

***Recruiting
Trends
2002-2003***

Michigan State University

***Career Services &
Placement***

***Collegiate Employment
Research Institute***

112 Student Services Bldg.

EXECUTIVE SUMMARY

The hemorrhaging in the labor market has been stopped! After experiencing a contraction of nearly 50% of job opportunities over the past 18 months, the economy has appeared to have bottomed out, stemming the loss of more jobs. However, the prognosis is for a long, painful recovery. As Rob Norton of Fortune described the economic outlook, its “uneven, anemic, and jobless”. Uncertainty pervades the entire country – no region is escaping from the grip of the economic slowdown – concerns about global instability, terrorism, and business scandals top the list for this year’s respondents. Monetary and fiscal policies will have little immediate impact as capital is scarce, credit mixed out, and consumer confidence has tanked. However, the need for critical skills is generating some hiring opportunities. For the 376 respondents to our survey, the overall labor market remains gloomy; with occasionally a glimmer of hope that conditions will improve by late spring 2003.

- Escalating health care costs have impacted hiring decisions by diverting monies away from new hiring to benefit support for current employees.
- Thirty-six percent (36%) of respondents have set firm hiring targets for 2002-2003 as opposed to 10% who will not hire anyone this year.
- While those decreasing the number of hires from the previous year exceed those increasing their hires, increasers balance the decreasers in that the overall bachelor’s labor market is expected to remain unchanged from last year; master’s degrees will witness a small decrease (-3%) in opportunities.
 - Employers with definite plans to hire will improve the market by 6%.
 - Employers whose plans are preliminary or are uncertain will reduce their hiring by 14% to 21%.
- Small employers (under 300) have very positive hiring targets for 2002-2003 increasing 4% to 14%. While firms with 301-1600 employees will increase overall hiring by 3%, they will actually reduce bachelor hiring by 4% and masters by 17%. The largest firms will continue to contract, decreasing 9%.
- Economic sectors expecting to increase their hiring include construction (42%), retail (8%), transportation (except airlines) (53%), food & lodging (22%), and health services (1%). Those expected to decrease hiring include wholesale (10%), finance (16%), professional services (14%), and government (7%).
- Engineers and computer scientists will see opportunities shrink around 6%; while business will increase 5%, construction (9%) and liberal arts bachelors (16%).
- For those respondents who reported salaries, they will provide modest increases of 2% to 3%.
- Ethics and integrity are the critical skills/competencies being catered to this year. CEO improprieties are influencing hiring decisions.
- Employers are spending their down recruiting time branding their companies; as a result they expect to visit fewer schools and to attend fewer, more selective job fairs.

CURRENT CLIMATE

Nothing felt worse than presenting last year's findings. Completed shortly after 9/11, the results were just as depressing as the rest of the news. However, there were glimmers of hope – a strong construction sector and a patriotic consumer. With a strong first quarter in 2002, labor pundits predicted that labor markets would begin to recover in late spring to early summer. At the time of these announcements, the Enron situation had just been revealed but the damage was observed to be limited.

Well the first quarter of 2002 was strong, but the unraveling of Enron started a domino effect – bursting bubbles right and left. Eroding value in the stock market, CEO malfeasance caused a dramatic decline in consumer confidence that stalled the recovery. The loss of confidence combined with increased uncertainty turned the economic climate frigid.

The recession of the early 1990's brought on by structural changes had a rising confidence level that caused capital reserves and the economy to explode robustly for the wild ride of the late 1990's. This recession is clouded with uncertainty; languid in its response to stimuli; and jobless. Rob Norton of Fortune said it best, describing the recovery as uneven, anemic, and jobless.

The hemorrhaging has been stopped for the time being. Respondents do not anticipate a further contraction of employment opportunities. Those employers who have made firm commitments to hire outweigh those who expect to decrease employment. The picture is mixed with small employers supporting the labor market and construction, food and lodging, and administrative support services beginning to add labor. Again we find ourselves in a holding pattern waiting to see if the economy picks up steam in the spring. Employers indicated that the labor market should come out of hibernation in March to May. Of course the usual caveat applies: unless there is a major shock to the economy that negates any positive momentum.

EMPLOYER PROFILE

This study captured the 2002-2003 hiring intentions of 376 employers who responded to a mail/web-based survey. The survey was completed by a designated individual in the human resources or college relations department of the organization. The response approached an adjusted return rate of 7%. Complete details on the research strategy and variable definitions can be found in Appendix A.

BASIC PROFILE

These employers were primarily in the manufacturing and professional services sectors of the economy, according to the North American Industrial Classification (NAIC) system that they provided or were listed in *Standard and Poor's Register of Corporations, Directors and Executives*. Fifty-five percent (55%) were women representing units that ranged in size from approximately 10 employees to 380,000 employees. While 28% recruited in the Great Lakes region of the country, 18% recruited across the United States, and 6-8% throughout the rest of the country. These employers were less likely to recruit in the western states, with the exception of California. About 8% recruited internationally.

A variety of recruiting strategies were utilized to find suitable candidates. Approximately 41% used on-campus recruiting, 41% attend job fairs, 33% received resumes referred to them by colleges, 39% utilized their co-op and internship programs, 43% provided web environments for direct applications, and 25% employed Internet/web job listing services. The other strategies commonly employed were advertisements in newspapers and professional journals (30%) and employee referrals.

When it came to their most effective or primary strategies, 22% placed on-campus recruiting, 17% job fairs, 13% co-op/internship programs, and 17% organizational web applications at the top. Other strategies, which made a modest showing, were newspaper ads (11%) and resume referrals (9%).

A complete profile of organizations responding to this survey can be found in Appendix B.

EMPLOYMENT OUTLOOK

The economy has been in a swoon for two years. Devaluation of the stocks, increasing unemployment, and the loss of consumer confidence have contributed to the poor performance of the economy. How companies perceived the factors directing the economy will impact their short term hiring levels. This year a scaled set of items (1 = not likely to 5 = extremely likely) was used to measure the impact of 14 economic issues. Several factors emerged or failed to emerge when compared to previous years.

- **Retirements:** Succession planning continues to be stymied by a workforce that has delayed retiring. Certainly the deterioration in the value of retirement portfolios has changed timelines. However, another factor has emerged for potential retirees – healthcare costs. With companies limiting or even eliminating health coverage programs for retirees, many employers have elected to stay in their positions in order to obtain necessary medical benefits. As a result college graduate career paths are blocked by 55 to 62 year olds, forcing companies to adjust hiring needs.
- **Consumer confidence:** Consumers have kept the economy afloat since the spring of 2001. A patriotic spending splurge following 9/11 propped up the consumer side of the economy. However, the accounting problems of many companies has dashed consumer confidence. Despite a resilient housing market and give-away automobile deals, consumers are not in a position to provide the push needed to stimulate the economy.
- **Skill/competency replacement:** One factor still pushing the hiring of recent graduates is the need for new or sharply enhanced skill sets. Companies are seeking a different type of employee, even while current employees are laid off.
- **Economic growth:** The key is growth stimulation across the economy. Unfortunately, output in the manufacturing has declined for three straight months (August-September-October), which is not a good sign. Forecasters are remaining cautious about holiday spending, hoping consumers are more active than early indications. Both monetary and fiscal policy have done little to stimulate the economy. The major stumbling block appears to be the high level of uncertainty pervading the nation.

Table 1. Factors Influencing the Company's Hiring Goals

Factor	% Extremely Very Likely	% Likely	% Not Somewhat Likely
National economic growth	30	33	37
Skill competency replacement	19	28	53
Consumer confidence	18	26	56
Gov't. spending	17	19	64
Lay offs/reductions	15	9	75
Retirements	13	11	76
Stock market perf.	12	22	66
Restructuring/mergers	11	9	80
Venture capital	8	14	79
Changing consumer perf.	6	13	81
Global competition	5	21	74
Tax reductions	5	11	84
Loan repayments	4	6	90

Further comparisons by key descriptors revealed several significant differences among employers. These differences are depth to our understanding of current economic issues.

- **Size.** Larger employers (above 301 and larger) are more worried about retirements (F=6.46, .001) while smaller employers (less than 300) are more worried about the availability of venture capital.
- **Sector.** A number of differences were found according to the industrial sector. Listed beside the factors are the sectors which rated significantly higher:
 - Retirements (F=5.59, .000) government, transportation
 - Consumer preference (F=2.41, .004) information
 - Global competition (F=2.98, .000) information
 - Stock market performance (F+2.18, .010) finance
 - Economic growth (F=2.54, .002) retail, transportation, finance
 - Consumer confidence (F=2.47, .003) construction, retail, transportation
 - Tax reductions (F=2.44, .004) retail, government
 - Government spending (F=6.19, .000) professional services, government
- **Hiring intentions.** Large employers (greater than 300) are still concerned about continued lay-offs and reductions in staff (F=12.439, .000).
- **Hiring location.** Based on the scope of the companies recruiting efforts, several findings showed.
 - International recruiters more worried about global competition (F=4.85, .03)
 - US recruiters more worried about retirements (F=5.40, .02)
 - Mid-Atlantic recruiters more worried about skill replacement (F=3.69, .05)
 - Great Lake state recruiters more worried about retirements (F=6.34, .012) are restructuring (F=5.79, .01)
 - Upper Plains recruiters more worried about global competition (F=5.16, .02)
- **Gender of respondent:** Women rated the availability of venture capital a bigger problem than men. Important since women usually lead start-ups during recessionary times.

Uncertainty:

Alan Webber, founding editor of Fast Company magazine, is writing in a recent article for USA Today, identified uncertainty as the key culprit in keeping the economy off-track. Uncertainty, especially a lot of it, is an economist’s nightmare. According to Webber, multiple sources existed: business scandals, terrorism threats, global instability, and leadership issues. His remarks were shaped into a rating question where respondents could assign a value of “1” being not serious to “10” being extremely serious.

The averages tended toward the moderately serious range (4-5-6). However, global instability, terrorism, and business scandals produced approximately 25% very serious ratings.

Table 2. Impact of Uncertainty on Business Decisions

Issue	Mean	10-9-8	7-6-5	4-3-2-1
Global Instability-Initiative	5.8	27	47	26
Terrorist Threats	5.3	24	41	35
Business Scandals	5.1	23	37	40
Lack of Leadership Bus/Gov’t	4.8	14	43	33
Ambiguity-Technology	4.6	16	40	44
Shifting Orientation Policy/Pol.	4.3	8	45	47

Comparisons revealed:

- Women tended to be more concerned about global instability and terrorism on economic activity.
- The information sector was more concerned about the ambiguity surrounding the next opportunities for technology (F=2.60, .002).
- Employers with definite hiring plans were less concerned about technology (F=3.812, .01) but were the most concerned about business scandals (F=2.49, .06).
- International recruiters were more concerned about technology (F=3.72, .05) and global instability (F=10.49, .000).
- US recruiters were also more worried about global instability (F=6.09, .01).
- Great Lakes recruiters were the only regional employers showing heightened concern about business scandals (F=3.54, .06) and global instability (F=6.56, .01).

PERCEPTIONS ON THE COLLEGE LABOR MARKET

Respondents were asked to provide their impression of the prospects for new college graduates based on their knowledge of national and industry labor markets, particularly with regards to their industry or service sector. They were asked to rate the markets from which their organization recruited as “excellent” (1) to “poor” (5). Because of a programming error some respondents did not receive all the regional variables. Based on the information available from respondents their information will be summarized only.

OVERALL JOB MARKET

In rating the overall labor market, respondents moved noticeably away from last year's ratings of "very good" to "excellent" toward being "fair" to "good".

- 81% responded to a good to fair labor market as opposed to 4% for "very good" to "excellent." The "fair" rating gained nearly 10% points over last year.
- The reported average rating was 3.83; an additional .3 point shift from last year.



- Overall industry: Job markets fared only slightly better with a 3.58 average which was slightly weaker than last year.
- Regional markets were all rated similarly – between "fair" and "good." No region stood out as either in better shape or worse off than any other region. The gloomy labor market is affecting everyone.

Breaking the ratings out by economic sector shows that the national economy is viewed overall as "fair" to "poor". Utilities and business support sectors appear to be slightly more negative than the other sectors.

When reviewing their own sector, the ratings improve slightly. Clearly, health services is doing "very good". A group clusters around the "good" range, including food & lodging, business support, transportation and retail. The last sector positive outlook is timely, as a solid retail fourth quarter can get 2003 off to a good start.

Table 3. National and Industrial Labor Market Ratings by Industry

	National	Industry
Utilities	4.13	3.88
Construction	3.64	3.50
Manufacturing	3.88	3.86
Wholesale	3.71	3.29
Retail	3.83	2.92
Transportation	3.67	3.00
Information	3.95	3.91
Finance	3.92	3.67
Professional Services	3.91	3.64

	National	Industry
Business Support	4.11	3.00
Health	3.00	1.91
Non Profits	3.50	3.25
Food Lodging	4.00	3.00
Government	3.60	3.38

HIRING INTENTIONS

Realizing that employers may not have formulated their hiring goals because of economic conditions or they have only set preliminary goals that could change during the year, a question was inserted in this year's survey that addressed their hiring strategy at the time the survey was completed. About 10% indicated they would not hire this year while 36% have set firm hiring goals for the year. This last figure is nearly 25 percentage points higher than last year; indicating that the loss of jobs may have ceased or at least been slowed. Still nearly a third are uncertain about their hiring plans and may not know until second quarter 2003.

- 10% will not hire any college graduates this year
- 31% organization's intentions are uncertain at this time
- 23% hiring targets are preliminary at this time
- 36% firm hiring targets set for this year

Hiring intentions are based on a comparison of the number hired last year to the expected number of college hires to be made during the 2002-2003 academic year. In 2001-2002, 305 employers who provided data to this survey hired 10,800 college students at all degree levels. During 2002-2003, those who provided data (305) expect to hire approximately 10,641 college students. Approximately 71 respondents did not reveal their hiring intentions for this year.

Comparison 1. The first step was to compare the difference between hiring targets for 2001-2002 and 2002-2003. For all graduates, 45% employers were reducing the number of graduates hired; 17% were hiring at the same level; and 38% were hiring more students (Table 4).

Table 4. Percentage of Employers Decreasing, Increasing, and Hiring at the Same Level Compared to Last Year (%)

	All Graduates	Associates	Bachelors	Masters	PhD/Prof.
Decreasing Hiring	45	45	43	43	43
Hiring same level	17	27	20	28	32
Increasing Hiring	38	28	37	29	25

When examined by degree level, 55% of employers hiring associate and 57% of employers hiring bachelor graduates will be hiring at or above last year's level. For master's graduates, hiring looks more promising than last year with 57% hiring at the same level or higher. At the Ph.D. level, slightly more than half of the employers will be hiring at the same or higher levels than last year.

Comparison 2. Employers who were uncertain about their hiring goals provided some information on their hiring in 2001-02 but were not able to state this year's quota. In aggregating across all respondents, the uncertain numbers tends to skew the averages for 2001-02. To account for this fact statistically, six tables on hiring intentions have been prepared.

- All responses included in Table 5.
- Only those expecting to hire in 2002-03 in Table 6.
- Those with preliminary plans or are uncertain in Tables 7 and 8.
- Respondents who responded to the 2001-02 survey in Table 9.
- New participants for this year in Table 10.

The information in Table 5 reveals:

- Overall hiring will be down 1% from last year; this figure is not statistically different from zero – or no change from the level hired last year.
- The bachelor's labor market has stabilized with employers hiring at the same level as last year.
- For master's graduates the market continues to shrink, declining 3%; however, PhD and professional degrees (MD's) should experience an improvement.
- Only the associate's degree graduates experience a sharp decline due to the continued slowdown in the manufacturing, which dampens the demand for technical graduates.

Table 5. Hiring Changes Between 2002 and 2003 All Responses

All Responses	n	2001-02		Average	Percent Change
		Average Hired	n	Expected Hires 2002-03	
All graduates	304	35.3	305	34.8	-1
Associates	69	10.9	69	9.5	-13
Bachelors	289	28.9	290	28.8	NC
Masters	130	9.8	130	9.5	-3
PhD/Prof.	44	9.5	44	9.9	+4

The information in Table 6 shows that employers with definite hiring plans are increasing their hires overall and for bachelors' graduates: 6% and 7% respectively. Based on the average comparison all responses are definitely expecting to hire, those hiring are intending to add nearly twice the overall number. The only degree level that will not see an increase is at the associate's level.

Table 6. Hiring Changes Between 2002 and 2003 for Only Those Definitely Expecting to Hire in 2003 Academic Year

All Responses	n	2001-02		Average	Percent Change
		Average Hired	n	Expected Hires 2002-03	
All graduates	121	61.9	121	65.5	+6
Associates	19	22.4	19	17.1	-24
Bachelors	116	50.6	116	54.0	+7
Masters	53	17.8	53	17.7	NC
PhD/Prof.	17	7.6	17	7.5	NC

Tables 7 and 8 show that those who have preliminary plans or are uncertain will be hiring fewer graduates: 22.5 for preliminary and 10.2 for uncertain. If they follow through with hiring plans, they plan to contract opportunities by 14% to 21%. Fortunately, they are manipulating smaller numbers so that the overall impact will not be as great.

Table 7. Hiring Changes Between 2002 and 2003 for Those with Preliminary Plans for 2003

All Responses	n	2001-02		Average Expected Hires 2002-03	Percent Change
		Average Hired	n		
All graduates	81	26.2	81	22.5	-14
Associates	26	5.3	26	5.7	+7
Bachelors	78	22.7	78	19.3	-15
Masters	38	4.5	38	3.6	-20
PhD/Prof.	14	2.3	14	1.8	-21

Table 8. Hiring Changes Between 2002 and 2003 for Those Who Are Uncertain About Hiring for 2003

All Responses	n	2001-02		Average Expected Hires 2002-03	Percent Change
		Average Hired	n		
All graduates	87	13.0	87	10.2	-21
Associates	21	8.8	21	8.6	-2
Bachelors	81	8.9	81	6.6	-37
Masters	39	4.1	39	4.0	-2
PhD/Prof.	13	5.8	13	5.5	-5

Growth in employment opportunities is coming from respondents who did not participate in last year's survey. This group shows an overall increase of 4%; this figure is strongly influenced by the large number being hired at the bachelor's level, which is increasing by 5%. For those who participated last year (96 reported figures), belt tightening continues with declines of approximately 14%; the losses will be particularly felt at the associate and bachelor levels. In both groups the master's level opportunities will shrink by 3%.

Table 9. Hiring Changes for Those Who Responded in 2001-2002

All Responses	n	2001-2002		Average Expected Hires 2002-03	Percent Change
		Average Hired	N		
All graduates	96	32.8	96	28.1	-14
Associates	20	17.3	20	14.5	-16
Bachelors	90	27.6	91	24.2	-12
Masters	38	6.2	38	6.0	-3
PhD/Prof.	16	5.8	16	5.1	-12

Table 10. Hiring Changes for Those Who Did Not Participate Last Year

All Responses	n	2001-02		Average Expected		Percent Change
		Average Hired	n	Hires	2002-03	
All graduates	209	36.6	209	38.0		+4
Associates	49	8.3	49	7.5		-10
Bachelors	200	29.6	201	31.0		+5
Masters	93	11.2	93	10.8		-3
PhD/Prof.	28	5.1	28	5.1		NC

SIZE OF HIRING UNIT

Examination of hiring by company size revealed that small employers were stabilizing the labor market.

- Small companies (under 300) reported that they will increase the number of hires at the bachelor's level by 12% to 17% while larger companies will be reducing jobs by 5%.
- Master's hiring, with the exception of the smallest firms, is down across all categories.

**Table 11. Change in Hiring Expectations Between 2001-02 and 2002-03
Based on Size of Organizational Unit Respondent Recruiting For (%)**

	<60	61-300	301-1600	>1601
All Graduates	+4	+14	+3	-9
Associates	-32	+9	+1	-23
Bachelors	+12	+17	-4	-5
Masters	+25	-5	-17	-3
PhD/Professional	+4	-40	+7	-9

INDUSTRIAL SECTOR

- Construction, transportation (not airlines), retail and food and lodging sectors show positive hiring patterns for the year, especially at the bachelor's level.
- Health, information and manufacturing will only change modestly from last. The 3% decline in the manufacturing sector is a dramatic improvement from the 50% decline experience last year.
- Professional services will experience a 14% decline (12% at the bachelor's level). This sector has contracted by more than 50% over the past two years.

**Table 12. Change in Hiring Expectations Between 2001-02 and 2002-03
Based on Economic Sector (% change)**

	n	All Graduates	Associates	Bachelors	Masters	PhD/ Professional
Utilities	9	+79	NC	+100	NC	-
Construction	13	+42	NC	+43	NC	-
Manufacturing	114	- 3	- 2	- 1	+10	+ 23
Wholesale	7	-10	-17	-10	- 11	-
Retail	10	+ 8	-	+ 8	-14	-
Transportation	3	+53	-	+61	+47	-100
Information	23	+ 2	+ 2	+ 3	--	- 33
Finance	22	-16	-17	-14	- 51	-100
Prof. Services	75	-14	-21	-12	- 12	- 13
Lodging & Food Serv.	20	+22	- 8	+24	+ 17	-
Government	16	- 7	- 8	- 8	+ 19	+3
Admin Support	9	+75	+50	+30	+100	-
Non Profit	6	-33	-60	-26	-100	-
Health Services	10	+ 1	+128	NC	- 7	-

ACADEMIC MAJOR

- Business majors will experience a turnaround this year (up 5%), while engineers and computer science majors will continue to experience contractions of around 7%.
- Liberal arts and science opportunities will increase as the companies seeking them plan to expand hiring.
- Construction majors (BS) will continue to see job opportunities.

**Table 13. Change in Hiring Expectations Between 2001-02 and 2002-03
Based on Academic Majors (%)**

	Bus.	Eng.	Comp. Sci.	Liberal Arts	Comm.	Ag./ Const.	Sciences	Allied Health
All Graduates	+5	-9	-11	-5	-5	-44	+12	-2
Associates	-10	-31	-14	-8	+7	-71	-	+14
Bachelors	+6	-7	-6	+16	-3	+9	+12	-3
Masters	+6	-13	-17	-32	-61	-84	-	+71
PhD/Profess.	-10	-11	-30	NC	-83	-	-	+13

A FINAL LOOK AT HIRING – WHEN WILL IT OCCUR!

Norton is right! The economy is moving unevenly, growing anemically, and producing few jobs. Our information revealed that the dramatic cuts in job opportunities experienced over the past 18 months has stabilized. Employers are attempting to hold steady as they wait for the economy to improve. Several sectors will move ahead and hire; others will continue to contract. Some majors will enjoy more opportunities than last year – the challenge will be to connect with the employers who have jobs. Other majors will have to work harder to secure a job.

Just when do employers expect the economy to heat up enough to begin hiring. To determine when in the business cycle companies expect to hire, a question solicited the indication as to possible economic quarters over the next year. The hope is to see the economy turnaround early next year, with hiring improving by spring. Yet, there is always a caveat --- unless an event puts the breaks on the economy.

Business Quarter	% expecting to hire
Third quarter 2002	9
Fourth quarter 2002	15
First quarter 2003	40
Second quarter 2003	59
Third quarter 2003	38
Fourth quarter 2003	17

Those companies with firm hiring goals expect to begin hiring during the fourth quarter 2002 through spring; those with preliminary targets expect to hire during the first and second quarters of 2003; and those who are uncertain clearly do not intend to hire until second quarter (73%) and into third quarter 2003.

Retail and professional services expected to begin hiring during the fourth quarter, this may or may not materialize; finance and insurance companies indicated that they would begin hiring during the first of the year; manufacturing, along with the other economic sectors, reported the majority of their hiring would begin in the second quarter; and, finally, the information services sector expect hiring to begin in the second quarter but carry strongly through the third quarter.

Economic Recovery and Hiring: A word of caution in terms of anticipating when hiring might begin. Once the economy begins to recover and the indicators signal upward movement, hiring will not begin immediately. First, companies will need to begin utilizing more of their capacity with their current workforce before new hires are brought into the company. Further complicating the picture is the backlog of labor waiting to find a position. Many members of the class of 2001 and 2002 are still (will be) seeking a position, or trying to improve their situation; combine them with a large pool of educated workers who have been laid off over the past several months. The class of 2003 will enter this mix and will find the market congested. It is going to take time for the labor market to accommodate all those seeking employment.

Retirements: While retirements for many workers has been delayed, demographics still favor recent college graduates and this year's class. This year's recession is simply a bump (unfortunate for those who hit the bump) in the road for a labor market that will encounter strain as it attempts to supply new employees for those leaving.

Knowledge Gap. During the restructuring experienced during and after the early 1990's recession, companies eliminated entire segments of their workforce and did not hire replacement. Several years later they experienced major and frustrating knowledge gaps within the organization. To avoid this problem, companies will be hiring some new staff so that key positions will be filled with institutionally savvy individuals when the economy heats up again.

Words of advice: Company representatives last year provided helpful advice to seniors that is worth repeating.

- Research. Take time to research the companies with whom the student would like to work. Researching smaller companies may be more difficult. Companies are placing a premium on “organizational fit” – particularly when they can be more select in the hiring process. By identifying companies that offer the entry-level experiences and environment a student desires can help focus the search.
- Experiences. Continue to gain life experiences through internships, volunteering, and related activities. Even if a student cannot immediately connect to a job at graduation, these activities provide valuable connections toward a position when the market opens up. In other words, do not drop out.
- Personal reflection. Graduates need to take time on what they really want to do; find their interests and passions. Set goals around these passions.
- Attitude. The labor market may change quickly; yet will remain very competitive. Graduating seniors need to have an open-mind on the opportunities in the labor market; be flexible when it comes to considering offers; and above all patient.
- Strategy. First set realistic expectations (particularly with regards to salary) and be prepared for the job search (start early, prepare for interviews, and know how one stands out from others).

SALARY EXPECTATIONS

Respondents were asked to provide the starting salary ranges offered in 2001-02 and expected in 2002-03 for the five key majors for which they recruit. They were further asked to provide salary ranges by degree level (associates, bachelors, masters, and Ph.D.). Tables have been prepared for associate, bachelor, and advanced degrees. Specific majors are included where the number of reported salaries was sufficient to provide stable statistics. Where the observations (n's) are small, caution must be taken in interpreting the salary range. The percentage increase column reflects the midpoint between the shift in the low end of the range and the high end of the range.

Before salary information is discussed, two groups need to be identified. The first group (the smallest) reported salaries for this year. A larger group hesitated to reveal salaries because (1) the uncertain economic conditions made it difficult to peg appropriate levels and (2) internal realignment of salaries was being undertaken to account for the excesses of the past 5 years. Salary levels eroded last year as a review of the appendix of this report with last year's will show. While employers who reported salaries expect an increase, the final situation may look different when other companies set their salary offers.

General findings, based on the employer's salary information:

- Respondents indicated that salary figures were estimates (if provided at all) as the slow economy could further erode salary levels. A glimpse of what transpired last year can be found in Appendix C-2. This table shows that several key sectors ended the year offering salaries well below expectations.
- Bonuses and other signing incentives will not be offered this year.

- Salary adjustments overall will reflect only a small increase over last year, approximately 2% to 4%.
- Overall: Associates' salaries can be expected to increase by 14%.
 - Bachelors' salaries can be expected to increase by 2%.
 - Masters' salaries can be expected to decrease by -1%, or stay the same.
 - PhD salaries are expected to increase by 6%.
- By type of degree earned at the bachelors' level:
 - Business will increase by 4% (range -8% to +9%).
 - Engineering will increase by 5%.
 - Computer Science will increase by 10%.
 - Social Science will increase by 3%.
 - Sciences will increase by 2%.
 - Liberal arts will see a 4% decline.
- By type of degree earned at the master's level:
 - Business will increase 5% (range -6% to +17%).
 - Engineering will decrease by 3%.
 - Computer Science increases from 5% to 10%.
 - Social Science/Humanities will increase by 1%.
 - Sciences will decrease by 5%.
- From Table 18, starting salaries by industry sector show:
 - Highest salaries in professional services and manufacturing
 - Highest salary increases at the bachelor's level will be in the construction (3%), food and lodging (3%), and professional services (3%) sectors.

**Table 14. Associates Degree
2002-03 Expected Starting Salary Range Compared to 2001-02 Salary Range (\$)**

Seeking	n	Starting Salary Range 2001-02 (\$)	n	Starting Salary Range 2002-03 (\$)	% Change
Any AA Major	4	23,800-27,400	4	23,500-26,000	-5
Any Liberal Arts Major	4	29,750-32,500	4	30,500-34,500	+6
Business					
Any business major	11	26,400-32,450	8	28,900-34,700	+7
Business administration	7	25,600-29,300	5	25,400-29,600	+1
Marketing	7	24,600-29,300	7	24,600-29,300	NC
Hospitality	9	27,700-30,600	5	31,800-34,000	+11
All reported business	39	26,200-30,200	30	27,400-31,300	+4
Engineering					
Electrical	7	30,700-35,300	3	33,000-35,000	NC
Mechanical	7	32,300-34,300	3	33,000-35,000	+2
All reported engineering	25	31,200-34,000	15	31,500-33,900	-1
Computer					
Computer science	5	29,200-32,000	5	29,000-31,800	-1
All reported computer	11	30,400-33,300	8	29,000-32,100	-4
Nursing	6	32,200-38,300	5	33,600-39,800	+4
All reported salaries	116	28,000-31,500	78	32,000-35,900	+14

**Table 15. Bachelor's Degree
2002-03 Expected Starting Salary Range Compared to 2001-02 Salary Range (\$)**

Seeking	Starting Salary Range		Expected Starting Salary Range		% Change
	n	2001-02 (\$)	n	2002-03 (\$)	
Any BA/Bs Degree	13	30,600-34,700	8	31,600-35,500	+2
Business					
Any business degree	36	32,700-37,400	19	34,700-39,800	+6
Accounting	33	35,400-37,900	18	37,500-39,200	+3
Business administration	28	33,300-37,600	15	35,900-41,000	+9
Finance	29	36,000-38,700	13	39,800-41,500	+7
Logistics/SCM	15	37,500-37,500	9	37,900-39,500	+5
Marketing	28	35,800-38,400	21	35,500-38,900	+1
Hospitality	13	34,800-38,400	9	32,800-35,300	-8
All reported	197	35,000-38,200	111	36,600-39,900	+4
Communication Arts					
Communication	10	29,200-31,900	6	29,500-31,200	-2
All reported	18	29,600-32,400	9	29,700-32,100	-1
Social Work	5	34,400-37,000	3	31,300-37,000	NC
Engineering					
Any Engineering degree	8	35,000-40,400	7	39,300-45,100	+11
Chemical	21	43,300-46,000	11	46,500-48,700	+6
Civil	26	36,800-41,800	10	39,100-41,400	-1
Computer	23	50,100-58,500	10	51,400-55,000	-6
Electrical	56	44,900-49,200	34	47,700-52,100	+6
Industrial	13	39,800-44,400	8	41,700-46,900	+6
Engineering (general)	10	41,900-47,000	5	44,000-49,600	+5
Mechanical	55	42,900-47,200	24	45,100-50,600	+6
All reported	250	42,500-47,100	123	45,200-49,500	+5
Social Sciences (all)	10	29,000-31,900	8	29,400-33,000	+3
Computer Sciences					
Computer science	36	45,800-48,600	19	49,100-53,100	+9
Programming	14	42,000-44,300	6	42,300-45,000	+2
Informational science	10	41,400-46,900	6	40,700-48,200	+6
MIS	15	41,600-44,300	8	48,000-51,400	+16
Sciences					
Mathematics	10	45,700-49,900	6	44,000-48,300	-3
All reported	30	39,200-43,800	16	40,700-44,600	+2
Construction	4	42,000-43,700		NA	---
Health					
Nursing	7	35,300-44,600	5	37,600-45,600	+2
All reported	19	39,000-44,800	13	40,800-46,000	+3
Liberal Arts – all	11	34,300-38,400	9	33,500-37,000	-4
All Reported salaries	642	36,800-40,200	347	38,300-42,400	+5

**Table 16. Master's Degrees
2002-03 Expected Starting Salary Range Compared to 2001-02 Salary Range (\$)**

Seeking	n	Starting Salary Range 2001-02 (\$)	n	Starting Salary Range 2002-03 (\$)	% Change
Any MA/MS Degree	4	48,700-57,500	3	45,000-53,300	-4
Technical – any major	3	48,700-57,000	2	43,000-55,000	-3
Business					
Any major	14	46,900-58,300	8	55,700-66,900	+13
Business administration	9	50,000-58,900	4	61,500-70,200	+17
Finance	10	49,000-57,400	7	44,000-53,100	-6
Marketing	7	53,100-59,100	6	51,500-56,200	-5
All reported	62	47,100-54,700	28	50,200-58,000	+5
Social Work	5	34,000-43,400	4	36,000-45,700	+5
Engineering					
Chemical	4	54,500-61,700	4	51,000-57,200	-7
Civil	7	49,000-52,700	3	46,000-47,700	-9
Computer	14	60,100-64,700	8	63,400-66,700	+3
Electrical	24	55,800-61,000	11	51,300-57,500	-6
Engineering general	4	48,700-56,700	4	49,000-57,000	+1
Mechanical	14	52,500-58,000	6	55,000-57,700	*
All reported	79	53,700-59,900	45	52,600-58,200	-3
Computer Science					
Computer science	22	53,900-58,900	7	57,700-64,000	+8
Programming	5	53,800-60,200	4	59,700-66,700	+10
Information science	5	48,400-58,000	3	49,300-61,300	+6
MIS	7	48,400-50,600	5	50,600-53,200	+5
Nursing	5	47,600-56,400	3	49,000-58,700	+4
Mathematics	6	51,300-59,500	4	51,000-62,000	+4
All sciences	17	48,700-54,100	11	48,300-51,400	-5
All social sciences	8	28,700-34,700	6	27,500-35,200	+1
All reported salaries	241	49,200-55,900	133	49,700-55,600	-1

**Table 17. PhD Degrees
2002-03 Expected Starting Salary Range Compared to 2001-02 Salary Range (\$)**

Seeking	n	Starting Salary Range 2001-02 (\$)	n	Starting Salary Range 2002-03 (\$)	% Increase
Business All Majors	11	52,200-62,000		None reported	--
Engineering					
Computer	6	87,000-91,300	4	75,200-80,500	-11
Electrical	11	72,800-78,600	9	72,800-79,300	+1
Mechanical	8	72,400-73,600	7	73,000-83,300	+12
All reported	35	72,400-77,100	26	72,400-80,600	+4
Computer Science (all)	10	68,900-71,400	8	65,000-67,700	-6
Sciences (all)	15	61,700-61,900	8	70,500-71,000	+16
All Reported Salaries	92	64,000-68,400	57	67,000-72,300	+6

Table 18. Expected Starting Salary Range for Industrial Classification

Seeking	n	Starting Salary Range 2001-02 (\$)	n	Expected Starting Salary Range 2002-03 (\$)	% Increase
Construction					
BA	20	37,900-39,900	5	46,000	+15
Manufacturing					
AA	22	29,500-35,400	11	29,800-33,200	-5
BA	271	41,800-45,600	119	45,000-49,500	+6
MA	72	55,100-60,100	34	58,400-65,400	+7
PhD	35	69,700-75,500	21	75,400-85,100	+12
Wholesale Trade					
BA	15	35,000-37,500	8	34,600-38,600	+3
Retail Trade					
BA	33	36,200-37,700	19	40,600-42,600	+13
MA	4	58,700-63,000	2	59,000-64,000	+3
Transportation					
BA	5	39,400-42,600	4	38,400-42,400	NC
MA	6	48,800-53,000	8	50,700	-4
Information					
BA	33	41,500-45,700	14	43,100-47,200	+3
MA	14	54,200-64,400	8	55,200-63,600	-1
PhD	3	64,700-69,300	5	68,800-72,800	+4
Finance/Insurance					
AA	7	22,700-25,400	7	23,000-25,700	+3
BA	54	34,000-36,800	23	35,100-39,900	+8
MA	17	40,500-48,500	9	39,600-48,000	-1
Professional Services					
AA	40	29,100-32,000	32	30,600-34,000	+6
BA	193	38,300-41,800	92	40,800-44,400	+6
MA	86	47,174-52,800	48	49,200-55,800	+6
PhD	36	63,800-65,000	17	64,600-65,600	+1
Health					
AA	9	27,000-31,000	6	30,700-32,200	+4
BA	22	31,800-36,800	10	30,500-34,800	-5
MA	17	41,200-52,300	12	42,700-50,700	-3
PhD	3	65,700-77,300	2	68,500-71,000	*
Food and Lodging					
AA	17	25,500-29,900	11	27,200-32,000	+7
BA	34	33,000-37,100	27	31,700-35,200	-5
Non-Profits					
AA	8	26,500-26,900	8	27,500-28,100	+4
BA	10	31,700-34,100	4	25,000-27,500	-20
Utilities					
BA	16	38,000-42,900	7	37,400-40,700	-5
Government					
AA	11	28,200-32,600	8	28,500-33,000	+1
BA	45	35,000-41,000	20	40,700-44,100	+7
MA	19	43,600-52,600	11	47,800-55,800	+6
PhD	16	52,500-62,400	11	61,700-64,700	+4

*Bottom of range moving up faster than the top of the range

RECRUITING ISSUES

Sustaining The Hiring Process

This year's respondents utilize a different mix of recruiting strategies than in past years. Their reaction to the uncertain economy in terms of hiring timelines may differ from 2001-2002 when employers maintained their visibility on college campuses and nurtured relationships with their campus contacts. This year it appears that a group of employers are simply waiting or being forced to remain on the sidelines. They remarked that normal hiring practices would resume once the executive office indicates that hiring can resume. For another group, their responses indicated more activity to market their companies to students, maintain relationships and act strategically.

- **Strategy:** Develop in-house talent; utilize temporary employees; train managers for future recruiting; devise a faster, seamless recruiting program.
- **Potential Candidates:** Identify potential candidates by soliciting resumes; attending fairs; participating in campus activities (e.g. mock interviews); enhance co-op/internship program; continue recruiting on-campus.
- **Branding:** Better position the company toward students through advertising and more effective use of web resources.
- **Relationships:** Build relationships with faculty and other key college/university personnel, including career services; expand opportunities for students to visit companies, such as informational visits.
- **Research:** Evaluate locations that produce the talented students the company will need; undertake market surveys to determine best methods to attract attention of qualified candidates.

In addition to dealing with a jobless economy, employers have had to adapt to a dynamic economy and e-recruiting techniques. These factors have also influenced major changes in recruiting practices. Topics of current interest deal with selective targeting of institutions and involvement in career fairs.

- **Selectivity:** Within the past five years, 33% of the respondents have targeted fewer colleges/universities while 20% have increased the number of institutions and 47% have held the number relatively constant. On average employers visit or are closely involved with 12 institutions each year. However, the range is 1 to 500 institutions. Using a five point scale with "1" being very selective to "5" being very broad, 39% placed themselves at this very selective end and 37% at the "2" position. As the following table indicates what is selective to some companies (visiting 1 or 2 schools) may mean something different to other companies.

SELECTIVITY

Selectivity	n	Average number schools visited	Range	Comparison
1 (very)	125	5.9	1-75	38% fewer / 17% more
2	114	10.5	1-90	39% fewer / 14% more
3	36	17.2	1-110	16% fewer / 29% more
4	18	33.4	5-200	7% fewer / 41% more
5 (not at all)	7	84.6	3-500	25% fewer / 33% more

Fairs. A common perception around the country is that the number of career/employment fairs has been increasing at an “exponential rate” (in other words, quite rapidly), which has strained employers’ resources to attend all the requests made of them. From the comments, some employers may be stimulating this level of fair activity by attending focused, specialty fairs. On the other side, some employers are tired of all the requests, which has resulted in attendance at fewer fairs. Approximately 46% of those responded indicated that they attend fewer fairs than five years ago, while 21% are attending more fairs. The average number of fairs attended is 6, but the range is from 0 to 180 (actually 71 employers do not attend any fairs).

CAREER FAIR ATTENDANCE

	Average Fairs	Range
Attend fewer fairs	5	0 - 95
Attend same number of fairs	9	0-180
Attend more fairs	18	1-160

For 30% of fair attendees, the number of invitations to specialized career fairs has increased. Often times the requests are simply ignored or visits are limited to one per college. To avoid appearing rude, companies have developed a set of criteria to evaluate fair requests:

1. Candidates: will the visit yield candidates relevant to the needs of the organization, based on past experience on the campus, attendance at career fairs (want it to be high).
2. Timing: time of year, number of days, and availability of staff.
3. Type: is it inclusive (open to all majors) or is it selective (major, special groups) – varies depending on company.
4. Climate: is campus employer friendly (demanding, overwhelmed by requests).

Foreign Professionals: During the rapid paced, highly technical environment of the 1990’s, many employers came to rely on foreign professionals to meet their employment needs. With the events of 9/11 and subsequent security measures, the climate for attracting foreign working employees has changed. Nevertheless, 21% of the respondents indicated that they still needed foreign trained individuals, particularly in these fields:

- Nursing
- Accounting
- Engineering (especially at PhD level)
- Sciences (especially at PhD level)
- Computer Science / IT / Technology

Nearly 92% of those who would like to bring foreign workers to the U.S. encountered long delays in obtaining background checks and visas. Some respondents contributed this to inefficiencies within the IRS; but the major problem was the rising costs incurred in finding qualified labor.

Foreign Students: Many foreign students eagerly seek a one-year work experience upon completion of their degree. For many, finding employment is a futile exercise because only a small number of employers wish to sponsor foreign students. One-third of this sample expressed an interest in employing a foreign student. However, the problems they cited often outweigh the merits.

- **Economy:** With a poor economy employers either morally or by policy wish to hire U.S. students first.
- **Process:** Can not justify a hire of only 12 months; can not learn the job in that amount of time.
- **Costs:** With the imposed time limits, training costs are not recovered; insurance expenses have become extremely high.
- **Language:** Ability to perform tasks with English only instruction.

Expect it to become increasingly difficult for foreign students to find 12-month assignments. Employers are having a hard time justifying the costs and hassles in supporting these positions.

Temporary positions: To mitigate the collapse of the labor market and to provide valuable experience for new graduates, career specialists, as well as human resource managers, have advocated the use of short-term, temporary assignments. A justification for this approach is that companies have the opportunity to “try out” a candidate before making a long-term commitment. Nearly 50% of the respondents are considering or have implemented such assignments. For the majority, they merely are considering the option. For those who have tried temporary assignment, two adamant groups emerged through analysis of their comments: lovers and haters.

Those respondents who have embraced the practice have expanded their summer internship programs to accommodate the shift. They report that they learn a lot about a potential candidate and that transition into a full-time is eased.

Detractors cite cost problems, particularly training, in relation to the short-term nature of the assignments. In fact, the difficulty may be the lack of students in short-term temporary positions. Even if students can be found, their motivations are questioned, especially when the student elects not to stay with the organization upon completion of the assignment.

Expect the use of temporary assignments to continue but be rolled into the more user-friendly “internship” category, which removes negative implications and is consistent with student expectations.

GRADUATING SENIOR ISSUES

Am I qualified? No big surprise this year, unless the intense interest in ethics, morality and integrity mean anything. Recruiters are keen on girding-up the moral fiber of their organizations. In today's climate, the comment made by a few respondents that "new employees need to do whatever is necessary to improve the companies bottom line." That mentality has obviously gotten some folks into a lot of trouble. The problem with ethics is that it cannot be taught; they are learned and practiced. Illustrations can be used to help students fix boundaries (limits), which they would not cross. Institutions of higher learning have to also raise the bar in practice --setting ethical boundaries and be willing to penalize those who cross the line.

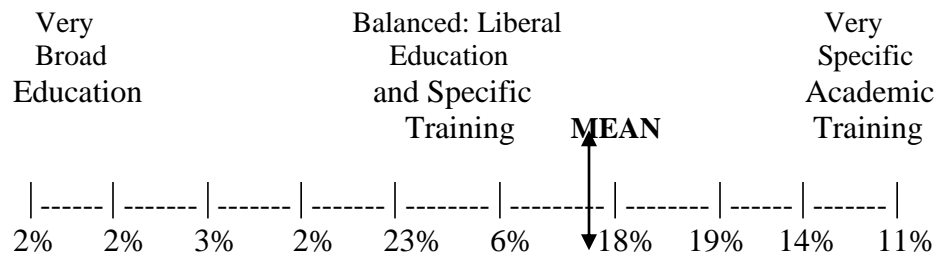
Little has changed in our discussion of necessary skill/competency sets required to be successful. In fact, employers now expect more than a basic knowledge in a discipline; they expect new graduates to have the necessary emotional people skills developed to contribute immediately to the organization. The list of skills and competencies, labeled "the total package," can be found in the appendix. This year is might be helpful to hear directly from the respondents.

Consider these thoughts:

- "Ability to work in team environment, clearly express their thoughts (verbal and written); ability to multitask; ability to enter a position and make a contribution to the effort in a short amount of time."
- "Will need to possess a combination of disciplines in the area of study, analytical skills, ability to work in a team environment, as well as on their own; an eagerness to learn continually."
- "Communication, problem solving, ethics, multitask-oriented, strong presence and a higher GPA in their major."
- "Intangible skills are most important such as teamwork, organizational, creativity, critical thinking. Most students have basics, we are looking for more."
- "Mission of service – they must be driven by a desire to serve people. They can not be driven by ego."
- "They need to be writers and thinkers; flexible and open to change; have ability to solve problems and think analytically."
- "Well spoken, people oriented, team player, disciplined, positive upbeat attitudes, detailed, computer literate, hard working, goal oriented."

Liberal Arts – What About Me? For the past several years employers have been asked to value the liberally educated candidate, one who has received an education that emphasizes writing, mathematics, foreign language, computer literacy, and international culture while gaining depth in a specific discipline, compared to a graduate from a focused, specifically trained program (such as engineering). Over the past several years, the barometer's indicator has moved from the specifically trained to a graduate with a balanced liberal-specific academic program. This year the meter remains pointed at just below 7 (actually 6.9) on the scale. Even with a broader sample, the move toward the middle (obviously a researcher bias) has slowed.

Sector of the economy, gender of the respondent, or size of the organization noted no differences. Referring back to the previous sector, employers are seeking candidates well trained in their discipline (craft) as well as embracing the elements of a liberal education.



Do they even know who I am? Our society loves to label groups and young adults are no exception. The age group led by 19-24 year olds is at the cusp of a new generational cohort. This group will eventually be defined by the events of 9/11 and the subsequent events that result. While it is too early to say definitely what this group is about, researchers, such as Neil Howe and William Strauss, offer potential insights into this group. Using a word sort that contains descriptors of the three cohorts presently contending for positions in the labor market, respondents were asked to select those that pertain to the 19-24 age group.

BOOMER	XERS	MILLENNIALS
Self-absorbed (6)	Confrontational (2)	Diverse (15)
Individualistic (19)	Assertive (27)	Fragmented (8)
Idealistic (10)	Resilient (2)	Civic-spirited (32)
Creative (14)	Alienated (3)	•Well-educated (9)
Liberated (38)	Risk-taking (33)	•Conventional (13)
	Pessimists (15)	Directionless (8)
	Lazy (48)	•Team-oriented (51)
	Untrusting (31)	Ambitious (30)
	Experimental (6)	Motivated (47)
	Scattered (11)	•Confident (45)
	Hypocritical (29)	•Pressured (10)
	Materialistic	Optimistic (28)
	Impatient (37)	Trustful (26)
	Argumentative (48)	Compliant (7)

•Represents top 5 millennial characteristics.

The numbers in parentheses are the percent of respondents who selected this descriptor. Several clusters appear:

- Primary: Team-oriented, argumentative, lazy and motivated
- Secondary: Impatient, liberated, risk-taking, civic-spirited, untrusting and ambitious
- Tertiary: Optimistic, hypocritical, assertive and trustful

With one exception, the Boomer descriptors do not fit today's youth. The liberated trait draws its strength from women respondents who checked it significantly more often than men.

The remaining picture captures the overlap between generational groups. As the leaders pass through toward their 30's, the middle segment will take on stronger millennial traits. Millennials will separate themselves from Xers and develop into the opposites of Boomers. However, imbedded in the persona will be traits modified from earlier cohorts. This means that conventional includes tattoos and piercings; that ambitious will include impatience; and that compliant will suffer through experimentation.

The bottom line is that we do not know these youth very well; the media and marketing firms present a very different picture. Employers and career advisors may find it rewarding to actually spend some quality time with them; may learn more about "Trading Places" than you could imagine.

Does Study Abroad Enhance My Career? Maybe. Simply listing an academic experience abroad on one's resume does little to attract an employer's attention. Repeated surveys at CERI have shown this to be true. With the focus on skills/competencies, a question was asked that asked participants to select traits where those who have international study or internship may cause an individual to stand out.

Two characteristics stood out; resourcefulness (31%) and adaptability (25%), as the most frequently selected. This group was followed by setting priorities (19%), independence (18%), contextual thinking (18%), dependability (17%), and cultural awareness (17%). A study abroad experience has the potential to separate a candidate or new employee from his or her peers, but the person must be able to make the connection between the experience and these skills/competencies.

Skills that received little attention included learning independently, creativity, interpersonal communications, and working well with others. These competencies can emerge from a variety of experiences or habits that may well precede or be inherent in one's personality.

The point of this exercise was not to establish a causal relationship between study abroad and employment. Rather, it served to help focus a better understanding of international experiences. With this insight better research can be developed.

REALISTIC EXPECTATIONS

In the final question, employers were asked to clarify their major complaint about college seniors that "they do not have realistic expectations." What are "realistic expectations?" Once we got past the cliché, "pay your dues," which John Cowan in Small Decencies believes is the worst pain and suffering placed on a new hire (kills passion, enthusiasm, etc.), several key factors emerged.

- Entitlement. By completing a degree some graduates believe that a good job and high pay is their reward; work is still a meritocracy – you earn it!
- Instant gratification. Want instant rewards for their efforts; do not connect work → achievement → reward.
- Orientation. One respondent summed this disconnect up as follows: "The differing expectations between employers and employees – employees nearly always look at what they will get from a job whereas employers look at the employee's skills, talents, and what they will add to the organization."

- Theory vs. practice. “Many students are taught by faculty that they will be doing much more than what applies. They must be taught that they now have the tools but they need to know how to use them”.

What employers would like students to understand before coming to interviews:

1. What “entry level” position means.
2. Information on average salaries – not the mega salary they heard about.
3. Work is work – 40 hours a week (plus) of it.
4. Learning to develop expertise in one’s craft.
5. Career path progression.

APPENDIX A RESEARCH METHODS

A list of potential employer contacts was constructed from employers who had responded to the 2001-2002 *Recruiting Trends* survey, and employer members listed in the directories of the Midwest Association of Colleges and Employers and the National Association of Colleges and Employers. The initial contact list totaled slightly more than 6,400 companies.

The initial mailing was sent at the beginning of September. After concerted efforts to track down bad addresses or identify appropriate contacts, the final list was about 6,000 contacts. Also deleted from the list were a few companies that declined to participate because of company policy. Later approximately 800 new companies were added to balance economic sections and regions of the country.

A final contact effort was made by telephone to contact those who responded last year or were MwACE members. From this effort, it was estimated that 45% of the contacts were either no longer in the identified position, telephone numbers had changed, or the company was no longer in the location listed in the directory (some merged and some went out of business).

After adjusting the list of employers, approximately 5,000 employers were contacted that could potentially respond. Thus, the response of 376 employers, which represented a 7% response rate.

To tell a complete story, employers were asked to complete as many questions as possible, realizing some companies may not have set hiring expectations or want to reveal salaries. We chose to only accept surveys that provided as complete information as was possible.

Key variable definitions that were used in this report are included to clarify the text.

- a. Academic majors: The list was taken from the National Association of Colleges and Employers major categories (a list familiar to many professionals). Added to the list were categories for “all majors,” “liberal arts,” “all majors in selected categories,” (technical, business, etc.) and majors omitted from their list, such as packaging engineer and supply chain management.
- b. Regions of the United States:
 - Northeast-Mid-Atlantic:** Maine, Vermont, New Hampshire, Massachusetts, New York, Rhode Island, Connecticut, Delaware, New Jersey, Pennsylvania, and Maryland
 - Southeast:** Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Tennessee, and Kentucky
 - Northcentral:** Ohio, Indiana, Michigan, Illinois, Wisconsin, Minnesota, Iowa, Nebraska, North Dakota, and South Dakota
 - Southcentral:** Missouri, Arkansas, Louisiana, Texas, Oklahoma, and Kansas
 - Southwest:** Colorado, New Mexico, Arizona, Utah, California, and Hawaii
 - Northwest:** Wyoming, Montana, Idaho, Oregon, Washington, and Alaska
- c. North American Industrial Classification (taken from Standard Industrial Classification):
 - Agriculture and Natural Resources Services:* Establishments engaged in agricultural production, agricultural services, mining activities, forestry and logging, and oil and gas extraction.
 - Accommodation and Food Services:* Hotels; motels; food services; drinking establishments.
 - Non Profits:* religious; civic; private households; education.
 - Arts and Entertainment:* Performing arts; museums, amusement and recreation industries.

Construction: Includes contractors and operative builders engaged in construction of residential, industrial, and commercial buildings; heavy construction, such as highways, bridges, etc. are also included; special trade contractors and service providers associated with construction.

Health Care: Hospitals; ambulatory care services; nursing and residential care facilities; social assistance.

Information: Publishing industry; broadcasting and telecommunication; motion pictures and sound recording; information services and data processing services.

Management of Companies: Administrative and support services; waste management; travel services; investigation and security services; services to buildings/dwellings.

Manufacturing: Establishments engaged in the mechanical or chemical transformation of materials or substances into new products; also include assembling of component parts and blending of materials.

Transportation and Warehousing: All types of transportation services (air, rail, water, and truck), includes support services for transportation; couriers and messengers; storage services.

Wholesale Trade: Establishments engaged in selling merchandise to retailers, other wholesalers, or business/industrial users.

Retail Trade: Establishments engaged in selling merchandise for personal or household consumption and rendering services incidental to the sale of the goods.

Finance: Establishments operating primarily in the fields of finance, insurance, and real estate.

Professional Services, Scientific and Technical Services: Provide services to businesses and individuals including legal, accounting, architectural, engineering, design (computer systems and specialized), management consultants; marketing research, including public opinion polls; environmental consulting; scientific research; advertising.

Government: Includes activities of federal, state, and local governments, including research by public agencies (space).

Utilities: Electric power generation; national gas distribution.

- d. **Company size.** Respondents were asked to provide the size of the unit that they recruited. The range was reduced to four groups with each group containing approximately 25% of the sample.

All the analyses were conducted using the SPSS statistical package. Access to the data can be requested from the Director of Research, Dr. Phil Gardner.

APPENDIX B EMPLOYER PROFILE

The characteristics of the 376 responding establishments to this study are provided in this appendix. These employers have a definite Midwest, manufacturing, slant though every section of the country and major industrial sector are represented in the set of responses.

Respondents' Gender: 55% female, 45% male

Location (mailing state) or organization by region:

Northeast-Mid-Atlantic:	Maine, Vermont, New Hampshire, Massachusetts, New York, Rhode Island, Connecticut, Delaware, New Jersey, Pennsylvania, and Maryland
Southeast:	Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Tennessee, and Kentucky
Northcentral:	Ohio, Indiana, Michigan, Illinois, Wisconsin, Minnesota, Iowa, Nebraska, North Dakota, and South Dakota
Southcentral:	Missouri, Arkansas, Louisiana, Texas, Oklahoma, and Kansas
Southwest:	Colorado, New Mexico, Arizona, Utah, California, and Hawaii
Northwest:	Wyoming, Montana, Idaho, Oregon, Washington, and Alaska

Size of Parent Organization (number of employees) that has been grouped into five categories:

<u>Organizational Size</u>	<u>n</u>	<u>%</u>
<60	103	28
61-300	88	24
301-1,600	89	24
>1,601	84	23

Industrial Sector: For each respondent their major North American Industrial classifications (NAIC) code which, reflected their organizations' products and services was used to assign to industrial sector. Only the first three numerals were utilized. Some companies have more than one NAIC code. This year we chose to only assign the primary or major NAIC code. A computer manufacturer may build components (manufacturing) and sell computers (retail), for example. According to their responses, the group represented these industrial sectors:

Industrial Sector	n	%
Public Utilities	10	3
Construction	14	4
Manufacturing	121	32
Wholesale	7	2
Retail	12	3
Transportation	3	1
Information	24	6
Finance, Insurance	27	7
Professional Services	82	22
Business Support Services	10	3
Health	11	3
Non Profits	7	2
Food & Lodging	27	7
Government	19	5

Recruiting Territory: Respondents were asked which areas of the United States that their organizations recruited candidates. They were allowed to check all the areas that applied.

<u>Recruiting Areas</u>	<u>n</u>	<u>%</u>
International	30	8
Entire United States	66	18
Northeast	27	7
Mid Atlantic	28	8
Southeast	23	6
Great Lakes	103	28
Upper Plains	15	4
Northwest	16	4
Southwest	23	6

Techniques and Strategies Used to Recruit College Graduates. Each respondent was asked to check the strategies that their organization used to find qualified college candidates for employment. The following list provides the percentage that utilized the strategy. Employers use a variety of techniques to identify candidates – the most common being “on-campus recruiting.”

<u>Recruiting Technique/Strategy</u>	<u>n</u>	<u>%</u>
On-campus recruiting	151	41
Organizational web/Internet postings	156	43
Resume referral by college	121	33
Job fairs	151	41
Job listing service (Web)	91	25
Ads in papers, professional journals	110	30
Co-op/internship program	124	34
External staffing prof./consultants	38	10
Local/regular Internet job boards	65	18
Others (referrals from staff)	32	9

Then they were asked to select only their top three strategies used in recruiting. Accordingly 54% indicated that their primary strategy was on-campus recruiting, followed by job fairs and web postings. The other strategies were not as widely used. For those companies with co-op programs, these programs serve as an important source for hiring.

<u>Primary Strategy</u>	<u>n</u>	<u>%</u>
On-campus recruiting	214	22
Job fairs	165	17
Organization’s Web/Internet posting	153	17
Co-op/internship program	128	13
Ads in papers, professional journals	106	11
Resume referrals	89	9
Job listing service (Web)	63	6
Local Internet boards	46	5
External staffing prof./consultants	36	4

Majors Sought: Respondents could identify the top five academic majors they were seeking in 2001-02 (100 respondents selected 5 majors). Employers identified majors, including all majors, all business majors, all technical majors, and all liberal arts. These are the top listed majors.

Major Sought	n	% of Total
Mechanical	82	8
Electrical	81	8
Computer Science	67	6
Accounting	47	4
All Business	70	6
Marketing	46	4

Majors by College	n	% of Total
Ag/Nat Resources/Construction	23	2
Business	344	32
Communications	42	4
Engineering	344	32
Computer Science	137	13
Social Science	16	1
Natural Science	67	6
Arts & Humanities/Liberal Arts	28	3
Human Ecology	10	1
Allied Health	31	3
All Majors	28	3

*Biggest loss was in computer science and business; if aggregate arts & humanities/liberal arts/social science about the same as last year.

APPENDIX C-1

These average salaries by major serve as benchmarks for comparing the bachelor salary ranges respondents from this study expect to offer this year.

Average Salary Bachelor Degree Only Benchmarks: NACE and MSU

Academic Majors	NACE ¹ 2002 Salaries (\$)	MSU ¹ 2002 Estimates (\$)
Accounting	39,494	38,600
Business Administration	36,378	38,100
Finance	39,961	42,000
Marketing	33,690	36,900
Hospitality	28,753	30,100
Human Resources	33,844	36,900
Logistics/Supply Chain Mgt.	39,521	42,800
Merchandising	---	33,900
Advertising	31,158	33,000
Communications	30,451	33,800
Chemical Engineering	51,137	49,700
Civil Engineering	41,193	38,700
Computer Engineering	51,135	48,900
Electrical Engineering	40,391	50,200
Industrial Engineering	46,755	---
Mechanical Engineering	48,282	49,800
Engineering Technology	45,458	---
Packaging	---	45,000
Computer Science	49,413	47,600
Information Sciences	41,375	---
Management Information Systems	42,524	---
Construction	41,506	50,400
Mathematics	41,543	38,000
Chemistry	34,566	42,500
Biological Sciences	29,554	---
Political Science	28,546	29,100
Psychology	26,738	32,100
Journalism	27,811	23,600
Telecommunications	---	39,800
Criminal Justice	27,594	38,900
Public Relations	28,742	---

¹Taken from National Association of Colleges and Employers. Salary Survey: A study of 2001-02 beginning offers. Vol. 41(4). Bethlehem, PA 18017 and Career Services and Placement. The Salary Report for 2001-02 Graduates: An Interim Report. November, 2002. Michigan State University, E Lansing MI 48824. Averages have been rounded for convenience.

APPENDIX C-2

Major	Expected Salary Range for 2001-2002 (reported last year)	Actual Starting Range Reported (reported this year)
Construction		
BA	41,300-42,700	37,900-39,900
Manufacturing		
BA	42,300-45,800	41,800-45,600
MA	55,100-61,000	55,100-60,100
PhD	66,700-72,000	69,700-75,000
Wholesale Trade		
BA	35,600-38,200	35,000-37,500
Retail		
BA	34,400-38,600	36,200-37,700
MA	39,800-46,000	48,800-53,000
PhD	69,700-77,700	---
Transportation		
BA	31,200-37,700	39,400-42,600
Information		
BA	36,400-39,300	41,500-45,700
MA	46,800-50,600	54,200-64,600
Finance/Insurance		
BA	36,400-39,400	34,000-36,800
MA	47,700-49,200	40,500-48,500
Professional Services		
BA	40,500-44,900	38,300-41,800
MA	47,400-52,400	47,100-52,800
PhD	53,200-63,800	63,800-65,000
Health		
BA		
Food/Lodging		
BA	30,300-36,900	30,000-37,100
Public Admin.		
BA	34,700-38,400	35,000-41,000
MA	47,300	43,600-52,600

APPENDIX D

Additional Data Tables and Figures

Hiring Patterns for Firms of Various Sizes by Degree Level

Firm Size	Average Hires Made 2001-02	Average Hires Expected 2002-03	Expected Change (%)
All graduates			
<60	14 (80)	14.6 (80)	+4
61-300	15.5 (77)	17.7 (77)	+14
301-1,600	22.9 (76)	23.6 (76)	+3
>1,600	93.7 (72)	87.7 (72)	-6
Associates			
<60	2.2 (16)	1.5 (16)	-32
61-300	7.5 (22)	8.2 (22)	+9
301-1,600	7 (16)	7.1 (16)	+1
>1,600	29.4 (15)	22.5 (15)	-23
Bachelors			
<60	12.7 (72)	14.2 (73)	+12
61-300	12 (76)	14 (76)	+17
301-1,600	19.2 (72)	18.5 (72)	-4
>1,600	74.4 (70)	71 (70)	-5
Masters			
<60	4.8 (26)	6 (26)	+25
61-300	3.8 (28)	3.6 (28)	-5
301-1,600	5.4 (34)	4.3 (34)	-17
>1,600	20 (43)	19.3 (43)	-3
PhD			
<60	2.6 (14)	2.7 (14)	+4
61-300	2.5 (4)	1.5 (4)	-40
301-1,600	9.8 (6)	10.5 (6)	+7
>1,600	6.5 (20)	5.9 (20)	-9

() Number of respondents reporting a figure.

APPENDIX E TOTAL PACKAGE

THE ENTIRE PACKAGE: What do employers want to see when they begin evaluating college candidates for employment? The entire package! Extracted from responses to the question, “What are the five most important skills or competencies that a candidate needs to possess in order to be considered for employment?” The “total package” that candidates should possess includes these skills:

The Total Package: Candidates need to be academically prepared in their discipline as it pertains to their employment – this is considered a given by employers. Plus,

1. Communication skills (228 comments) that demonstrate solid verbal, written, and listening abilities. The capstone is presentation skills that include the ability to respond to questions and serious critique of the presentation material.
2. Computer/technical aptitudes (124 comments) based on the level required for the position being filled. Computer ability is now perceived as a given core skill; right up there with reading, writing, and mathematics. The ability levels (expectations) for computer knowledge and application continue to rise.
3. Leadership (82 comments) – the ability to take charge or relinquish control (followership) according to the needs of the organization; closely aligned with possessing management abilities.
4. Teamwork (70 comments) – working cooperatively and collaboratively with different people while maintaining autonomous control over some assignments.
5. Interpersonal abilities (80 comments) that allow a person to relate to others, inspire others to participate, or mitigate conflict between co-workers.
6. Personal traits. The shape of the above competencies are molded by a combination of personal traits, specifically demonstrate initiative and motivation; flexible/adaptable to handle change and ambiguity; hard-working (work ethic) and reliability; honesty and integrity; and ability to plan and organize multiple tasks. Emerging as a key personal trait is an individual’s ability to provide “customer service” – anticipating customer needs and the demeanor to respond positively to customer concerns.

The Wrapping: Several skills or experiences bind the package and are essential to holding it together. Without these skills, a candidate may not be able to deliver the package.

1. Critical thinking/problem solving – the ability to identify problems and their solutions by integrating information from a variety of sources and effectively weigh alternatives.
2. Intelligence and common sense.
3. Willingness to learn quickly and continuously.
4. Work related experiences that provided an understanding of the workplace and served to apply classroom learning.

This list should be no surprise to anyone – these skills and competencies have been bantered about since the new economy began to emerge in the late 1980’s. Why this section needs our attention is the context in which many employers expressed their qualifications. Because the economy is moving so quickly, candidates must enter their position already demonstrating their command of these competencies. There is neither time nor the luxury of training a highly qualified academic candidate in these skills. Employers demand that the “total package” be delivered at graduation.