

Maine's College Graduates

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Where They Go *and* Why



Maine's College Graduates Where They Go and Why Finding Maine's Future Workforce

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The Center for Education Policy, Applied Research, and Evaluation (CEPARE), in the College of Education and Human Development of the University of Southern Maine, provides assistance to school districts, agencies, and organizations by conducting research, evaluation, and policy studies on a wide variety of education topics. In addition, CEPARE co-directs the Maine Education Policy Research Institute (MEPRI), an institute jointly funded by the Maine State Legislature and the University of Maine System. This institute was established to conduct studies for the Maine Legislature on Maine education policy and the Maine public education system. CEPARE may be contacted electronically at: cepare@usm.maine.edu



The Finance Authority of Maine (FAME) is an independent State agency that develops and administers programs related to the financing of both higher education and business in the State of Maine. FAME serves as the guaranty agency for the Federal Family Education Loan Program, and provides financial resources in the form of student grant, loan, and scholarship programs, as well as administration of the State's college savings plan. FAME also provides a wealth of information and outreach programs for Maine students and families designed to encourage young people to aspire to and pursue higher education opportunities. FAME's Commercial Division helps Maine businesses grow, expand and succeed through a broad array of innovative financial tools designed to help companies of all sizes, at all stages, achieve their business goals. FAME represents "Business and Education at Work for Maine."

Table of Contents

Executive Summary	i
Introduction	1
Methodology	2
Findings	4
Question 1: What factors influence where Maine high school graduates choose to attend college?.....	4
Question 2: What factors influence where Maine’s college graduates choose to live and work?	7
Question 3: How many Maine residents who leave the State to attend college return to Maine to complete their degrees, and to live and work?	9
Question 4: Are Maine’s best and brightest youth choosing to attend college outside of Maine, and are they choosing to live and work outside of Maine as well?	10
What Can Be Done?	12
Policy Recommendations	14
Summary	16
References and Sources	17
Appendix A – 2002 Higher Education Survey	19

Executive Summary

Approximately one-half of Maine's high school graduates leave Maine to attend college. Too little is known about the reasons for their decisions, how many leave initially, but return to earn their degrees from Maine institutions, and why Maine college graduates decide to live and work in Maine or in another state. *Where They Go and Why* attempts to answer these questions, and offers some strategies that could have a positive impact on those decisions in the future.

In spring of 2002, copies of the *Higher Education Survey 2002* were mailed to a sample population of Maine residents who had earned a college degree in 1998. Over 700 usable surveys were returned, yielding a return rate of approximately 25%.

Major findings include:

- The reputation of colleges, the quality of their programs, and school size are the most important factors to Maine's high school graduates in deciding where to attend college.
- Personal preferences for attending college in Maine or in another state, along with financial aid packages they were offered, are also significant considerations for Maine high school seniors.
- Many of the 1998 college graduates in the sample who left Maine initially to attend college, transferred back to a Maine college or university to complete their degree program.
- Approximately two-thirds of 1998 college graduates sampled chose to remain in Maine, or to return to Maine, to live and work.
- Where Maine's residents who have earned a college degree choose to live and work depends largely on whether family and social ties, or career opportunities are more important to them.
- Over one-half of Maine's best and brightest college graduates in 1998 chose to stay in Maine, or to return to Maine to earn their college degree.
- However, approximately three out of every four of Maine's best and brightest ultimately choose to live and work outside of Maine.

These findings indicate that Maine needs a long-range comprehensive plan for finding Maine's future workforce. This plan should include strategies such as better marketing of Maine's colleges and universities, the creation of centers of excellence degree programs, the development of a true community college system, more grant financial assistance programs, more targeted loan forgiveness programs, and increased employment opportunities.

Introduction

Today most policy makers, business leaders, and educators alike recognize that the economic viability of the State and the well-being of Maine's citizens are tied inextricably to education. At the K-12 grade levels we continue to experience considerable success in educating our future citizens. Maine consistently ranks in the top five in the nation in performance on the National Assessment of Educational Progress (NAEP) (15). Maine ranks 11th highest nationwide in the percent of seniors who graduate from high school in any given year, and Maine ranks first in the nation in the percentage of our 18-25 year-olds Statewide who have earned a high school diploma (11).

However, succeeding in the 21st Century requires more than a high school diploma. Many of Maine's jobs in the next decade and beyond will require at least an associate degree or higher. Even today, Maine's employers report shortages of skilled workers. Almost one-half of the employers surveyed recently reported they are having trouble finding employees with the skills they need in their organization (4).

Unfortunately, it is in this area of post-secondary educational attainment that Maine falls short. According to the 2000 U.S. Census, only about 24% of Maine's citizens have earned a baccalaureate degree (17). Thus, while Maine ranks very high in high school graduation rates, it ranks 33rd in the nation in the percent of high school seniors who enroll in college after graduation (11). Only about one-half of Maine's high school seniors enroll in college in the fall after high school graduation. Furthermore, approximately one-half of those who do enroll in college choose to attend institutions outside of Maine, and national statistics indicate that many college graduates decide to find jobs in the same state that they attended college (16).

Clearly, the personal economic well-being of Maine's citizens, as well as the economic viability and competitiveness of the State depend upon having a more highly educated workforce. Accordingly, Maine faces two major challenges in this decade: (1) increasing the number of high school seniors who aspire to, and actually enroll in college, and who earn a degree; and (2) increasing the number of college graduates who choose to live and work in Maine. Unquestionably, what is needed is a comprehensive plan that employs a wide range of strategies to meet these challenges. But first we must have a clearer understanding of the nature and scope of the problem. We need to know why Maine high school seniors are not enrolling in college, and we need to understand why so many of our students, who do go to college, decide to attend college, and later to live and work outside of Maine.

A recent study by the Mitchell Institute (8) provides some insight into the factors which may have an impact on students' post-secondary education aspirations. These factors include the influence of parents and family, community trends, and financial issues. The Mitchell Institute study has also identified a series of action steps designed to remove barriers to postsecondary education for Maine's students.

The study reported here was designed to address the second challenge Maine faces; that is, to better understand students' choices of where they will attend college, and where they will choose to live and work after college. We know that approximately one-half of Maine's high school graduates leave the State to attend college, but we do not know why, and we do not know how many return to Maine to finish their degree programs. We do not know how many either stay in Maine, or return to Maine, to live and work after college, and the reasons for these decisions. This study attempts to answer these questions, and suggests some strategies that may have a positive impact on these decisions in the future.

Methodology

The primary purpose of this study was to seek answers to four key questions:

1. What factors influence where Maine's high school graduates choose to attend college?
2. What factors influence where Maine's college graduates choose to live and work?
3. How many Maine residents who leave the State to attend college return to Maine to complete their degrees, and to live and work?
4. Are Maine's best and brightest youth choosing to attend college outside of Maine, and are they choosing to live and work outside of Maine as well?

To answer these questions, a survey entitled the **Higher Education Survey 2002 (HES 2002)** was mailed to a sample of nearly 3,400 Maine residents who had earned a college degree in 1998. The sample was drawn from loan borrowers who had at least one loan guaranteed from the Finance Authority of Maine (FAME). These loan borrowers were chosen as the sample for two primary reasons. First, most Maine college students rely on some type of loans to help pay for college, regardless of the type of institution they attend, or where they attend college. Thus, using FAME borrowers as the sample increased the likelihood that the sample is representative of Maine residents who attend college. Second, one of the major shortcomings of most studies of post-collegiate graduates is that they only represent very selective populations because of the inability to locate many graduates. Using the FAME sample increased the likelihood of having current mailing addresses for college graduates. The year 1998 was chosen to allow sufficient time for borrowers to have started their post-collegiate careers.

The **Higher Education Survey 2002** consisted of several sections dealing with the demographics, education, post-graduation work experiences, and future plans of respondents. Key sections asked respondents their reasons for selecting the college they attended, and why they chose to live and work either inside or outside of Maine. A copy of one version of the **HES 2002** survey appears in **Appendix A**. The surveys for other sub samples were similar, but customized to fit the specific characteristic of the sub samples.

The initial sample used in this study was 3,368 undergraduate borrowers who had at least one FAME guaranteed loan, and had a graduation date of May or June 1998. This sample was divided into four sub samples:

1. *Stay/Stay Sub Sample*: Maine residents who: (a) chose to attend college in Maine; and (b) chose to live and work in Maine after graduating from college (n=1000).
2. *Stay/Leave Sub Sample*: Maine residents who: (a) chose to attend college in Maine; but (b) chose to live and work outside of Maine after graduating from college (n=1238)
3. *Leave/Return Sub Sample*: Maine residents who: (a) chose to attend college outside Maine; but (b) chose to return to live and work in Maine (n=595)
4. *Leave/Leave Sub Sample*: Maine residents who: (a) chose to attend college outside Maine; and (b) chose to live and work outside Maine (n=535)

The **Higher Education Survey 2002** was mailed to each individual in the sample in early May, 2002, with a second mailing following in early June, 2002. Survey recipients were given a choice of completing the survey online at an internet website, or returning the completed survey in a pre-addressed postage-paid envelope. **Table 1** reports survey distribution and return information. Of the 3,368 surveys that were mailed, 540 were returned as non-deliverable for various reasons. This reduced the accessible sample to 2,828. A total of 711 usable surveys were returned, for a return rate of approximately 25%. An analysis was undertaken to determine if the 711 respondents were representative of the accessible sample. This analysis of demographic characteristics of the respondents, and an analysis of the type of institutions they graduated from, indicated that the 711 individuals who completed surveys were representative of the total accessible sample.

Table 1
Survey Distribution and Return Samples

	Stay/ Stay	Stay/ Leave	Leave/ Return	Leave/ Leave	Totals
Population Samples	2773	1238	595	535	5141
Surveys Mailed	1000	1238	595	535	3368
Total Deliverables	889	988	535	416	2828
Returned Surveys	228	228	86	169	711
Percent Return Rates	25.6%	23.1%	16.1%	40.6%	25.1%

The survey results have provided a wealth of information on the sample of college graduates. What is reported here are the findings on the four key questions. Additional analysis of the results will be released in subsequent reports. However, before turning to the four questions, an analysis of the types of institutions the graduates attended provides some interesting information about this group of 1998 graduates.

Findings

As shown in **Table 2**, almost a third (31.3%) of the graduates in the accessible sample who stayed in Maine to earn a degree, and remained in Maine to live and work, graduated from two-year institutions. Few Maine residents in the other three groups graduated from similar two-year institutions (e.g., 0.6%-3.6%). And when looked at in the aggregate, over 60% of the graduates who earned their degree from a Maine institution (Stay/Stay and Stay/Leave groups) attended Maine’s *public* 2- year and 4- year institutions. In contrast, almost 70% of those who left after high school to attend college and earn a degree outside of Maine graduated from *private* colleges or universities.

Table 2
Profile of 1998 Graduates

	Stay/ Stay	Stay/ Leave	Leave/ Return	Leave/ Leave
Original Sample	2773	1238	595	535
Type of College Attended:				
Public Two-Year	31.3%	3.6%	2.4%	0.6%
Public Four-Year	45.5%	43.2%	33.3%	26.8%
Private Two-Year	0.9%	2.3%	4.8%	0.6%
Private Four-Year	22.3%	50.9%	59.5%	72.0%

Question 1:

What factors influence where Maine’s high school graduates choose to attend college?

“I think Maine colleges and universities have a solid reputation.”

“The schools (in Maine) are excellent and the costs are reasonable.”

“There are so many colleges in New England with outstanding reputations that it’s hard for the State university to compete.”

“Maine has a lot of great colleges and universities—I wanted a change of pace and environment when I went to college, which is why I went out of state.”

These quotes reflect the range of sentiments of respondents to the survey. **Table 3** reports the top three reasons students gave for attending a particular college. As may be seen from this information, approximately four out of five respondents indicated that reputation, and the quality of the program and college, were very important reasons for their decisions.

Table 3
Reasons for Choosing to Attend a Particular College

<u>Reasons</u>	<u>Very Important</u>	<u>Important</u>	<u>Fairly Important</u>	<u>Not At All Important</u>
1. It had a good program in my field.	45.2%	35.0%	13.1%	6.6%
2. Because of its reputation.	33.8%	43.1%	15.6%	7.4%
3. It was the appropriate size I was looking for.	38.8%	35.4%	14.8%	11.0%

The third most important factor was whether the college was the appropriate size for the student. *And, most importantly, the survey results revealed that these are the three top reasons regardless of whether the Maine high school graduate chose to stay in Maine to attend college or decided to attend college in another state.* Quality and school size is important to all of Maine’s post-secondary students, regardless of where they attend college.

Thus, reputation and quality play critical roles in decisions of where to attend college. This is clear. However, what is unclear from the survey results is how Maine’s seniors acquire information about the quality of programs in different colleges. **Table 4** reports respondent’s assessment of the roles teachers, guidance counselors, and parents play in their college decisions.

Only about a quarter of the respondents indicated their teachers played an important role in their decisions of where to attend college, and only about one in three said guidance counselors played an important role. Less than 15% said their parents played persuasive roles in their decision making. Thus, the survey results did not provide clear evidence on who, and what, are most influential in informing students about schools or colleges.

Table 4
The Role of Individuals in College Decisions

<u>Individuals</u>	<u>Very Important</u>	<u>Important</u>	<u>Fairly Important</u>	<u>Not At All Important</u>
1. It was recommended to me by a teacher.	4.4%	18.5%	24.9%	52.2%
2. It was recommended to me by a guidance counselor.	6.3%	24.7%	25.9%	43.1%
3. My parents persuaded me to stay/leave Maine.	6.9%	6.1%	12.6%	74.4%

Given that reputation and program quality are important factors for **all** Maine seniors when choosing which college to attend, what additional factors then influence their decisions of whether to attend college in Maine or another state? **Tables 5 and 6** report the next most important factors that respondents indicated were influential in their decision making process. **Table 5** reports reasons offered by those who choose to remain in Maine, and **Table 6** reports the reasons important for those who left Maine to attend college.

Table 5
Additional Reasons for Choosing a College:
Those Who Choose to Stay in Maine

<u>Reasons</u>	<u>Very Important</u>	<u>Important</u>	<u>Fairly Important</u>	<u>Not At All Important</u>
4. I wanted to stay in Maine to attend college.	47.3%	22.5%	11.7%	18.4%
5. It was affordable.	40.2%	28.5%	17.2%	14.1%
6. Because of the financial aid package I was offered.	26.4%	34.3%	21.2%	18.1%

For both groups the most influential reason, after reputation, program quality, and size, was whether they wanted to stay in Maine to attend college or not. Over a third of each group listed this choice as the fourth most important factor in their decision. This was followed closely, in both groups, by the nature of the financial aid package they were offered.

Table 6
Additional Reasons for Choosing a College:
Those Who Choose to Leave Maine

<u>Reasons</u>	<u>Very Important</u>	<u>Important</u>	<u>Fairly Important</u>	<u>Not At All Important</u>
4. I wanted to leave Maine to attend college.	41.5%	24.9%	13.7%	20.0%
5. Because of the financial aid package I was offered.	36.3%	27.9%	21.9%	14.0%
6. I liked the cultural and social life offered by the college and/or area.	20.9%	39.6%	27.8%	11.7%

Thus, in answer to the first question, it appears Maine high school graduates are concerned, first and foremost, about the reputation and quality of colleges, and school size, when they are choosing a college to attend. A second key factor is their personal preference for attending college in-state or in some other state. The financial aid package offered individuals also plays an important role. It appears, then, that a combination of the reputation of a college, their living preferences, and the financial aid package offered dictate, in large measure, where Maine’s high school graduates decide to attend college.

The analysis of the survey results indicated that there are some additional characteristics that distinguish Maine graduates who choose to attend college in Maine, from those who choose to attend college in some other state. As **Table 7** shows, twice as many high school graduates who attend college out-of-state attend private colleges. If the high school graduate chooses to attend college in Maine, about one in four will be part-time students, and about two-thirds will have received some financial help from their parents. Over 40% will have financed a majority of their education with loans. It is understandable then that those who stayed in Maine cited affordability as a major consideration. In contrast, the high school graduates who left Maine to attend college, most likely were full-time students, less than one-third financed a majority of their education with loans, and over 80% received some financial assistance from their parents.

Table 7

Some Characteristics of Maine Residents Attending College

<u>Characteristics</u>	<u>Attend College in Maine</u>	<u>Attend College Outside of Maine</u>
1. Attend private college or university.	38.0%	76.2%
2. Non-traditional student.	27.9%	6.1%
3. Received some financial help from parents.	63.8%	83.6%
4. Student loans financed above 50% of cost.	44.1%	32.8%

Question 2:

What factors influence where Maine’s college graduates choose to live and work?

“The quality of life in Maine is what kept me and my husband (also a Maine graduate) in Maine after college.”

“I have at times considered leaving Maine to pursue teaching in a state that values their teachers more, but I haven’t and probably never will, because I love Maine too much.”

“The only reason I left Maine was because I could not afford to pay back my loans and live with what I was offered for jobs.”

“I would return to Maine if I could find a job there with pay better than or equal to what my job in Massachusetts pays in my field.”

These quotes from four different respondents are representative of the range of opinions expressed by the 1998 graduates. These also represent the dichotomous nature of most responses. Those who chose to live and work in Maine did so for very different reasons than those who chose to live and work outside of Maine. For example, **Table 8** reports the five most important reasons respondents gave for choosing to stay in Maine, or to return to Maine, after earning a college degree. Seven out of ten respondents said that an important factor in their decisions to live and work in Maine was that they found a job

they wanted, *but familial and social considerations were even more important reasons.* Over 90% reported that the most important reason was their desire to live closer to family and friends, and three out of four indicated they wanted to follow the wishes of their spouse or partner. On the other end of the scale, the survey results revealed only 25% of the respondents reported that career opportunities, or pay and benefits, were important factors in their decisions.

Table 8
Reasons for Living and Working in Maine

<u>Reasons</u>	<u>Very Important</u>	<u>Important</u>	<u>Fairly Important</u>	<u>Not At All Important</u>
1. I wanted to live closer to family and/or friends.	67.0%	25.0%	5.1%	2.9%
2. I prefer the recreational activities in Maine.	45.6%	34.6%	11.4%	8.4%
3. My spouse or partner wanted to live in Maine.	53.3%	22.3%	9.2%	15.2%
4. I prefer the cultural opportunities and social life in Maine.	37.8%	36.3%	15.5%	10.4%
5. I found a job I wanted in Maine.	39.4%	31.6%	11.7%	17.3%

This is particularly noteworthy because career opportunities, and pay and benefits were very important factors in the decisions of those who chose to live and work outside of Maine. In fact, as shown in **Table 9**, they were the most important factors. Approximately three quarters of the respondents said pay and benefits, jobs, or career opportunities were better outside of Maine. In contrast, only a third of the respondents indicated that being closer to family and friends was important in their decision-making process, and over one-half indicated that living closer to family or friends was “Not At All Important” in their decision. As one graduate said:

“If there was more opportunity for employment and job growth, I would happily move back to Maine. Unfortunately, my husband and I simply do not see Maine as a viable place to get well-paying jobs.”

Another said:

“I fell in love with Maine, but I couldn’t find employment that paid comparable wages to metropolitan areas.”

Table 9

Reasons for Living and Working Outside Maine

<u>Reasons</u>	<u>Very Important</u>	<u>Important</u>	<u>Fairly Important</u>	<u>Not At All Important</u>
1. Career opportunities seem better outside Maine.	57.0%	26.4%	7.0%	9.6%
2. The job I got outside Maine was better than any job I was able to get in Maine.	50.5%	26.3%	10.3%	12.8%
3. The pay/benefits are better in positions outside of Maine.	47.8%	25.8%	12.4%	14.0%
4. My spouse or partner found employment outside of Maine.	48.0%	18.4%	6.4%	27.2%
5. I could not find a job I wanted in Maine.	34.1%	29.7%	11.0%	25.2%

Thus it appears that very different factors play into decisions about whether to live and work in Maine, or in some other state. Those who choose to remain in Maine, or to return after earning a college degree, did so because family or social ties were more important to them than maximizing career opportunities. On the other hand, career and job opportunities are more important for other college graduates. In fact, they are the most important factors influencing decisions for over 55% of the respondents in this study.

Question 3:

How many Maine residents who leave the State to attend college return to Maine to complete their degrees, and to live and work?

The answers to this question may be found in the population sample used in this study. Consider the original sample numbers in **Table 1**, on page 3. While it is well documented that approximately one-half of the graduating high school seniors who attend college choose to do so outside of Maine, the data from this 1998 sample indicates that almost 80% (n=2773+1238) of **those who earned a college degree** in 1998 earned it from a Maine institution. This suggests that a considerable number of high school graduates who may have left the State initially to begin attending college, transferred back to a Maine college or university to complete their degree program. Additionally, of those in the sample who chose to attend college in another state, approximately 53% (n=595) returned to live and work in Maine. This data suggests that the so-called “Brain Drain” may not be as dramatic as generally assumed. However, caution must be used in interpreting these results. Based on the population sample used in this study, the percentage of Maine citizens who actually **earn** a college degree and then decided to remain in

Maine (n=2773) or to return to Maine to live and work (n=595) is substantial; approximately 66%. What is not clear is if this 1998 graduating class is unique, or if it is representative of other graduating classes, and consequently, represents a trend. Also unknown are the reasons why so many Maine residents return to Maine to earn their degrees. Without question, more research is warranted in this critical area.

Question 4:

Are Maine’s best and brightest youths choosing to attend college outside of Maine, and are they choosing to live and work outside of Maine?

Standardized test scores, such as SATs, are often used in describing the best and brightest. When these are unavailable, as was the case in this study, other variables are often used as proxies. For this study, we examined the college, and work and living choices of those respondents who reported they had earned grades of A or B in high school, and whose mothers had earned at least a bachelor’s degree; indicators considered as appropriate proxies for national standardized test scores. In this study, 234 students were identified as having these two characteristics. This represented approximately one-third of the respondents who returned surveys.

The data shows that this group of the best and brightest come from more highly educated families, and families in better financial circumstances. Over two-thirds of these students’ fathers as well as their mothers, had earned a bachelor’s degree or higher. Three-fourths attended private colleges and almost 9 out of 10 received financial help from their parents to help pay for college.

Table 10 reports college and work/living choices of this group of 234 of Maine’s best and brightest. The data in the table indicates that 133 (n=34+ 99) or about 57% of this group, decided to stay in Maine, or return to Maine, to earn their college degree, including 92 respondents in the sample who graduated from Bates, Bowdoin, and Colby colleges. This is encouraging because it suggests many of the best and brightest of Maine’s youth are finding colleges within Maine that meet their needs. However, the picture is less encouraging when it comes to where these graduates choose to live and work. Almost three out of four (72%) of Maine’s best and brightest leave Maine after earning their college degree (n=99), or never return to Maine after earning their degree outside Maine (n=70). And of the 92 graduates of Bates, Bowdoin, and Colby colleges, approximately 87% left Maine after graduation.

Table 10
Choice Patterns of Best and Brightest

Group	Choices			
	<u>Stay/Stay</u>	<u>Stay/Leave</u>	<u>Leave/Return</u>	<u>Leave/Leave</u>
Best and Brightest	34	99	31	70

Why did the best and brightest make these college and work choices? They did so for many of the same reasons other college graduates thought were important in their decisions. Almost 85% of the best and brightest said the most important factor in their decision of where to attend college was the reputation of the college or university. Most choose to live and work outside Maine because of greater perceived career opportunities outside Maine, which were more important to them than social and family considerations. As one of these graduates said:

“My husband and I would love to move back to Maine - we miss it! But we tried to find jobs there when we were living in NYC, and we were unsuccessful. We ended up moving to Seattle instead, the cost of living is much higher here than in Maine, but the career opportunities are much better. If we could, though, we would choose to raise our family in Maine.”

Another remarked:

“I admit that my decision to work outside of Maine is based largely on my perception that there are not many job opportunities for me within the State. I realize that perception may or may not be accurate, but I believed it enough not to look for employment in Maine.”

And a third said:

“If I could find a good career opportunity at a decent salary and benefits I would move back to Maine today.”

Thus, to summarize the answers to the four core research questions in this study, the initial evidence indicates that the reputation, and the quality of college and universities play critical roles in the decisions Maine’s high school graduates make about where to attend college. These are followed closely by financial considerations, and a very personal decision about whether they wanted to stay in Maine to attend college. In terms of living and working choices, the most influential factors in their decisions were different depending upon the value they placed on certain life and personal goals. If familial and social factors were more important than career and pay, most choose to stay in Maine or return after earning their degree in another state. If career and pay were more important to graduates, they were very likely to live and work outside of Maine. These same factors and choices were also true for Maine’s best and brightest youth. Contrary to existing folk wisdom, the so-called “Brain Drain” may not be as dramatic as it is often portrayed. Although it does not necessarily represent a trend, the evidence from the 1998 graduating class used in this study indicated that while a large percentage of our high school graduates may choose initially to attend colleges and universities outside of Maine, many may return to Maine to complete their degrees.

What Can Be Done?

How, then, should we respond to our challenge? How do we increase the number of college graduates who choose to attend college, and live and work in Maine? Before turning to some specific suggestions, consider first what respondents in the sample suggested should be done.

What the Respondents Say Should be Done

When asked *what strategies Maine should pursue to encourage more Maine residents to go to college in Maine*, an observation often made by respondents was, that while they believed Maine had high quality schools, these schools were not adequately advertised and/or marketed.

“I think better marketing of Maine universities (would help). I know a lot of people who go out-of-state to go to college who end up transferring back to Maine. They do not think that Maine has quality universities. They at first think they need to leave to get a good education.”

“I think the schools in Maine need to improve their images and reputations, whether that be through more aggressive promotion of the colleges, getting better faculty, etc.”

“Direct advertising i.e. television/radio emphasizing pros of attending a Maine college (would help). I would really emphasize the financial benefit of attending a state university. Although I feel I got an excellent education, I wish now that I had stayed in Maine, especially when I still have to pay my loan bills!”

Others said that Maine needs to develop more degree programs to fit student needs.

“The colleges and universities need to offer more classes in more majors. I was forced to go outside of the State of Maine because there wasn’t a college that offered what I was looking for in my education.”

“The only thing I can think of would be as diverse a curriculum as possible so residents can pursue their interests at USM and UMO as opposed to somewhere outside of Maine.”

Another common strategy recommended by respondents involved increasing financial support for prospective students in the form of scholarships and grants, especially directed at Maine residents.

“Financial aid needs to be addressed. Middle income families are really trapped in the not poor enough for good financial aid packages, not rich enough to pay for school outright, and are stuck taking out loans to cover the cost of education. Teaching families about financial aid early in the high school career may help; senior year is too late to plan for anything substantial.”

“I know there are some good scholarships for Maine students. I suggest widening programs that offer support to Maine residents at Maine universities/colleges.”

When asked *what strategies Maine should pursue to encourage more Maine residents to live and work in Maine after college*, common responses included increasing job opportunities and wages, reducing the tax burden, and providing financial incentives, including loan forgiveness programs for those individuals who chose to remain in Maine to live and work. Representative comments included:

“Provide jobs that pay competitive wages – the cost of living isn’t too bad, but it’s not that far off from other states – whereas the pay rate is much lower.”

“Perhaps there should be tax breaks, discounts or other perks available for those working and living in Maine. My wife and I earn close to the median income for the State, have excellent credit and almost no debt, yet we can’t afford to buy an average starter home near our employment areas.”

“The taxes are a real downside. I know of several fellow graduates who specifically left the State due to taxes. Most people are shocked when they hear what the tax rates are in the State of Maine, even to register a car. It is unbelievable.”

“The strategies to bring young Mainers back to Maine or to remain in Maine need to come from the State and local levels. On the State level, taxes are out of control, especially small business taxes. It would appear that the State tries to make it as difficult as possible for entrepreneurs to get a small business established. The tax burdens on small business owners are ridiculous.”

“I believe that unless something is done about taxes, Maine will never compete. I personally have thought of leaving the State due to high taxes. Something must be done and soon, otherwise Maine employers will never be able to compete with out of state employers. Especially in the age of information where people can work outside the office.”

“Offer some type of loan forgiveness or tuition reimbursement for students who work for the State for a certain number of years post graduation. There is no reasonable way to pay for a school like Bowdoin working at Maine wages. I was forced to move to Boston for a year to cover Bowdoin expenses. Living in Maine was not even an option initially.”

Other strategies offered by respondents in order to encourage more people to live and work in Maine included expanding the cultural diversity of the State and increasing ties between local colleges/universities and local businesses. Survey respondents said:

“Continue/increase support of the arts to increase quality of cultural events”

“I really wanted to leave after spending 18 years here. It seemed like searching for culture and art had to happen outside of Maine.”

“Internships – I had no idea what was available to me in the Portland area. Of course, I take responsibility for not making an effort to know more. I think a better relationship between the university and the business community in Portland would be extremely beneficial.”

“Programs similar to Northeastern University in which internships are a required aspect of your academic career – assisting in developing opportunities for recent grads.”

Policy Recommendations

Given the findings in this study, and the suggestions of respondents, what policies and programs may contribute toward the creation of a more highly educated workforce in Maine in the 21st century? As mentioned at the onset, Maine needs a major long-range comprehensive plan to address this challenge. What is offered here is a modest list of some strategies that may need to be included in the comprehensive plan.

Clearly an important priority must be to increase the number of Maine residents who choose to attend college, and graduate from *Maine* institutions. Studies have found that once students leave a state to attend college and earn a degree in another state, they are far less likely to return to their resident state to work and live. One study of science and engineering majors in the Southeast found that only about 25% (16) return to their home state of residence after earning a college degree. An analysis of the survey data in this study revealed a similar percentage for science, mathematics, and engineering majors of Maine residents.

The findings suggest a series of strategies may be needed to encourage more Maine residents to remain in Maine to attend college, and more to live and work in Maine after earning a college degree. These include:

- ***More targeted and more sophisticated marketing strategies for Maine higher education.*** An analysis of the program majors in which respondents earned their degrees in revealed striking similarities between the majors of those who remained in Maine, and the majors of those who left Maine to attend college. That is to say, a majority of the respondents earned degrees in similar fields, regardless of where they attended college. Accordingly, it may behoove the State of Maine, and its higher education institutions, to promote more proactively the breadth and quality of programs currently available in Maine. As one respondent put it; “I didn’t realize the quality of programs available in the State.” Individuals like this need better information about programs available right now in Maine’s varied institutions.

- ***Increase the quality of the programs available at Maine institutions of higher education.*** Some respondents indicated they chose to attend college outside Maine because the program they wanted was not available in any Maine institution. Others indicated they left the State because they found a better quality program in some other state. The simple solution would be to increase the number of programs available in-State, while increasing the quality of existing programs as well as new ones. However, the reality is that the State does not have sufficient resources to pursue both strategies with equal vigor. The breadth of programs available for students needs to continue to increase over time, but possibly it is more important now to focus on increasing the quality of selective programs. More resources may need to be focused on creating Centers of Excellence Programs. These programs should be of the highest quality and should have strong resource bases to support them. These Centers of Excellence Programs should build upon existing strengths, and be targeted to economic growth areas for Maine. However, this will require hard choices on the part of policy makers and university officials. It will require investing scarce resources in fewer programs, and it will, in all likelihood, require phasing out programs of lesser quality. The benefits will reach well beyond the targeted program. Increased numbers of students in these Centers of Excellence Programs will increase overall enrollments and resources for related programs, and, ultimately, increase the number of Maine residents who work and live in Maine.
- ***Increase levels of grant financial assistance.*** It is clear that affordability remains a primary concern for Maine students in higher education and that it is necessary for the State to provide sufficient non-loan financial assistance so that Maine schools, both public and private, are competitive, particularly with regional alternatives. As college costs continue to rise and debt burdens from all sources continue to escalate, the availability of need-based grant aid will play an increasingly larger role in determining educational choice and opportunity. Many respondents indicated that their decisions to remain outside of Maine to live and work have been driven, at least in part, by the need for sufficient earning power to repay student loan debt. Maine is already among the highest costs states for both public and private education and, while many students do not pay the posted price, the inability of Maine to offer sufficient grant funding may well continue to contribute to the exodus of Maine students in higher education.
- ***Develop more targeted student loan forgiveness programs.*** Policy makers should also consider targeted student loan forgiveness programs in partnership with private business seeking to bring qualified employees to Maine. Federal tuition tax credit programs also contribute to the ability of middle and lower income families to pay for higher education. Maine may wish to look at targeted tuition tax credit programs for Maine residents going to school in Maine; programs which operate in conjunction with the existing Hope and Lifetime Learning tuition tax credit programs.
- ***Create a true community college system.*** It should be recognized that a truly affordable, fully articulated community college system in Maine could help contribute to the development of a “pipeline” of students who eventually become four-year degree holders and contribute substantially to the State's economy. As the evidence in this study indicates, most of Maine’s two-year graduates remain in Maine. Increasingly, these two-year opportunities through a reasonably priced community college system will not only result in more Maine

residents acquiring the higher education levels now needed for more and more entry level jobs, but provide them a solid foundation for, and accessibility to, four-year programs in the future.

- ***Increased employment opportunities.*** The evidence from this study documents once again the need for more dynamic and sustained economic growth in Maine. Most Maine residents, regardless of where they earn their degrees, want to live and work in Maine. For many, job opportunities and the potential for career advancement outside of Maine are key factors in their decisions. This is nothing new. This is known to be the case, but one example might serve to highlight this problem. It is estimated that by 2010, jobs in computer and mathematical fields will increase by 67% (3). Currently, while Maine ranks 44th in the nation in the number of high-tech workers, New Hampshire ranks 28th and Massachusetts ranks 4th. In terms of average high tech wages, Maine ranks 43rd, while New Hampshire and Massachusetts rank 14th and 3rd, respectively (1). Without a doubt, a comprehensive plan for increasing employment opportunities is needed. This plan should address tax burdens, both for business and individuals. It should address wage structures in Maine, and promote more extensive connections between higher education institutions and businesses. And it should include strategies for expanding the arts and cultural opportunities in Maine.

Summary

In summary, this study has revealed valuable information about Maine's high school graduates who pursue college degrees. The reputation of colleges and programs are very important to high school graduates in their deliberations about where to attend college, either in Maine or outside the State. Even though many choose to attend college in other states initially, many also may transfer back to a Maine higher education institution to finish their degrees. Where our college graduates choose to live and work depends, in large measure, on whether family and social ties are more important to them, or career opportunities. The same may be said of Maine's best and brightest youth. Many leave initially to attend colleges and universities outside Maine because of their reputation, but some return to earn their degree in Maine and/or to live in Maine.

Many strategies could be employed to increase the number of Maine residents who would attend and graduate from Maine's higher education institutions, and choose to live and work in Maine, but these strategies must be part of a long-range comprehensive plan to develop a more highly educated workforce in Maine.

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Appendix A

2002 Higher Education Survey

The 2002 Higher Education Survey examines college enrollment decisions, and post-graduation career and residency decisions of Maine residents who have attended college in Maine. We are asking you as either a Maine resident or former Maine resident to provide your opinions and suggestions by completing the survey that follows. Please refer to your undergraduate college/university when asked questions regarding your college experience.

Directions: Please complete and return this survey within two (2) weeks in the enclosed pre-addressed postage-paid envelope. Your opinions are very important and will not affect your loan(s) in any way. Thank you in advance for your assistance, and please know that all responses are considered confidential.

If you have any questions, please feel free to contact **Ms. Dawn McCarthy** at 207-228-8221 or by email dawnm@usm.maine.edu.

Section I. Educational Experience

1. What college/university did you attend or earn your **undergraduate** degree from? _____
Graduation Date: (month/year) _____ Is this institution: Public _____ Private _____
2. Did you transfer to this college/university from another institution? Yes _____ No _____
If yes, from which college/university did you transfer? _____
3. What was your course of study/major? _____ Your GPA (on a 4.0 scale)? _____
4. Approximately how much financial help with the cost of college did you receive from the following sources?
Circle **one** number for **each** source listed.

	None	1 - 25%	26 – 50%	51 – 75%	76 – 100%
Job (during school and/or summer)	0	1	2	3	4
Parents, other relatives or friends	0	1	2	3	4
Your own savings	0	1	2	3	4
Student loans	0	1	2	3	4
Grants/Scholarships	0	1	2	3	4
Other (please specify) _____ _____	0	1	2	3	4

5. What year did you graduate from high school? _____

6. What grades did you receive in high school?
 _____ Mostly A's _____ Mostly C's
 _____ Mostly B's _____ Mixed Grades

7. Below are some reasons that may have influenced your decision to attend the college/university of your choice. Rate how important **each** reason was to you. Please refer to the college/university you attended for your **undergraduate** program when answering these questions. If you transferred at any point during your undergraduate program, please fill out both columns. Otherwise, only fill out the column titled "Original School". (Circle the appropriate number).

Key: 4 = Very Important 2 = Fairly Unimportant N/A = Not Applicable
 3 = Important 1 = Not at all important

I chose my undergraduate college because:

Reasons	Original School					School Transferred To				
a. of its reputation.	4	3	2	1	N/A	4	3	2	1	N/A
b. of the financial aid package I was offered.	4	3	2	1	N/A	4	3	2	1	N/A
c. it was the alma mater of my parents/relatives.	4	3	2	1	N/A	4	3	2	1	N/A
d. it was affordable.	4	3	2	1	N/A	4	3	2	1	N/A
e. it had a good program in my field.	4	3	2	1	N/A	4	3	2	1	N/A
f. it was the appropriate size I was looking for.	4	3	2	1	N/A	4	3	2	1	N/A
g. a friend or spouse was also attending.	4	3	2	1	N/A	4	3	2	1	N/A
h. it was within commuting distance from home.	4	3	2	1	N/A	4	3	2	1	N/A
i. I had a job in the area.	4	3	2	1	N/A	4	3	2	1	N/A
j. classes were offered at convenient times.	4	3	2	1	N/A	4	3	2	1	N/A
k. I liked the cultural and social life offered by the college/area.	4	3	2	1	N/A	4	3	2	1	N/A
l. I wanted to stay in Maine to attend college.	4	3	2	1	N/A	4	3	2	1	N/A
m. I wanted to participate in the school's athletic program.	4	3	2	1	N/A	4	3	2	1	N/A
n. my parents persuaded me to stay in Maine to attend college.	4	3	2	1	N/A	4	3	2	1	N/A

o. it was recommended to me by a school guidance counselor.	4	3	2	1	N/A	4	3	2	1	N/A
p. it was recommended to me by a teacher.	4	3	2	1	N/A	4	3	2	1	N/A
q. Other (please specify) _____	4	3	2	1	N/A	4	3	2	1	N/A
r. Other (please specify) _____	4	3	2	1	N/A	4	3	2	1	N/A

8. Of those reasons above that you rated most highly, what are the **top three reasons** that influenced your decision to attend the college/university of your choice? (Please list the reasons or the letter of the reason given above.)

First reason: _____

Second reason: _____

Third reason: _____

Section II. Post-Graduation Experiences

1. How would you classify your present employment status?

_____ Attending college or am not currently working

(Answer question #2, then go to Section III.)

_____ Employed **part-time** (30 hours a week or less) (Go to question #3)

_____ Employed full-time in a position **related** to my undergraduate degree

(Go to question #3)

_____ Employed full-time in a position **not related** to my undergraduate degree

(Go to question #3)

_____ Volunteer for a program such as Peace Corps, Americorps, Vista, etc.

(Go to Section III.)

_____ In military services (Go to Section III.)

_____ Other (please specify) _____

2. If you are currently **attending college or are not currently working**, which of the following best describes the main reason?

_____ I am a student at: College _____ Degree Pursuing _____

_____ I have chosen not to work.

_____ I am unable to find employment in the geographical location in which I want to live.

_____ I am unable to find employment in my career field.

_____ I am unable to work due to a disability.

_____ I was recently laid off.

_____ Some other reason. Please explain _____

3a. If you are currently **employed**, which of the following categories best describes the type of organization for which you currently work? (Please check the **one** response that best describes the organization type.)

- | | |
|--|---|
| <input type="checkbox"/> Construction Company | <input type="checkbox"/> K-12 School / Higher Education |
| <input type="checkbox"/> Entertainment Industry | <input type="checkbox"/> Manufacturing Company |
| <input type="checkbox"/> Farming | <input type="checkbox"/> Professional / Business Service Provider |
| <input type="checkbox"/> Finance / Insurance / Real Estate | <input type="checkbox"/> Retailer / Wholesaler |
| <input type="checkbox"/> Government / Public Agency | <input type="checkbox"/> Technology Company |
| <input type="checkbox"/> Health Care Service Provider | <input type="checkbox"/> Temporary Employment Agency |
| <input type="checkbox"/> Hospitality Industry | <input type="checkbox"/> Transportation / Public Utilities Communications |
| <input type="checkbox"/> Other type of Organization (please describe): _____ | |
| <input type="checkbox"/> Self-employed (please describe): _____ | |

3b. What is your job title? _____

3c. Is your job related to an internship you completed in your undergraduate program?

Yes No

If yes, is your present employer the same company through which you had your internship?

Yes No

Section III. Movement in and out of the State of Maine

1. In what states have you lived since you graduated from / or left college? (Please specify dates.)

State _____	From _____	To _____
State _____	From _____	To _____
State _____	From _____	To _____

2. We are interested in finding out more about why you have chosen to leave the State of Maine. Please indicate how important each of the following reasons was in contributing to your decision **to move out of Maine**. (Please circle **one** response for **each** factor listed.)

Key: 4 = Very Important 2 = Fairly Unimportant N/A = Not Applicable
 3 = Important 1 = Not at all important

Employment / Education Reasons

a.	The job I got outside Maine was better than any job I was able to get in Maine.	4	3	2	1	N/A
b.	The pay/benefits are better in positions outside Maine.	4	3	2	1	N/A
c.	Career opportunities seem better outside Maine.	4	3	2	1	N/A
d.	In order to pay back my loans, I needed to find employment outside of Maine.	4	3	2	1	N/A
e.	I could not find a job I wanted in Maine.	4	3	2	1	N/A
f.	I was transferred out of Maine by my employer.	4	3	2	1	N/A

g.	I wanted to work for a specific employer that did not have a Maine facility.	4	3	2	1	N/A
h.	I decided to attend school outside of Maine.	4	3	2	1	N/A
i.	My spouse or partner found employment outside of Maine.	4	3	2	1	N/A
j.	My spouse or partner decided to attend school outside of Maine.	4	3	2	1	N/A
Other Reasons						
k.	I prefer the climate outside of Maine.	4	3	2	1	N/A
l.	I prefer the cultural opportunities and social life outside of Maine.	4	3	2	1	N/A
m.	I prefer the recreational activities outside of Maine.	4	3	2	1	N/A
n.	I prefer the cost of living outside of Maine.	4	3	2	1	N/A
o.	I wanted to live closer to family and/or friends.	4	3	2	1	N/A
p.	When I left Maine, I was returning to a location in which I had lived before.	4	3	2	1	N/A
q.	My spouse or partner wanted to live outside of Maine.	4	3	2	1	N/A
r.	Other reason (Please explain): _____	4	3	2	1	N/A

Of those reasons above that you rated most highly, what are the **top three reasons** that influenced your decision to leave Maine? (Please list the reasons or the letter of the reason given above.)

First reason: _____

Second reason: _____

Third reason: _____

Section IV. Future Plans

1. Where do you see yourself living **five** years from now:

_____ In Maine (Please go to section V.)

_____ Outside of Maine (Please go to question #2)

_____ Don't Know (Please go to question #2)

2a. If you believe that you **will not be** living in Maine five years from now, which of the following reasons best explains why you will not be living in Maine? (Please check **all** that apply.)

_____ I plan to attend graduate or professional school in another state.

_____ I am looking for employment outside of the State of Maine.

_____ I believe that in order to advance in my career I must leave the State of Maine.

_____ I believe that in order to pay off school loans I must find a better paying job outside of Maine.

_____ My partner/spouse plans to obtain employment or education
outside of Maine.

_____ Other (please explain) _____

2b. Do you see yourself living in Maine again at some point during your future career?

_____ Yes _____ No If yes, when? _____

Section V. Demographic Information

1. In which state were you born? _____

2. How many years, **including** time in college, have you lived **in** the State of Maine? _____ Years

3. How many years, **including** time in college, have you lived **outside of** the State of Maine? _____ Years

4. What is the highest level of education your mother completed?

- | | |
|--|---|
| _____ Less than a high school diploma | _____ Master's Degree |
| _____ High school diploma or GED | _____ Doctorate |
| _____ Some college (less than a 4 year degree) | _____ Professional Degree (Law, Medicine,
Dentistry, etc.) |
| _____ Bachelor's Degree | |

5. What is the highest level of education your father completed?

- | | |
|--|---|
| _____ Less than a high school diploma | _____ Master's Degree |
| _____ High school diploma or GED | _____ Doctorate |
| _____ Some college (less than a 4 year degree) | _____ Professional Degree (Law, Medicine,
Dentistry, etc.) |
| _____ Bachelor's Degree | |

We are interested in your ideas on how to encourage more Maine residents to attend Maine colleges and universities, and to live and work in Maine after college.

What strategies would you suggest Maine pursue in the future to encourage more Maine residents to **go to college** in Maine?

What strategies would you suggest Maine pursue in the future to encourage more Maine residents **to live and work** in Maine after college?

Please add any additional comments in the space below:

Thank you for your assistance. Your response will be helpful to Maine policymakers.