

Central Massachusetts Talent Retention Project



Prepared for
The Commonwealth of Massachusetts
Executive Office of Economic Development
and the
Central Massachusetts Regional Competitiveness Council

By



The Research Bureau

May, 2006

Acknowledgements

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We also express our appreciation to the members of the project's steering committee (listed in Appendix A), who invested substantial time and energy providing overall project guidance, reviewing draft survey instruments, and participating in the development of recommendations. Their insight, enthusiasm, and commitment to the project have been instrumental to its success. And a special thank you to the representatives of the colleges and their staff whose efforts to facilitate and promote the online survey yielded more than 1,000 completed student surveys.

We would also like to thank the representatives of the 25 area employers who gave their time to meet with us and share their perspectives. We appreciate their candid and thoughtful responses.

Special thanks to Assumption College and Ron Scott, who developed the online version of the student survey and oversaw its administration. We also appreciate the Colleges of Worcester Consortium's willingness to post the student survey on its website.

Executive Summary

The Commonwealth of Massachusetts, known for its knowledge-based economy, is highly dependent on a well-trained workforce. Policymakers, business, and community leaders in Central Massachusetts are concerned that the Region may be experiencing a “brain drain” and losing a significant portion of its younger and highly educated population to other regions of the country.¹ There is ample anecdotal evidence that a substantial portion of the Region’s recent college graduates do not choose to remain here following graduation. In fact, the issues of “brain drain” and “talent flight” are not unique to the Central Region, and increasingly, attention is being paid to these issues on a statewide basis since the loss of well-trained young workers has the potential to adversely affect the Commonwealth’s overall competitiveness. Since Massachusetts has a higher than average concentration of high-tech, finance, and health care firms compared to the US as a whole, a greater proportion of jobs in Massachusetts are professional or technical jobs requiring an associate’s degree or higher.²

The Central Massachusetts Region is home to fifteen colleges and universities that enroll more than 35,000 students annually and graduate approximately 5,000 students each year. This report describes the results of the first comprehensive survey to document these students’ post-graduation career and location decisions and the factors influencing their decisions to remain in or leave the Region. In the Spring of 2005, The Research Bureau, with the support and cooperation of the 15 area colleges and universities, conducted a web-based survey of students (both undergraduate and graduate) expecting to graduate in 2005 to determine their post-graduation career and location decisions and factors influencing those decisions. The survey was completed by 1,087 students (19% response rate). Following the completion of the student survey component of the project, Research Bureau staff conducted one-on-one interviews with a representative sample of 25 employers in the Region to assess their hiring needs and recruitment practices, and the skills and knowledge they are seeking in recent college graduates to meet their workforce needs. The findings from these activities suggested a number of opportunities for colleges, business leaders, and the community to work together to enhance talent retention and the economic prosperity of the Region.

¹ According to the US Census Bureau, the number of 20-29 year olds living in Worcester County decreased by 25% from 1990 to 2000.

² Massachusetts Division of Unemployment Assistance, Economic Analysis Department, “The Massachusetts Job Outlook through 2010.” <http://www.detma.org>

Key Findings

Results of student surveys

- The Central Region is losing more graduates than it retains. 38% of the soon-to-be graduates surveyed intended to stay in the Central Region, 48% were leaving, and 14% were undecided.
- Since half of those who are leaving do not have firm plans and two-thirds of those still looking for jobs said they were leaving, these may be groups who need to learn more about opportunities in this region.
- When asked how they rated opportunities to learn about local employers and employment opportunities, only 8% of respondents gave the highest rating of “excellent.”
- Almost 70% of respondents indicated that career opportunities and associated pay and benefits were important factors when deciding where to locate.
- Two-thirds of those students for whom career opportunities were important factors think that employment prospects in the Region are good.
- Housing availability and affordability were important to 61.5% of respondents, and more than half of these individuals believe that housing costs in the Central Region are reasonable.
- Climate and social/cultural activities were important to considerably fewer respondents, with 36% and 52%, respectively, rating these factors as “important” or “extremely important”.
- Connections to employers and the community made during college appear to be one factor influencing post-graduation plans: 47% of those who worked off campus and 41% of those who participated in an internship in the Region planned to stay here.

Results of Employer Interviews

- Employers are seeking recent college graduates with prior experience, either through employment, internships or volunteer or community service.
- Employers are also looking for individuals with strong analytical skills, strong oral and written communication skills, and who have a strong work ethic and the potential to grow into a leadership position.
- Employers reported generally finding candidates lack workforce experience, well-honed analysis and writing skills, and an awareness of career opportunities and industries in the Region.
- About half of those employers interviewed have used student interns and view internships as a way to test out a potential hire.
- Many smaller companies do not use interns because of the difficulties negotiating the arrangements to secure one, and the time commitment required for supervision.

In conjunction with the administration of both surveys, we met with human resources directors and other senior managers at a number of area businesses, college career counselors, and other college administrators. We learned that many employers and colleges have specific arrangements with one another to connect employers and college students. We believe, however, that all parties could benefit from more focused and coordinated activities that could help to improve talent retention among the Region's college graduates. Since the survey findings indicated that students base their location decisions primarily on the availability of career opportunities, we concluded that colleges and employers need to develop a series of action steps that would build stronger connections between college students and employers in the Region. Those recommendations are presented at the conclusion of this report.

Background

The Central Massachusetts Talent Retention Project is a product of Governor Romney's initiative to identify and build on the assets in each of the Commonwealth's six regions to create more jobs and expand economic opportunities statewide. In early 2003, he established six Regional Competitiveness Councils that were charged with conducting in-depth analyses of their region's economic climate and developing projects that would advance the goals of job growth and economic development within the region. Analysis of the Central Region's economy identified education and knowledge-creation as one of the Region's key strengths. Central Massachusetts is home to fifteen colleges and universities that enroll more than 35,000 students annually and graduate approximately 5,000 students each year. The Central Massachusetts Regional Competitiveness Council identified the ability to retain a greater proportion of the "home grown" talent graduating from these institutions as a priority, since this talent pool could enhance the competitiveness and attractiveness of the workforce to existing employers and to those interested in establishing businesses in the Region. It is also a pool of potential entrepreneurs.

The questions the Central Massachusetts Talent Retention Project sought to answer were: 1) how much of this talent are we currently retaining, and 2) how can the Region attract more college graduates to remain here, or, for that matter, in the Commonwealth.

Methodology

The study was conducted by the Worcester Regional Research Bureau in collaboration with a Steering Committee composed of representatives from the fifteen colleges in the Region, the Worcester Regional Chamber of Commerce, the Colleges of Worcester Consortium, the UniverCity Partnership, the City of Worcester, and several area businesses. The purpose of the Central Massachusetts Talent Retention project was threefold:

- Through a survey of 2005 college graduates, we wanted to determine the extent to which the Central Region retains students who graduate from the fifteen colleges in this area, the basis on which they make post-graduation location decisions, and their acquaintance with employment opportunities, and social and cultural assets in the Central Region;
- Through interviews with a representative sample of employers in the Region, we wanted to assess their hiring needs and recruitment practices, and the qualifications they are seeking in recent college graduates;
- To develop a series of recommendations that would improve talent retention in the Region.

This report summarizes the key findings from the student survey and employer interviews and offers recommendations to help the Region meet the overall goals of increasing its competitiveness in today's knowledge economy by retaining a greater proportion of its graduates.

How Graduates Decide Where to Live

In order to attract and retain businesses, a region must have an educated workforce, local institutions of higher education granting degrees, and the ability to keep students after they graduate. While the Central Region does well on the first and second requirements, it seems to be struggling to retain its own graduates. According to the US Census Bureau, the number of 20-29-year olds living in Worcester County decreased by 25% from 1990 to 2000.

The Talent Retention Survey was designed to determine what percent of students leave the Region following graduation, and to identify key factors that students weigh when making career and location decisions. Of the approximately 5,000 students graduating from the fifteen colleges in the Central Region, 19% responded to our online survey in the spring of 2005.

Respondent Characteristics

- Almost two-thirds (65%) of respondents expected to earn a Bachelor's degree (*Figure 1*)
- The respondents included students in virtually all fields of study offered at the area institutions (*Figure 2*)
- More than half (59%) of respondents' hometowns are outside the Central Massachusetts Region
- About 70% of respondents were between the ages of 20 – 25
- 33% of respondents were male; 67% were female
- 84% of respondents were white; 5.2% were Hispanic or Latino

Figure 1
Degree Respondents
Expected to Earn
(n=1,073)

Figure 2
Fields of Study (n=1,077)

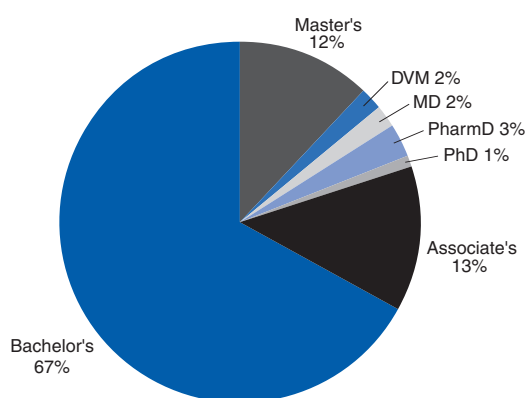


Figure 1

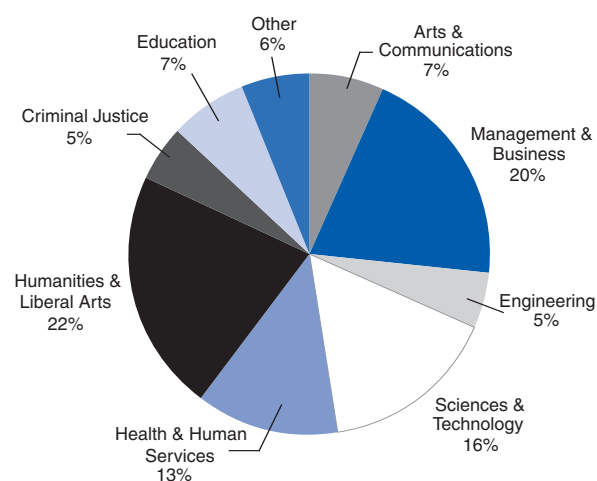


Figure 2

³ When asked to select factors that contributed to their decision to leave, respondents were asked to "check all that apply." Therefore the percentages do not sum to 100%.

The Region is losing more graduates than it is retaining: 38% of all respondents plan to stay in the Region, 48% intended to leave, and 14% were still undecided as to where they would live following graduation. The survey found that 22% of respondents who grew up outside the Central Region planned to stay in the Region following graduation. Among those who grew up in the Region, a much higher proportion (63%) planned to stay in the area. When respondents who stated they were leaving were asked to identify factors that contributed to their decision to leave, 31% cited a desire to move closer to friends and family. Of these 31%, the vast majority came from outside the Region. Additionally, 31% of respondents did not consider Central Massachusetts a desirable place to live, and 28% planned to pursue further academic study elsewhere. About one in five leavers (21%) perceived a lack of local job opportunities in their field.³ The highest concentration of leavers (22%) were leaving the Central Region to live in the Boston metropolitan area. *Table 1* details the location decisions for **all** respondents. More respondents who were leaving the Central Region were leaving for other areas in the Northeast than for the Sunbelt or West.

Post-graduation plans for respondents staying in the Central Region are shown in *Figure 3* and plans of respondents who are leaving or undecided about where they will live are detailed in *Figure 4*. Overall, two-thirds of those respondents still looking for jobs said they were leaving. Half of the students who are leaving/undecided did not have firm plans (either a job or plans to continue their education). Some portion of these students may represent a pool of talent that could be attracted to remain in the Region.

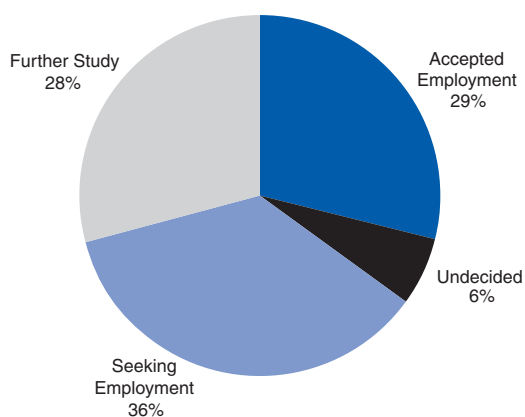


Figure 3

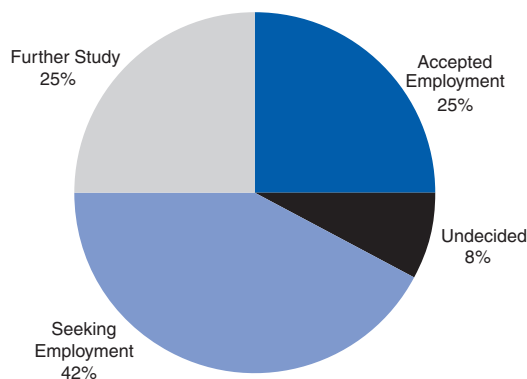


Figure 4

Figure 3
Plans of Respondents
Staying in the
Central Region

Figure 4
Plans of Leavers

	%	#
Central MA	38.2%	415
Boston Area	13.2%	144
Other Northeast	10.2%	111
NYC Metro Area	4.4%	48
Hartford	1.8%	20
Mid Atlantic	2.8%	30
South	3.9%	35
Outside the US	1.7%	18
Providence	1.6%	17
Springfield	1.3%	14
Washington DC Metro Area	1.2%	13
Undecided/Don't Know	14.6%	159
Midwest/Central	1.9%	20
West	3.9%	42

Table 1
Where do you plan
to live following
graduation?

Respondents were asked to rate the importance of a number of factors when deciding where to live following graduation (see Table 2 below). More than two-thirds (about 70%) of all respondents indicated that job opportunities/long term career prospects were an “extremely important” or “important” factor in determining where they would live after graduation. Slightly less than two-thirds of respondents rated pay and benefits levels in their field as an “extremely important” or “important” factor in deciding where to live following graduation. Housing availability and affordability were important to 61.5% of respondents. In other words, students are most concerned about “bread and butter” issues when determining their post-graduation location.

Of importance to fewer graduating students were public safety (57.5%), opportunities for further education (54.4%), and social life, arts and cultural activities (52.4%). Proximity to outdoor activities (33%) and having a good public transportation system (31%) were of importance to the least number of respondents. In fact, nearly one-quarter of all respondents indicated that a good public transportation system was “not important at all” when deciding where to live.

Although the discussion about why young people leave the Region often focuses on cultural amenities and factors such as climate, the data presented here suggest that economic factors such as the availability of jobs and good wages were important to far greater numbers of respondents compared to these other factors when making their location decisions.⁴

⁴ Earlier in the report we noted that a substantial portion of respondents who were not originally from the Region were leaving in part to be closer to friends and family. While this factor is beyond the control of any community, job opportunities, which are of importance to about 70% of all respondents, may be affected by public policy.

Table 2

Considerations when
deciding where to live

	Extremely Important			Not Important at All	
	1	2	3	4	5
Career Prospects	49.4	20.4	9.7	8.7	11.7
Pay and benefits in field	35.6	28.3	16.8	9.9	9.4
Housing availability and affordability	32.5	29	18.9	10.3	9.3
"Feel" of the city	29.9	29.4	19	11.9	9.8
Overall public safety/low crime	28.7	28.8	23.9	11.9	6.8
Opportunities for furthering education	27.2	27.2	20.2	14.7	10.8
Social life/arts and cultural activities	21.7	30.7	25.7	13.3	8.6
Being near friends or family	20.9	28.8	26.8	14.2	9.2
Climate	12.6	23.7	36.8	14.9	12.1
Cultural diversity	14.5	19.4	34.7	18.1	13.3
Close proximity to outdoor activities	11.7	21	32	21.5	13.7
Good public transportation	14.7	16.2	23.3	23	22.8

The Central Region's Strengths and Challenges

What do students think of the Central Region as a place to live after graduation? Of those who rated job opportunities and career prospects as important in their location decision, 69% believe that the Central Region's economy is strong and offers good job prospects, and 65% agreed that the Region offers good pay and benefits in their field. But most have not had the opportunity to learn about employers or employment in the Region. Only 8% of respondents rated these opportunities as "excellent." Yet exposure to those opportunities may well influence students' post-graduation location decisions. Sixty-five percent of survey respondents worked for pay off-campus during college. Of those, almost half (47%) are staying in the Region. More than one-third (37%) of respondents participated in an internship in the Region, and 41% of those who interned are staying in the Region (see *Table 3* for additional detail about students' participation in internship, volunteer, and employment opportunities while in school). Making employment connections during college and having the opportunity to venture forth from the campus and learn more about a community provides the student with better information when deciding where to live after graduation.

Table 3

Thinking back over the
past 12 months, please
indicate about how many
hours per week you
engaged in the following
activities.

Activity	Never	Fewer than 10 hours	10 – 20 hours	More than 20 hours
Work at an off-campus job (n= 1,080)	35%	15%	19%	30%
Work at a job on campus (n= 1,078)	59%	21%	17%	4%
Participate in volunteer/service work (n= 1,080)	31%	52%	11%	6%
Participate in an internship or co-op in the Central Massachusetts Region (n= 1,078)	63%	12%	12%	13%
Attend job fairs/networking or other job seeking events (n= 1,078)	46%	48%	5%	1%

On the other hand, students are well aware of the opportunities to pursue graduate studies in this Region. Eighty-five percent of respondents, who rated opportunities for further education as very important in deciding where to live following graduation, agreed that the Central Region offers good opportunities in that regard. In fact, 28% of those staying after graduation are doing so to continue their studies. Of those students for whom housing availability and affordability were important criteria in deciding where to locate, more than half (54%) believe that housing costs in the Central Region are reasonable.

While social activities and cultural events were important to many fewer respondents than career prospects when deciding where to locate, among those for whom these were important criteria, 66% agreed that the Central Region offers a good range of social and cultural opportunities. See *Table 4* for additional detail about the frequency with which respondents participated in various activities.

Activity	Once/Week	Once/Month	Several Times	Once	Never
Shopping-Groceries	47.8%	27.4%	18.9%	2.2%	3.7%
Dining Out	36.7%	28.9%	28.4%	3%	3%
Shopping-Books/Music	7.4%	24.7%	48.6%	8.6%	10.7%
Shopping-Clothing	5.6%	26.5%	50.7%	8.6%	8.7%
Biking/Hiking	5.1%	10.2%	23.5%	19.1%	42.1%
Shopping-Electronics	2.6%	12.3%	40.2%	19.4%	25.4%
Attending Movies	2.1%	18.9%	56.2%	14.1%	8.7%
Attending Sporting Events	1.9%	6%	26.9%	18.4%	46.8%
Skiing	1%	2.4%	8.8%	11.9%	75.8%
Attending Theatre	0.6%	3.4%	28.5%	26.8%	40.7%
Attending Museums	0.4%	1.9%	18%	28.2%	51.5%

Table 4
During the past 12 months, how often have you engaged in the following activities off-campus and in the Central MA region?

Employer Perspectives

During the summer of 2005, in-depth interviews were conducted with twenty-five employers representing a wide range of businesses in the Central Region. The purpose of these interviews was to assess business hiring practices, relationships with colleges and universities in the region, and qualifications these businesses are seeking in recent college graduates.

We found that the vast majority of firms recruit locally, although their means of recruiting differ. They attend job/career fairs, work directly with college career offices, utilize college alumni networks, employ interns as potential permanent hires, and use online posting sites such as monster.com and industry-specific sites. Most do relatively little on-campus interviewing. While virtually all employers view interns as a benefit, only about half engage them regularly primarily because of the difficulty in allocating staff time required for supervision.

When recruiting recent college graduates, employers are looking for candidates with prior experience through employment, internships, or volunteer or community service. Oral and written communication skills, analytical and problem-solving skills, exhibiting a strong work ethic and initiative, and ability to collaborate in teams are all essential from the employers' perspective. Many of those interviewed, however, found that candidates typically lacked workforce preparedness and the necessary analytical and communication skills. Recent graduates seem to have unrealistic expectations regarding starting positions, salaries, and speed of advancement; they reported the graduates are interested in gaining skills quickly and moving on to better opportunities. Finally, employers found that students, for the most part, are unaware of the career opportunities and kinds of firms conducting business in the region.

College and University Perspectives

Upon completion of the student survey and the employer interviews, we shared our findings with the staffs of the college career offices in the Region. It should come as no surprise that the job search and recruitment process has changed radically in the last decade with students and employers increasingly using the Internet to advertise, search for, and apply to positions. According to professionals in college career offices, for many students, the Internet has become students' primary job search tool. But in many cases, they have been disappointed with the results. Students report to the college career professionals that they rarely receive responses to their online resume submissions. There is a sense that their applications have gone down a "black hole." By relying so heavily on the Internet, students, according to these professionals, are neglecting college resources that would assist them in developing resumes, preparing for interviews, and accessing various networks available through the college. In addition, some of the college career services staff we interviewed indicated difficulty in establishing contact with companies in the Region to learn about employment opportunities for students and recruitment procedures.

Opportunities for the Central Region

Based on the student survey and interviews with employers and college administrators, The Research Bureau, in collaboration with the project's steering committee, identified several steps that should be taken to facilitate a more coordinated approach between the colleges and the Region's employers that would benefit both as well as the students attending college here. These steps include the following:

- Provide opportunities for the college and university career services staffs and other college administrators and professors to become more familiar with the Region's employers, employment opportunities, and the skills and qualifications employers are seeking in candidates. Employers could host such individuals on-site at their facilities for this purpose.
- Provide opportunities for students to meet with local employers early in their college careers to inform students about career and employment opportunities in the Region. These opportunities could consist of colleges hosting informal gatherings for employers to meet with students at their campuses and the employers opening their facilities to students through programs similar to the "Hub Crawl" sponsored by the Greater Boston Chamber of Commerce. At these events, there are panel discussions including senior management and recently-hired college graduates that address various facets of the company and the working environment. This is followed by informal networking and a tour of the facility.
- Provide opportunities for high school students to learn about careers and employment opportunities in the Region in a similar way to those described above.
- Establish a website that will serve as an "internship clearinghouse" for all students and employers in the Region. Ideally, the website will enable any employer in the Region to post internship opportunities online and search student resumes. For students, the website will provide expanded access to internship opportunities and employer profiles, and the ability to both submit and post a resume online. The development of this tool will require a partnership involving colleges and universities, the public sector, private employers and non-profit organizations in the Region.

The results of this project and the recommendations contained in this report are important for policymakers, employers, the area's institutions of higher learning, and others concerned about improving the region's ability to retain a higher proportion of its "home grown" talent. Retaining and attracting young highly-educated individuals will enable the Central Region to be more competitive and attractive to employers than it would be otherwise.

Appendix A *Steering Committee Members*

Fred Baus, *Colleges of Worcester Consortium, Inc.*

Mark Bilotta, *Assumption College*

Richard Burke, *Fallon Community Health Plan*

Terrance Carroll, *Fitchburg State College*

Al Cotton, *Nypro Inc.*

Melissa Delaney,
Mount Wachusett Community College

Jack Foley, *Clark University*

Gerald Garrity, *Anna Maria College*

Len Harmon, *Nichols College*

Kevin Kearney, *Massachusetts College of
Pharmacy and Health Sciences*

Richard Kennedy, *Worcester Regional
Chamber of Commerce*

Timothy Loew, *Becker College*

Linda Looft, *Worcester Polytechnic Institute*

Konstantina Lukes, *Worcester City Council*

Joseph McManus, *Cummings School of Veterinary Medicine at Tufts University*

Paul Morano, *City of Worcester*

Charlene Nemeth, *UMass Medical School*

Issumael Nzamutuma, *Atlantic Union College*

Katherine Robertson, *College of the Holy Cross*

Victor Somma, *Quinsigamond Community College*

Jeanne Woroski, *Saint Gobain Abrasives Inc.*

Michael Wronski, *Worcester State College*

Appendix B Student Survey

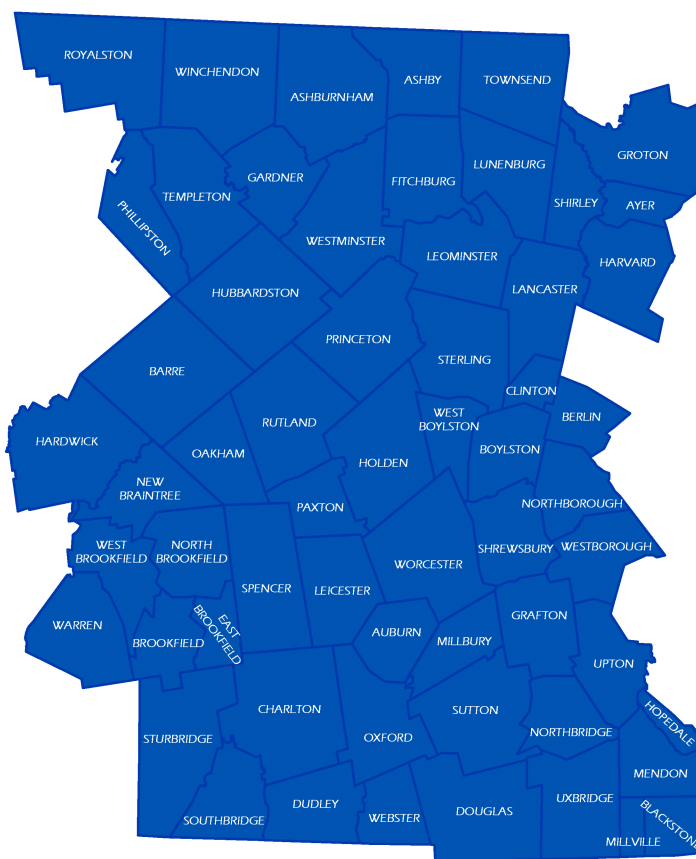


The Research Bureau

The fifteen colleges of the Central Massachusetts region and many of the region's leading employers are very interested in your opinion of this region as a place to attend college and to engage in post-college employment. We also want to know whether you've had an opportunity to participate in the cultural and recreational opportunities in the area. Your responses to the survey that follows (which should take 5-10 minutes to answer) will be used to build on what you consider to be assets of this region and to improve those elements, which if improved, might provide a better college experience for those who succeed you. The Worcester Regional Research Bureau, a private, non-profit, non-partisan public policy research organization, is coordinating this project and will publish the results in the fall. All of your answers will remain anonymous; the results will be shown in the aggregate. (To learn more about the Research Bureau, go to www.wrrb.org.)

Thank you for your cooperation in answering this survey both thoughtfully and honestly. We wish you every success in your post-graduation plans.

Note: Many of the questions below refer to the Central Massachusetts Region. The following map outlines the area we've defined as the Central Region for the purposes of this project.



1. Do you expect to graduate in 2005? ☐Yes ☐No (If no, do not continue survey)

2a. What degree will you earn?

☐Associate's ☐Bachelor of Arts ☐Bachelor of Science ☐Master's (Business Administration) ☐Master's (Other)
☐Certificate ☐PhD ☐MD ☐PharmD ☐DVM ☐Other (Please Specify:_____)

2b. What school do you currently attend? (Respondent will choose from dropdown menu.)

2c. How long have you been enrolled at this institution (in your current degree program)?

☐1 year ☐2 years ☐3 years ☐4 years ☐5 years ☐6 or more years

2d. Which of the following best describes your current field of study?

(Please choose only one; if you have more than one field of study, please select your primary field of study.)

Arts & Communications:

- ☐ Art History
- ☐ Communications
- ☐ Film and Electronic Media
- ☐ Graphic Design
- ☐ Journalism
- ☐ Interior Design
- ☐ Performance Arts (Dance, Theatre, Music)
- ☐ Visual Arts/Photography
- ☐ Other

Management and Business Studies:

- ☐ Accounting
- ☐ Business Administration
- ☐ Business Management
- ☐ Economics
- ☐ Entrepreneurship/Small Business

Management

- ☐ Finance
- ☐ Health Care Administration
- ☐ Health Care Management
- ☐ Hotel and Restaurant Management
- ☐ Human Resources Management
- ☐ Labor Studies/Labor Relations
- ☐ Management Information Systems
- ☐ Marketing
- ☐ Non-Profit Management
- ☐ Office Support/Clerical
- ☐ Public Administration/Public Policy
- ☐ Sports Management
- ☐ Other

Engineering:

- ☐ Aerospace Engineering
- ☐ Biomedical Engineering
- ☐ Chemical Engineering
- ☐ Civil Engineering
- ☐ Computer Engineering
- ☐ Electrical Engineering
- ☐ Fire Protection Engineering
- ☐ Industrial Engineering
- ☐ Manufacturing Engineering
- ☐ Materials Engineering
- ☐ Mechanical Engineering
- ☐ Nuclear Engineering

Sciences and Technology:

- ☐ Animal Sciences
- ☐ Biochemistry
- ☐ Biology
- ☐ Biomedical Science
- ☐ Biotechnology
- ☐ Chemistry
- ☐ Computer Science
- ☐ Fire Sciences
- ☐ Geographic Information Systems
- ☐ Mathematics
- ☐ Physics
- ☐ Veterinary Medicine
- ☐ Other

Health Care and Human Services:

- ☐ Counseling
- ☐ Dentistry
- ☐ Human Services/Social Work
- ☐ Medicine
- ☐ Nursing
- ☐ Pharmacy
- ☐ Physical Therapy
- ☐ Public Health
- ☐ Other

Humanities/Liberal Arts:

- ☐ English
- ☐ Foreign Language
- ☐ General Studies
- ☐ Geography
- ☐ History
- ☐ Music
- ☐ Political Science/Government
- ☐ Psychology
- ☐ Sociology
- ☐ Religious Studies
- ☐ Other

Criminal Justice:

- ☐ Criminal Justice
- ☐ Emergency Management

Education:

- ☐ Early childhood, elementary, secondary
- ☐ Special Education
- ☐ Post-secondary

3a. Do you consider one of the region’s cities or towns your “home town” (i.e., the place you most associate with where you grew up?) (See Central Region map on page 1.) ☐Yes ☐No

3b. What is the five-digit zip code for your home town/area you considered home prior to enrolling at your current institution? _____

4a. Where do you plan to live following graduation?

- | | |
|--|--|
| <input type="checkbox"/> Undecided/Don’t Know <Skip to Q5 | <input type="checkbox"/> Portland, OR |
| <input type="checkbox"/> Central MA/Worcester Region<Skip to Q4c | <input type="checkbox"/> Providence, RI |
| <input type="checkbox"/> Atlanta, GA | <input type="checkbox"/> Raleigh-Durham, NC |
| <input type="checkbox"/> Austin, TX | <input type="checkbox"/> San Francisco–Oakland–San Jose, CA |
| <input type="checkbox"/> Baltimore, MD | <input type="checkbox"/> San Diego, CA |
| <input type="checkbox"/> Boston Metro Area | <input type="checkbox"/> Santa Fe, NM |
| <input type="checkbox"/> Cleveland, OH | <input type="checkbox"/> Seattle, WA |
| <input type="checkbox"/> Chicago, IL | <input type="checkbox"/> Springfield, MA |
| <input type="checkbox"/> Cincinnati, OH | <input type="checkbox"/> Stamford – New Haven, CT |
| <input type="checkbox"/> Dallas – Fort Worth, TX | <input type="checkbox"/> Tampa, FL |
| <input type="checkbox"/> Denver, CO | <input type="checkbox"/> Washington DC Metro Area |
| <input type="checkbox"/> Detroit, MI | <input type="checkbox"/> Outside the US |
| <input type="checkbox"/> Hartford, CT | <input type="checkbox"/> Other: Northeast (CT, MA, ME, NH, RI, VT) |
| <input type="checkbox"/> Houston, TX | <input type="checkbox"/> Other: Mid-Atlantic (DE, MD, NJ, NY, PA,) |
| <input type="checkbox"/> Las Vegas, NV | <input type="checkbox"/> Other: South (AL, AR, FL, GA, KY, LA, MS, MO, NC, SC, TN, VA, WV) |
| <input type="checkbox"/> Los Angeles, CA | <input type="checkbox"/> Other: Midwest/Central (IA, IL, IN, KS, MI, MN, NE, ND, OH, OK, SD, TX, WI) |
| <input type="checkbox"/> Miami, FL | <input type="checkbox"/> Other: West (AZ, CA, CO, ID, MT, NM, NV, OR, UT, WA, WY) |
| <input type="checkbox"/> New York City Metro Area | <input type="checkbox"/> Other: Alaska or Hawaii |
| <input type="checkbox"/> Pittsburgh, PA | |
| <input type="checkbox"/> Philadelphia, PA | |
| <input type="checkbox"/> Phoenix, AZ | |
| <input type="checkbox"/> Portland, ME | |

4b. Which of the following factors contributed to your decision to leave the Central Massachusetts area following graduation? (Please check all that apply.)

- ☐ Desire to be closer to friends and family in another region
- ☐ Spouse/significant other has job in another location
- ☐ Lack of job opportunities in my field
- ☐ I do not consider the area a desirable place to live
- ☐ The cost of living is lower elsewhere
- ☐ I plan to pursue additional studies elsewhere
- ☐ Other (Please specify:_____)

4c. How long do you anticipate staying at the location you identified in Q4a above?

- ☐Less than 1 year ☐1-2 years ☐3-5 years ☐More than 5 years
☐Indefinitely ☐Not sure

5. Which of the following best describes your work or school plans following graduation? (Please choose only one.)

- ☐I have accepted full-time employment in my field of study
☐I am seeking full-time employment in my field of study
☐I have accepted part-time employment or employment in a field outside my course of study
☐I expect to be self-employed
☐I expect to engage in Military service
☐Further academic study- undergraduate
☐Other (Please specify: _____)
☐Uncertain/Don't know

6. Using a scale of one to five, where “1” equals “Extremely Important” and “5” equals “Not Important at All,” please rate the importance of the following factors when deciding where to live after graduation:

	Extremely Important				Not Important At All
a) Job opportunities/long term career prospects	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
b) The pay and benefit levels in my field	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
c) Housing availability and affordability	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
d) A good public transportation system	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
e) The “Feel” of the city, e.g., neighborhoods, culture, atmosphere, things to do	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
f) Social life/Arts and cultural activities (e.g., shopping, theatre, restaurants, nightlife, etc.)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
g) Cultural diversity	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
h) Opportunities for furthering my education	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
i) Climate	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
j) Close proximity to outdoor activities (e.g., hiking, climbing, skiing, water sports, etc.)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
k) Ease and cost of owning and operating a car (e.g., parking availability, maintenance and registration costs, etc.)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
l) Being near friends or family	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
m) Overall public safety/low crime rate	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

7. Thinking about the Central Massachusetts Region, please indicate your level of agreement with each of the statements below:

	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree	Unable to Assess
a) The area is economically strong/ there are good job prospects in my field	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
b) There is good support for job seekers (e.g., job fairs)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
c) The area generally offers good pay and benefits in my field	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
d) The cost of housing is reasonable	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
e) The public transportation system is strong	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
f) There are adequate social and cultural opportunities in the Region (e.g., shopping, theatre, restaurants, nightlife, etc.)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
g) There are adequate outdoor/recreational opportunities in or within close proximity to the region (e.g., hiking, climbing, skiing, water sports, etc.)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
h) The area is culturally diverse	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
i) There are good opportunities for further education in my field	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
j) The climate is desirable	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
k) I am near friends or family	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
l) I consider the area my home	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
m) Overall, the area is safe/crime rates are low	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

8. Thinking back over the past 12 months, please indicate about how many hours per week you engaged in the following activities:

	Never	Fewer than 10 hours	Between 10 and 20 hours	More than 20 hours
a) Work at an off-campus job	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
b) Work at a job on campus	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
c) Participate in volunteer/service work	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
d) Participate in an internship or co-op in the Central Massachusetts Region	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
e) Attend job fairs/networking or other job seeking events	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4

9. Overall, how would you rate networking or career related events/opportunities for students like yourself to learn about local employers and local employment opportunities (e.g., job fairs/recruiting events, online access to local job postings)?

☐ Excellent ☐ Good ☐ Fair ☐ Poor ☐ Unaware that opportunities exist

We're interested in knowing more about the types of off-campus activities students participate in while attending college in the Central Massachusetts Region.

10. During the past 12 months, how often have you engaged in the following activities off-campus and in the Central MA region:

	Never	Once	Several times	At least once/month	At least once/ week	
a) Outdoor/Recreational Activities- Biking or Hiking	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	\$_____
b) Outdoor/Recreational Activities- Skiing	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	\$_____
c) Attending Movies	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	\$_____
d) Attending Plays/Theatre Productions	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	\$_____
e) Attending Concerts	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	\$_____
f) Attending Museums	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	\$_____
g) Attending Sporting Events	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	\$_____
h) Dining Out (Including restaurants, cafes, coffee houses, bars, etc.)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	\$_____
i) Shopping – Food/Grocery	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	\$_____
j) Shopping – Books/Music/Videos	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	\$_____
k) Shopping – Electronics/Other Home Goods	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	\$_____
l) Shopping – Clothing	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	\$_____

b) Approximately how much have you spent on these activities during the past 12 months? _____

Please indicate a dollar amount next to the dollar sign for each activity you participated in.

The following questions are for demographic purposes only:

11a. In what year were you born? 19 __ __

11b. Are you: ☐ Male ☐ Female

11c. Which of the following best describes your racial background?

- ☐ American Indian or Alaska Native ☐ Asian ☐ Black or African American
☐ Native Hawaiian or Other Pacific Islander ☐ White ☐ Two or more races ☐ Other

11d. Are you Hispanic/ Latino? ☐ Yes ☐ No

Thank you for taking the time to complete this survey!

If you wish to be entered in a drawing to win one of several cash prizes, please provide your email address in the space below (additional contact information such as name and phone number are optional). We will only use this information to contact you if you are a winner, and we will not share your email address or response information with anyone.

Email Address: _____

OR

Name and Phone Number (Optional): _____

Appendix C Central Region Employers Interviewed by The Research Bureau

Acromatic Plastics
Allmerica Financial
Bank of America
BayState Savings Bank
Clark University
Commerce Insurance
Commonwealth National Bank
EMC Corporation
Fallon Community Health Plan
Family Health Center
Fitchburg State College
FLEXcon
Morgan Construction
National Grid
Nypro
St. Gobain Abrasives, Inc.
Stonebridge Corp.
TD Banknorth
UMass Medical School
UMass Memorial Medical Center
UnumProvident
Verizon
WPI
YOU, Inc.

* One employer wished to remain anonymous

Mission Statement:

*The Research Bureau serves the public interest
of the Greater Worcester region by conducting independent, non-partisan
research and analysis of public-policy issues to promote informed public
debate and decision-making.*



The Research Bureau

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