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ABSTRACT

The 21st annual survey of recruiting trends analyzed responses of 464 organizations and businesses employing new college graduates. Of those interviewed, 83.8 percent were businesses, industries, manufacturing organizations, and service sector employers and 16 percent were local, state, and Federal Government agencies and the military services. Among the findings listed in this summary of the 21st annual edition are: a decrease of hiring quotas by 10 percent, with business decreasing the least (1.9 percent) and the military the most (20.7 percent); the stability of the job market jeopardized by the recession; the biggest hiring increases expected in construction and building contractors (up 97 percent); average annual starting salary expected for bachelor's degree graduates in 1991-92 is \$27,037; medium availability of jobs expected for most areas of the nation with the exception of the northeast, where a low availability is expected; layoffs have curtailed or sharply reduced hiring of new college graduates; and cooperative education and internship programs are "the way of the future" and good sources of new hires. Additional data is provided in the following categories: campus recruiting, numbers of graduates and employers who reneged on offers of employment, new and emerging occupations, overseas opportunities, affirmative action/equal opportunity programs, cost of training graduates, shortcomings among college graduates, and employees as reservists called up for the Iraqi Crisis. A listing of the employers surveyed completes the report. (JB)

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21st Anniversary Edition

# RECRUITING TRENDS 1991-92

A Study of Businesses, Industries,  
and Governmental Agencies  
Employing New College Graduates

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*21st Anniversary Edition*

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**By**

**L. Patrick Scheetz, Ph.D.**

**Assistant Director  
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L. Patrick Scheetz, Ph.D.  
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Summary of  
**RECRUITING TRENDS 1991-92**

**A Study of 464 Businesses, Industries,  
and Governmental Agencies  
Employing New College Graduates**

This summary of the 21st annual edition of the Recruiting Trends survey reviews the expectations of employers hiring new college graduates for the 1991-92 college labor market. A total of 4,850 employers were invited to participate and represented (1) members of the College Placement Council or a regional placement association, (2) employers registered with Career Development and Placement Services at Michigan State University, and (3) employers randomly selected from a list of small businesses in the Standard and Poor's Register. Surveys were initially mailed first-class to employers on September 6, 1991, with follow-up reminder notices mailed first-class on October 15, 1991.

Data from this survey are quoted by many prestigious news media including ABC's Good Morning America; CNN's national and overseas news services; the NBC Nightly News with Tom Brokaw; USA Today; The Black Collegian; WJR radio in Detroit; KOA radio in Denver; ABC and CBS television and radio stations throughout the country; and numerous other magazines and newspapers nationwide.

Responses were received from 513 organizations (10.6%), and 464 of these were complete enough for statistical analysis purposes. This sample adequately reflects the expectations of organizations recruiting on college and university campuses in 1991-92.

Of this year's respondents, 389 were businesses, industries, manufacturing organizations, and service sector employers (83.8%); and 75 were local, state, and federal government agencies and the military services (16.2%). This year, elementary and secondary school districts were not included in this survey. (Page 1)

Special questionnaires were designed for (1) businesses and industries; and (2) federal, state, and local government agencies. Each survey was administered separately.

Questions focused on anticipated changes in hiring trends for new college graduates, expected starting salaries, campus recruitment activities, and other topics of interest to personnel administrators, placement officers, career counselors, faculty, and students. Open-ended questions were included, so surveyed employers could provide comments on topics such as: signs of change in the general employment market for new college graduates, factors used when selecting colleges for recruitment activities, job expectations of college graduates, new and emerging occupations, shortcomings of today's college graduates, influences of grade point averages on hiring decisions, and the impact of layoffs on hiring of new graduates.

Job Opportunities for the Class of 1991-92

For the third consecutive year, new college graduates face a tighter job market. According to business, industry, and government employers responding to this year's survey, a decrease in hiring quotas of 10.0% can be expected. Last year, a decrease of 9.8% was projected, and in 1988-89, a decrease of 13.3% was reported. Business and industry hiring is expected to decline the least, approximately 1.9% less than a year ago, and government and the military employment opportunities are expected to decrease 20.7%. (Pages 1-3)

The current economic climate and recession are seriously jeopardizing the stability of the job market for new college graduates, according to surveyed employers. The questions facing organizations this year are: Is the economy going to take another dip, stay at its present level, or rebound? What impact will current economic conditions have on the general, long-term financial profile of organizations? In answer to these questions, employers are generally expecting continued economic hardship. (Page 22-23)

Thus, they are hesitant to hire large numbers of new college graduates, preferring to hire too few rather than too many new college graduates. In addition, layoffs in many industries, availability of former graduates who already have two or three years of experience, fewer job openings, and depressed business conditions are all contributing factors to holding down hiring quotas. The return of financial health to organizations would support long-term gains in college recruiting, but most surveyed employers were not optimistic that this business outlook would prevail in 1991-92. (Page 22-23)

Regardless of the current job market for new college graduates, there are available employment opportunities, but not enough exist for all new graduates to find career opportunities requiring college degrees. Graduates who have been hard-working students and planned for life after graduation will obtain jobs. The employment market is always strong for well-motivated students who are well-rounded, have earned above-average grades, and work hard at finding a job. Those who have not prepared for transition from college to career will not find the positions they want.

### Hiring Quotas for This Year (1991-92)

Although an overall decrease in hiring is expected this year, pockets of job openings will exist, varying considerably for different employer categories. Caution needs to be taken when interpreting data for individual employer groups, because of occasionally small sample sizes. Figures reported in this publication best reflect the market for the companies responding to this survey.

Employers expecting to increase hiring of new college graduates this year include: construction and building contractors (97.0%); glass, packaging, and allied products (36.1%); social service, religious, and volunteer organizations (29.5%); hospitals and health care services (20.6%); electronics, computers, and electrical equipment manufacturers (20.2%); engineering, research, consulting, and other professional services (15.6%); textiles, home furnishings, and apparel manufacturers (12.6%); merchandising and retailing (11.0%); diversified conglomerates (5.6%); and accounting firms (5.4%). (Pages 1-3)

Expected to remain near last year's levels of hiring is tire, rubber, and allied products. (Pages 1-3)

Decreases in hiring quotas for this year are anticipated by aerospace and components (-3.1%); public utilities including transportation (-4.1%); agribusiness (-10.9%); metals and metal products (-12.6%); hotels, motels, restaurants, and recreational facilities (-12.9%); banking, finance, and insurance (-13.7%); food and beverage processing (-16.1%); governmental administration and the military including federal, state, and local levels (-20.7%); automotive and mechanical equipment (-22.8%); chemicals, drugs, and allied products (-28.9%); lumber, wood products, and furniture manufacturers (-30.6%); communications and telecommunications including telephones and newspapers (-30.7%); and petroleum and allied products (-38.6%). (Pages 1-3)

## Signs of Change in the General Employment Market For New College Graduates This Year (1991-92)

When predicting signs of change in the general employment market for new college graduates this year (1991-92), surveyed employers were not encouraging. They expected a continuation of the current recession to hold down employment growth and hiring, so another difficult year was forecast. Employers indicated that the economy has affected abilities of most organizations to add new and/or fill existing positions. Even moderate increases in business volume cannot be expected this year. (Pages 22-23, 52)

Because the job market this year will remain very tight, more graduating students are expected to continue their education for advanced degrees, and a greater percentage of new college graduates will probably be unemployed.

Competition for technical degree graduates will likely be high, but not as high as a year or two years ago. A healthy job market with good growth opportunities is predicted for the areas of engineering, computer science, and nursing/ health care services majors.

Fewer opportunities for liberal arts and general business administration majors are expected. A continuing decrease in demand for MBA's (especially those with limited or no experience), fine arts, finance, and economics majors is anticipated.

Government employment may be viewed more favorably by new college graduates during this economic downturn, since selected government agencies will have job openings. But job opportunities with some government agencies are directly dependent upon defense spending, which has decreased, and government deficits are holding down hiring in other sectors of the government payroll.

Less campus recruiting is contemplated. Consequently, companies visiting college campuses will be more selective in their hiring criteria. Companies will only be hiring the best. Employers reported substantially more resumes received directly from new graduates than in past years. According to employers, it would be very easy to recruit solely through this method.

As layoffs continue and jobs are eliminated, new college graduates will find themselves competing against more experienced personnel for management trainee and entry level positions. Surveyed employers reported that individuals with several years of experience and higher levels of educational background are accepting jobs at lower pay levels. Many unemployed professionals are applying for entry level jobs, so companies can hire experienced people at entry-level salaries.

Because of more competition among the college graduate population, students will have to be better prepared by getting good grades, working in cooperative education programs or internship positions, and being better able to "sell themselves." Having a college degree is not enough anymore to land job opportunities.

### Starting Salary Averages and Anticipated Increases

Among surveyed employers, the average annual starting salary expected for bachelor's degree graduates in 1991-92 is \$27,037, an increase of \$608 (2.3%) over last year's starting salary of \$26,429. Expected starting salary offers for advanced degrees include: \$36,175 for MBA graduates with no increase; \$33,660 for master's degree graduates, a 0.6% increase; and \$38,068 for doctoral degree graduates with no increase. (Pages 24-25)

Other categories of graduates expecting starting salary increases are: women graduates with bachelor's degrees (2.3%); minority graduates with bachelor's degrees (2.4%); and handicapped graduates with bachelor's degrees (3.1%).

Starting salary offers for new bachelor's degree graduates are expected to vary substantially between academic majors. Highest among anticipated increases for this year (1991-92) will be mechanical engineering (3.5%); chemical engineering (3.0%); computer science (3.0%); and electrical engineering (2.6%).

Increases between 1.5% and 2.5% are expected this year for personnel administration (2.5%); civil engineering (2.4%); general business administration (2.4%); accounting (2.3%); chemistry (2.2%); education (2.1%); nursing (2.0%); industrial engineering (2.0%); hotel, restaurant, and institutional management (1.8%); agriculture (1.8%); mathematics (1.7%); financial administration (1.7%); physics (1.7%); liberal arts/ humanities (1.7%); and human ecology/ home economics (1.5%).

Starting salary increases of less than 1.5% are expected for telecommunications (1.4%); natural resources (1.4%); communications (1.4%); marketing/sales (1.4%); social science (1.4%); journalism (1.3%); advertising (1.2%); geology (1.1%); and retailing (0.9%).

Expected starting salary offers for academic majors with bachelor's degrees this year are: chemical engineering (\$38,394), mechanical engineering (\$35,555), electrical engineering (\$34,917), industrial engineering, (\$32,774), and computer science (\$32,105). (Pages 24-25)

Continuing the list are civil engineering (\$29,824), physics (\$29,724), nursing (\$29,159), geology (\$28,776), chemistry (\$28,105), mathematics (\$27,835), accounting (\$27,195), marketing/sales (\$26,124), general business administration (\$25,653), financial administration (\$25,382), education (\$23,402), personnel administration (\$22,953), agriculture (\$22,702), hotel restaurant and institutional management (\$22,570), telecommunications (\$22,434), advertising (\$22,194), communications (\$22,107), natural resources (\$21,776), social science (\$21,674), liberal arts/arts and letters (\$21,667), human ecology/home economics (\$20,653), journalism (\$20,079), and retailing (\$20,030). (Pages 24-25)

### Job Categories Experiencing the Most Growth And New/Emerging Careers

Experiencing the most growth in opportunities for new college graduates among surveyed employers were the following job categories: accountants, chemists, computer scientists, customer services representatives, data processing technicians, engineers, financial analysts, geologists, retail/ merchandise management trainees, nurses, occupational therapists, physical therapists, and sales/ marketing representatives. (Page 39)

New and emerging occupations reported by surveyed organizations were air pollution control engineers, computer applications developers, computer aided designers, database designers, desktop publishing specialists, computer engineers, computer information systems specialists, computer operators, process control engineers, computer programmers and systems analysts, computer training specialists, environmental quality/ safety engineers, fossil power plant engineers, geologists, graphics software engineers, industrial hygienists, laser research and development specialists, laser optics engineers, logistics and loss prevention specialists, quality control/ assurance engineers, skin scientists, technical writers, thermal analysts, toxic waste management specialists, video specialists, and visual database designers. (Page 40)

### Job Opportunities by Geographical Region

Based upon the experiences and judgment of surveyed employers, only "medium availability" of employment opportunities for new college graduates will exist in any geographical region of the country this year. Receiving a "medium" rating were the northcentral (71.4%), southeastern (67.9%), southwestern (66.9%), southcentral (54.1%), and northwestern (50.2%) regions of the United States. Low availability of jobs for new college graduates was again expected in the northeastern (42.3%) region of the United States. (Page 64)

### Overseas/International Job Opportunities

Most surveyed employers with available job opportunities in overseas locations required significant prior work experiences before candidates were hired to fill overseas or international positions. Only 29 of 453 employers (6.4%) reported overseas assignments. Quite often, before overseas assignments were considered, this experience was required within the organization with the opening. (Page 6-7, 41)

Some surveyed employers would only hire applicants for overseas positions from the local economy. For these positions, entry level staff were hired in the country with the openings, requiring citizenship of that country, and the individuals had to be eligible to work without time limits (i.e. permanent work visas were required).

Among surveyed employers, positions available in overseas locations for new college graduates included: chemistry Ph.D., engineers (electrical engineers and computer engineers), insurance underwriters, claims representatives, marketing and sales associates, management trainees, business managers, international sales engineers, technical sales representatives, technical services representatives, reporters, research and development engineers, and veterinary medical officers.

## Equal Employment Opportunity/Affirmative Action Minorities and Women

When reporting on effectiveness of affirmative action/ equal employment opportunity programs, 299 surveyed employers (84.2%) felt that programs in their organizations had generally been effective. But numerous employers felt their programs could be more effective. These employers reported that EEO/AA programs were not working as well as they would like. Female and minority applicants were recruited and hired at increased levels, but more emphasis could be placed on continuing improvement and making further progress toward hiring goals. As evidence of attaining recruitment goals, some employers were reporting that 70% of their new hires were minorities and/or women. (Pages 44-45)

Attitudes have changed and very good advances have been made by women and minorities in surveyed organizations. Occasionally lacking was a management commitment, but there have been improvements in EEO/AA emphasis from management over the past few years. Nevertheless, there is need to continue to push for more women and minorities in the workplace. Continuing education is needed to open doors and minds. Some managers still need to be reminded about the importance of EEO/AA programs. And recruiters must consciously keep EEO/AA goals in mind as they recruit. (Pages 44-45)

Aggressive efforts are needed to meet EEO/AA goals for minorities and women. A heavier concentration of effort must be placed on more active targeting of protected classes, interviewing at minority campuses, and increased engineering recruitment. (Page 18)

At the current time, enrollments of women and minorities in engineering are too limited to meet hiring goals of all organizations needing them. There is generally a shortage of technically trained talent who are minorities and women, and finding enough viable sources of applicants is difficult. (Page 18)

Attracting minorities has been difficult. Recruitment efforts have not been as organized or as focused as they should be to be effective. Another factor was geographical location, which was sometimes a disadvantage for employers. To attract applicants, some companies were paying premium salaries, but others limited payments of higher salaries except for engineers. An increased emphasis has been placed on recruitment at colleges with good representations of women, people of color, and people who are differently abled.

Retention of minorities and women has also been difficult due to the demand on a limited supply, reported employers. To help reduce attrition, additional cooperation is needed among employers and increased contacts are needed on college campuses and in university departments (i.e. minority engineering organizations, etc.).

### Handicappers Hired by Employers

On the payrolls of 453 businesses, industries, and governmental agencies responding to a question on handicapper employment were 4,095,114 salaried employees (excluding clerical staff). Of these, 9,706 were handicapped persons (0.2%): hearing impaired, blind/ visually impaired, mobility impaired, mentally retarded, cerebral palsied, or epileptic. (Pages 6-7, 24)

The largest numbers of handicapped personnel were employed by governmental administration and the military including federal, state, and local levels (6,846); public utilities including transportation (582); aerospace and components (459); engineering, research, consulting, and other professional services (328); merchandising and retailing (311); automotive and mechanical equipment (221); electronics, computers, and electrical equipment manufacturers (202); hospitals and health care services (195); banking, finance, and insurance (136); and communications and telecommunications including telephones and newspapers (117).

### Selecting College Campuses for Recruitment Activities

When selecting college campuses for recruitment activities, surveyed employers reported several very important factors used by their organizations. Among them were size and enrollment at the institution, diversity of student population, past history of on-the-job experience with graduates, academic disciplines offered, faculty presence in the employers' organizations, and academic prestige of the institution. Additional details about the employers' factors and their influence on selection of college campuses are contained in this report. (Page 29)

### Campus Visits, Interviews Arranged, Hires from Interviews, and Offers of Employment Accepted

Employers responding to this year's survey expected a substantial decrease in campuses visited (-27.7%). Last year, employers had expected to decrease campuses visited by 4.9%. A year earlier, a slight increase was expected (0.7%). (Page 26)

Fewer total interviews (-16.7%) were expected by surveyed employers on college campuses this year (1991-92) too. This compares to an anticipated increase of 1.4% last year. (Page 27)

One measurement of recruitment efficiency used by organizations when assessing the performance of their personnel function was interviews held per new hire obtained. For technical graduates (those in engineering, computer science, or the natural sciences) interviewed by responding organizations on college campuses last year (1991-92), 17.7% were hired. Of non-technical graduates (those in business or the liberal arts) interviewed by responding organizations, 15.8% were hired. (Page 28)

An indicator of job market trends for new college graduates is the percentage of job offers accepted. Of offers extended to technical college graduates during 1990-91, 62.7% were accepted, according to 213 surveyed employers who reported data. A higher acceptance rate most likely suggests either improved recruitment techniques, a more difficult job market for technical graduates, or better job opportunities because job applicants accepted them at a higher rate. (Page 29)

Of job offers extended to non-technical graduates during 1990-91, 62.0% were accepted, according to 198 surveyed employers responding to this question. Acceptance rates for job offers varied considerably for various employer categories. (Page 29)

## Impact of Layoffs on Hiring of New College Graduates

Among surveyed organizations, the impact of layoffs has been most notable in the curtailment or sharply reduced hiring of new college graduates. In addition, downsizing of organizations has meant that openings are more often filled with internal candidates. In these organizations, college recruiting has been postponed for a year or more and hiring freezes have been initiated. (Page 36)

Increased competition exists and fewer positions are available on the job market for new college graduates today because of layoffs throughout the employment market. The current market is extremely competitive, since there are many applicants with experience and advanced degrees available and willing to accept employment at entry-level salaries.

The reputations of organizations have been substantially damaged among new college graduates when layoffs occurred. As an example, a retail outlet with store closings in college towns found it difficult to recruit new employees. Among other organizations that have not laid off any college graduates in several years, their recruitment programs were still feeling the impact from current students. The reputations of these industries for closing plants and facilities were remembered and repeated as advice from parents and faculty.

Among some employers of new college graduates, personnel have not been laid off, but when staff members have left, companies have not made an attempt to replace these individuals, preferring to consolidate job functions and/or responsibilities. In addition, there are fewer opportunities for upward mobility--positions have been eliminated as attrition continues. This affects employment opportunities for college graduates, since a lack of upward mobility causes a bottleneck at lower job levels.

Employers report that graduates often ask questions about potential layoffs during employment interviews. The prospects of layoffs is causing graduates to be more concerned with job security and stability of their positions. To settle this fear of new hires, some employers are assuring new college graduates that they will not be included in any layoff plans, and are offering guaranteed employment for an initial three or four years. (Page 36)

## Cooperative Education and Internship Programs

According to surveyed employers, cooperative education and internship programs are the "way of the future." These programs are excellent sources of new hires, especially for attracting minority applicants and quality, loyal personnel. Full-time employment is not guaranteed, but organizations certainly use these programs to assess the capabilities of students for future employment prospects. If employment opportunities are available at the time of graduation, interns who have performed satisfactorily are frequently given first priority among job applicants. (Page 37-38)

## Percentage Hired with No Prior Career-Related Work Experience

Of the new college graduates hired by 453 surveyed employers last year (1990-91), 28.9% had no prior career-related work experiences. Employer categories hiring the greatest percentage of new college graduates with no prior career-related work experiences were tire and rubber (100.0%); engineering, research, consulting, and other professional services (74.1%); public utilities including transportation (66.4%); banking, finance, and insurance (63.6%); and agribusiness (61.4%). Approximately as many new college graduates with and without prior career-related work experiences were hired by accounting firms (49.9%); and textiles, home furnishings, and apparel manufacturers (48.1%). (Page 11)

## New College Graduates Realistic about Job Expectations

Of 339 employers responding, 29 organizations (8.4%) indicated that new college graduates were not realistic about their job expectations after graduation. As suggestions for improvement, surveyed employers recommended that colleges: teach their graduating students more patience, provide them with more realistic salary ranges, discuss entry-level job duties with them, give them more practical work experiences, and inform them that a college degree is merely their ticket for proving themselves to an organization. (Pages 33-34)

According to surveyed employers, too many new college graduates are given false hopes about high starting salaries. Employers mentioned that starting salary averages are heavily dependent upon the geographical location of the first assignment and the job responsibilities of the position. Also, new graduates should realize that all new graduates do not command superstar salaries and immediate appointment to top-level management positions.

More exposure to practical and "real-world" work environments was encouraged, along with more practical coursework, to make new college graduates better prepared. Internships, cooperative education assignments, and summer employment options were requested. These experiences were mentioned as very good for providing realistic understanding and expectations about the first job after graduating from college.

Especially with current economic conditions, new graduates must work their way up the corporate ladder, putting in their time "like everyone else." A flattening of the pyramid in most corporations has occurred, so the rise to middle or even upper levels of management will be slower and tougher. Too often, graduating students think promotional opportunities are easily accessible. (Pages 33-34)

## Grade Point Averages Influence Hiring Decisions

According to surveyed employers, grade point averages (GPAs) have at least medium importance at the interviewing stages of a job campaign and when choosing applicants for final interviews, but poor grade point averages will generally receive negative replies from employers. (Page 55)

GPA's are used as one of several criteria by employers when making decisions on hiring. Other factors include: personality of the applicant as observed in the interview, maturity, social skills, campus activities, work experiences, academic background, problem-solving abilities, leadership skills, flexibility, geographical preferences, historical academic record, and class standing.

Among employers reporting GPA's as very important and a critical influence when obtaining an interview were organizations with available positions in high technology assignments, research and development, design/ analysis fields, engineering, and accounting. In these organizations, GPA's are weighed strongly before any hiring can occur. These employers require GPA's of 3.0, 3.5, or better for hiring consideration.

When hiring decisions are difficult, GPA's have even greater importance. As an example, when two candidates are rated equally on all other factors, GPA's are seriously considered. When applicants are poor interviewees, excellent GPA's can make a difference. GPA's are not very important when candidates are scarce, but they are important when work experiences are limited. In some organizations, higher GPA's may receive higher starting salaries.

Of course, very low grade point averages can be knock out factors. Low GPA's may suggest that graduates have just skated through college. Employers tend to be leery of anything below a 2.5.

### Most Serious Problems Experienced by College Recruiters

Serious problems are seldom experienced by personnel representatives when recruiting on college campuses, but a few matters were important enough for employers to mention. Among the most serious, graduating students are often unfocused about their career plans, and their job expectations and needs are unrealistic when interviewing with prospective employers. These students are either not serious about their career plans, or they do not know what they want to do upon graduation. Graduates underestimate the number of work hours expected of them and overestimate the salary they expect to receive, especially those graduating without prior career-related work experiences. (Page 19)

The organizations' images, name recognition, and/or identities were not well-known or well-polished among graduating students. This matter was related to the problem of keeping a positive image on campuses when corporations were not in a high recruiting mode. Budget cuts, downsizing, hiring freezes, and generally poor economic performances by companies were extending the situation. Building an awareness among college students and establishing a reputation as an outstanding employer was challenging. Identifying applicants who knew the organization and the organizations' work assignments was difficult.

### Best Questions from Prospective Job Applicants

When listing some of the best questions asked of them while interviewing prospective job applicants, employers provided several excellent examples. Their questions were categorized into the following groups: general topics, career motivation, anticipated job responsibilities, work environment, affirmative action, quality of work, personality factors, products and services, employment trends, measures of work performance, salary and benefits, and interview closure items. When preparing for interviews with prospective employers, graduating students should find this list very helpful. (Pages 56-57)

Among the better questions were these: What is the financial stability of this company? What changes do you see for this company in the near future? Why did you accept work with this company? Why do you continue to work for this organization? What do you like most (or least) about this company? Would you want your son/ daughter to work for this company too? What makes your association with this employer enjoyable? Two more pages of questions are included in this final report.

### Training Costs and Length for New College Graduates

According to surveyed employers, the approximate cost of training a new college graduate last year (including any related costs) was \$11,131. A total of 145 employers reported data for this analysis. (Pages 46-47)

When reporting hours of training per week (excluding on-the-job training) received by new college hires during the initial six (6) months in their organizations, employers reported an average of 15.7 hours per week. Training varied considerably among employer categories.

### Criteria Recommended for Use by College Students When Preparing for a Career Today

When referencing their experiences during recruitment and hiring of new college graduates and recommending preparation needed for careers today, surveyed employers revealed that college students should use several selection criteria. Among those suggested were a serious analysis of personal interests, employment outlook data, financial and job security information, a review of personal aptitudes and abilities, academic areas of expertise, and prior work experiences. (Pages 48-49)

Most important, according to surveyed employers, was a genuine interest in an occupation. To achieve job satisfaction, individuals must like the work they are performing. Those who achieve the best results for organizations are working on assignments they enjoy. Those who do not enjoy their work will not succeed at it. So, employers suggest to students: find within yourselves a "core" set of skills (i.e. interpersonal, analytical, cognitive, etc.) that you enjoy doing and then concentrate on applying those skills within different work situations. Thus, an analysis of likes and dislikes, preferences, desires, challenges, genuine interest, commitments, and true joys are critical to achieving this understanding. Personal and vocational interest inventories, values clarification exercises, and creative interest surveys could help. The bottom line is: college students should learn their true interests and seek commitment to an occupation that appeals to them. If a career excites them, and it has relatedness to their professional goals, a match will occur. This assessment of personal strengths ought to be included in any decisions regarding career alternatives.

## Most Noticeable Shortcomings Among Today's College Graduates

When reporting on the most noticeable shortcomings of today's college graduates, surveyed employers cited unrealistic career aspirations, mediocre writing and public speaking skills, a lack of tenacity, and a marginal work ethic. (Pages 50-51)

The unrealistic career aspirations and work expectations of college graduates was quite troublesome for employers. There was a general lack of concern among new college graduates about the long-term career goals and opportunities an employer could offer. They were more concerned about immediate gratification of needs. They wanted to start at the top, and they wanted it all right now! They had elevated expectations of entry level positions.

There was also a sense among employers that new graduates felt they had already "paid their dues" and their employers owed them something. They had high expectations of their initial knowledge and productive contribution to a business. They were not realistic about the duties, which are not glamorous, and hard work that would be required on their first job. They did not see the big picture; a short-sightedness that would only be remedied with experience. They lacked imagination, initially after graduation. Graduates only wanted to work eight to five. They were not concerned about growing with a company. They did not know their limits due to inexperience. They lacked loyalty to the company, refused to have patience, and they expected to start at high wages.

Their writing skills, oral communication and public speaking abilities, and interpersonal competencies were noticeably worse than in previous years. When making presentations, their competencies needed significant improvement. Their spelling, grammar, and abilities to use proper English were weak. Horrible spelling and incomplete thoughts were often expressed on applications.

The mathematical skills and problem-solving abilities of new college graduates needed improvement. They should become familiar with business procedures, development of production systems, and new management tools--total quality management, concurrent engineering, and product processing. Real-life organizational experiences and more liberal arts coursework especially in the engineering curriculum would be helpful, according to employers. (Pages 50-51)

## Suggestions for College Seniors Prior to Interviewing

As suggestions for college seniors when interviewing prospective employers, surveyed organizations recommended thorough research before interviews, a clear definition of career goals, and enthusiasm and sincerity during the interview. (Pages 53-54)

Research organizations in advance of an interview, advised employers. Do some homework. Learn all the information you can about an organization or available positions and thoroughly explore all options before making a decision to accept employment. Show that your interests are not only limited to a paycheck. Become knowledgeable about the organization's history, philosophy, values, products, structure, etc. Don't wait for the recruiters to tell you about their organizations. Research annual reports, company literature, and employers' videotapes. This is a widely ignored activity and not impressive when applicants neglect it. Time together with a recruiter in an interview is more productive if the basics are already known.

Define your career goals and the opportunities you want. Know yourself, your skills and abilities, strengths and shortcomings, traits and characteristics you possess that make you a desirable candidate for employment. Learn to market yourself. Have some specific areas of career interest. Be ready to discuss these in an interview. Be targeted, yet flexible. Keep an open mind regarding opportunities. Consider relocation. Be open to several areas of special interest, since prospects in other areas might offer greater opportunities. Know your accomplishments and their influences on your probable future successes. Realize at the same time that the current job market for new graduates is extremely competitive.

Show some enthusiasm and sincere interest during the interview if you really have an interest in the position. Communicate effectively. Exhibit passion and depth. Show commitment and patience. Appear eager and hardworking, and absolutely be on time. Be prepared to discuss your fit within an organization and explain how you can excel at that company. Promote abilities you can contribute to the organization. Show some flexibility based upon needs of the employer. Don't be too selective since it will be a tough market this year. (Pages 53-54)

### Assistance Offered to Dual-Career Couples

Dual-career couples are provided with several services by prospective employers when one spouse is hired and the other is not, according to surveyed employers. "Usually" provided are housing information, apartment advice, and travel cost assistance. (Pages 58-59)

Provided "sometimes" are relocation allowances, tours of the local community, contacts with local organizations, interviews within the hiring organization when appropriate positions might be available, and other assistance with job search strategies. Employers admitted that this was an area of increased concern. (Pages 58-59)

### Drug, Alcohol, and AIDS Testing

According to 353 employers responding, drug testing of new college graduates was required by 55.2% this year. Included in this percentage were employers who sometimes, usually, or always screened for drugs. Percentages of employers requiring drug testing in previous years of this study included 59.3% in 1990-91, 47% in 1989-90, 32% in 1988-89, 27% in 1987-88, and 20% in 1986-87. (Page 63)

Testing for alcohol levels among new college graduates was required by 31.2% of surveyed employers. This compares to 28.1% in 1990-91, 25% in 1989-90, 14% in 1988-89, and 9% in 1987-88.

AIDS testing for new college graduates was required by only 2.1% of the employers responding to this year's survey. Testing for AIDS in previous years included 5.4% in 1990-91, 4% in 1989-90, 3% in 1988-89 and 2% in 1987-88.

Of surveyed employers currently not screening job applicants for drug use, 8.2% intend to initiate a drug testing program within one year, 6.4% within two years, and 7.0% within five years. Of organizations not currently screening for alcohol levels, 2.3% intend to initiate an alcohol testing program within one year, 2.3% within two years, and 1.9% within five years. Of organizations not screening for AIDS, 0.7% intend to initiate an AIDS testing program within one year, 1.0% within two years, and 2.4% within five years.

How many new college graduates were hired last year (1990-91) for professional positions in your organization, and how many new hires are anticipated this year (1991-92)? Responses are listed by MAJOR EMPLOYER CATEGORY.

Employer Types	Number of New Hires Last Year			Anticipated New Hires This Year			Change from Last Year Percent
	Number of Employers	Total Hired	Average	Number of Employers	Total Hired	Average	
Business, Industry	389	29,484	76	389	28,916	74	-1.9
Government	75	22,514	300	75	17,861	238	-20.7
Overall Totals	464	51,998	112	464	46,777	101	-10.0

Observations: According to surveyed employers, the job market for new college graduates this year is expected to decrease (-10.0%), the third year in a row with declining hiring quotas. Last year, a decrease of 9.8% was projected, and in 1988-89, a decrease of 13.3% was reported.

Decreases are expected in all major employer categories: business and industry (-1.9%) and governmental agencies (-20.7%).

How many new college graduates were hired last year (1990-91) for professional positions in your organization, and how many new hires are anticipated this year (1991-92)? Responses are listed by EMPLOYER CATEGORY.

Employer Types	Number of New Hires Last Year			Anticipated New Hires This Year			Change from Last Year Percent
	Number of Employers	Total Hired	Average	Number of Employers	Total Hired	Average	
Accounting	12	6,712	559	12	7,074	590	5.4
Aerospace	18	1,375	76	18	1,333	74	-3.1
Agribusiness	8	267	33	8	238	30	-10.9
Automotive	11	1,841	167	11	1,421	129	-22.8
Banking, Finance	34	1,643	48	34	1,418	42	-13.7
Chemicals	18	2,282	127	18	1,622	90	-28.9
Communication	13	1,947	150	13	1,350	104	-30.7
Construction	7	67	10	7	132	19	97.0
Conglomerates	5	54	11	5	57	11	5.6
Electronics	48	3,996	83	48	4,805	100	20.2
Research, Consulting & Prof. Svcs.	52	2,915	56	52	3,371	65	15.6
Food Processing	9	112	12	9	94	10	-16.1
Packaging	4	61	15	4	83	21	36.1
Government	75	22,514	300	75	17,861	238	-20.7
Hospitals	15	684	46	15	825	55	20.6
Hotels Motels	18	583	32	18	508	28	-12.9
Wood Products	6	327	55	6	227	38	-30.6
Merchandising	30	1,721	57	30	1,911	64	11.0
Metals	17	595	35	17	520	31	-12.6
Petroleum	11	949	86	11	583	53	-38.6
Public Utilities	37	1,115	30	37	1,069	29	-4.1
Volunteer Org.	9	44	5	9	57	6	29.5
Textiles	5	191	38	5	215	43	12.6
Tire & Rubber	2	3	2	2	3	2	0.0
Overall Totals	464	51,998	112	464	46,777	101	-10.0

Observations: A comparison of new college graduates hired last year with anticipated new hires for this year revealed that the job market is expected to decrease overall by approximately 10.0% this year (1991-92).

Caution needs to be taken when interpreting data for individual employer groups, because of occasionally small sample sizes. Figures reported best reflect the market for the companies responding to this survey.

Employer categories expecting increases include construction and building contractors (97.0%); glass, packaging, and allied products (36.1%); social service, religious, and volunteer organizations (29.5%); hospitals and health care services (20.6%); electronics, computers, and electrical equipment manufacturers (20.2%); engineering, research, consulting, and other professional services (15.6%); textiles, home furnishings, and apparel manufacturers (12.6%); merchandising and retailing (11.0%); diversified conglomerates (5.6%); and accounting firms (5.4%).

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Tire, rubber, and allied products are expecting no change in quotas this year.

Decreases in hiring quotas for this year are anticipated by aerospace and components (-3.1%); public utilities including transportation (-4.1%); agribusiness (-10.9%); metals and metal products (-12.6%); hotels, motels, restaurants, and recreational facilities (-12.9%); banking, finance, and insurance (-13.7%); food and beverage processing (-16.1%); governmental administration and the military including federal, state, and local levels (-20.7%); automotive and mechanical equipment (-22.8%); chemicals, drugs, and allied products (-28.9%); lumber, wood products, and furniture manufacturers (-30.6%); communications and telecommunications including telephones and newspapers (-30.7%); and petroleum and allied products (-38.6%).

**How many new college graduates were hired last year (1990-91) for professional positions in your organization, and how many new hires are anticipated this year (1991-92)? Responses are listed by GEOGRAPHICAL REGION.**

	Number of New Hires Last Year			Anticipated New Hires This Year			Change from Last Year Percent
	Number of Employers	Total Hired	Average	Number of Employers	Total Hired	Average	
<b>Employer Sizes</b>							
1-99	92	321	3	92	276	3	-14.0
100-499	87	953	11	87	930	11	-2.4
500-999	62	1,277	21	62	1,247	20	-2.3
1000-4999	125	5,652	45	125	5,416	43	-4.2
5000-9999	36	4,320	120	36	3,776	105	-12.6
10,000+	62	39,475	637	62	35,132	567	-11.0
<b>Overall Totals</b>	<b>464</b>	<b>51,998</b>	<b>112</b>	<b>464</b>	<b>46,777</b>	<b>101</b>	<b>-10.0</b>

Observations: Surveyed organizations of every employer size are reporting anticipated decreases in hiring quotas for new college graduates in 1991-92: employers with 1 to 99 employees (-14.0%); organizations with 100 to 499 employees (-2.4%); employers with 500 to 999 employees (-2.3%); organizations with 1,000 to 4,999 employees (-4.2%); employers with 5,000 to 9,999 employees (-12.6%); and organizations with 10,000 or more employees (-11.0%);

**RESPONSES RECEIVED FROM  
BUSINESSES, INDUSTRIES, AND GOVERNMENTAL AGENCIES  
for 1991-92**

Which category best describes your organization, and how many salaried employees (excluding clerical staff) are on the payroll of your organization? The number of responses received for each answer are on the first line and percentages of total on the second line. Responses are listed by **EMPLOYER CATEGORY**.

**Size of Organization by  
Number of Salaried Employees**

**Employer  
Categories**

Frequency Percent	1-99	100-499	500-999	1000- 4999	5000- 9999	10,000+	Total
Accounting	6 1.29	2 0.43	0 0.00	0 0.00	0 0.00	4 0.86	12 2.59
Aerospace	0 0.00	4 0.86	1 0.22	3 0.65	5 1.08	5 1.08	18 3.88
Agribusiness	3 0.65	0 0.00	2 0.43	2 0.43	1 0.22	0 0.00	8 1.72
Automotive	1 0.22	4 0.86	0 0.00	2 0.43	1 0.22	3 0.65	11 2.37
Banking, Finance	4 0.86	9 1.94	3 0.65	12 2.59	3 0.65	3 0.65	34 7.33
Chemicals	0 0.00	4 0.86	3 0.65	4 0.86	2 0.43	5 1.08	18 3.88
Communication	4 0.86	0 0.00	3 0.65	5 1.08	0 0.00	1 0.22	13 2.80
Construction	3 0.65	2 0.43	0 0.00	2 0.43	0 0.00	0 0.00	7 1.51
Conglomerates	0 0.00	1 0.22	2 0.43	0 0.00	1 0.22	1 0.22	5 1.08
Electronics	13 2.80	4 0.86	8 1.72	14 3.02	3 0.65	6 1.29	48 10.34
Research, Consul	13 2.80	14 3.02	6 1.29	13 2.80	4 0.86	2 0.43	52 11.21
Food Processing	0 0.00	3 0.65	0 0.00	2 0.43	1 0.22	3 0.65	9 1.94
<b>Total</b>	<b>92 19.83</b>	<b>87 18.75</b>	<b>62 13.36</b>	<b>125 26.94</b>	<b>36 7.76</b>	<b>62 13.36</b>	<b>464 100.00</b>

(Continued)

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**Size of Organization by  
Number of Salaried Employees**

**Employer  
Categories**

Frequency Percent	1-99	100-499	500-999	1000- 4999	5000- 9999	10,000+	Total
Packaging	1 0.22	1 0.22	0 0.00	2 0.43	0 0.00	0 0.00	4 0.86
Government	14 3.02	13 2.80	8 1.72	19 4.09	7 1.51	14 3.02	75 16.16
Hospitals	2 0.43	6 1.29	1 0.22	5 1.08	0 0.00	1 0.22	15 3.23
Hotels Motels	7 1.51	4 0.86	3 0.65	3 0.65	0 0.00	1 0.22	18 3.88
Wood Products	1 0.22	0 0.00	1 0.22	1 0.22	1 0.22	2 0.43	6 1.29
Merchandising	6 1.29	5 1.08	2 0.43	10 2.16	3 0.65	4 0.86	30 6.47
Metals	4 0.86	2 0.43	3 0.65	4 0.86	2 0.43	2 0.43	17 3.66
Petroleum	1 0.22	0 0.00	4 0.86	4 0.86	0 0.00	2 0.43	11 2.37
Public Utilities	1 0.22	6 1.29	11 2.37	15 3.23	2 0.43	2 0.43	37 7.97
Volunteer Org.	7 1.51	0 0.00	1 0.22	1 0.22	0 0.00	0 0.00	9 1.94
Textiles	0 0.00	2 0.43	0 0.00	2 0.43	0 0.00	1 0.22	5 1.08
Tire & Rubber	1 0.22	1 0.22	0 0.00	0 0.00	0 0.00	0 0.00	2 0.43
<b>Total</b>	<b>92 19.83</b>	<b>87 18.75</b>	<b>62 13.36</b>	<b>125 26.94</b>	<b>36 7.76</b>	<b>62 13.36</b>	<b>464 100.00</b>

Observations: Responses to the Recruiting Trends survey for 1991-92 were received from 464 employers representing businesses, industries, manufacturing organizations, service sector employers, and governmental agencies. Organizations with 1,000 to 4,999 employees represented 26.9% of the respondents; those with 100 to 499 employees represented 18.8% of the respondents; and organizations with 1 to 99 employees represented 19.8% of the respondents. Organizations with 10,000 or more employees represented 13.4% of the respondents; those with 500 to 999 employees represented 13.4% of the respondents; and organizations with 5,000 to 9,999 employees represented 7.8% of the respondents.

How many salaried employees (excluding clerical staff) are currently on the payroll of your organization, how many salaried employees are in overseas locations, and how many are handicappers (i.e. hearing impaired, blind/visually impaired, mobility impaired, mentally retarded, cerebral palsied, or epileptic)? Responses are listed by EMPLOYER CATEGORY.

Employer Types	Number of Employees			Number of Employees Overseas			Number of Handicappers		
	Number of Employers	Total Employees	Average	Number of Employers	Total Overseas	Percent	Number of Employers	Total	Average
Accounting	11	56,559	5,142	9	5,100	9.0%	7	1	0
Aerospace	17	231,543	13,620	12	129	0.0%	7	459	66
Agribusiness	8	13,731	1,716	8	70	0.5%	6	44	7
Automotive	11	255,804	23,255	8	72,766	28.4%	7	221	32
Banking, Finance	33	131,613	3,988	27	10,585	8.0%	14	136	10
Chemicals	15	268,392	17,893	9	43,128	16.0%	4	10	3
Communication	13	129,959	9,997	13	6,372	4.9%	9	117	13
Construction	7	6,289	898	7	340	5.4%	5	17	3
Conglomerates	5	24,340	4,868	4	15	0.0%	2	11	6
Electronics	48	1,074,067	22,376	37	31,979	2.9%	25	202	8
Research, Consulting & Prof. Svcs.	51	112,260	2,201	44	929	0.8%	35	328	9
Food Processing	8	137,387	17,173	4	9,000	6.5%	1	0	0
Packaging	4	5,003	1,251	4	110	2.1%	1	0	0
Government	75	907,090	12,095	56	1,435	0.1%	42	6,846	163
Hospitals	14	27,595	1,971	13	3,000	10.8%	10	195	20
Hotels Motels	18	121,032	6,724	13	0	0.0%	11	11	1
Wood Products	5	48,924	9,785	4	0	0.0%	2	13	7
Merchandising	30	297,450	9,915	23	349	0.1%	13	311	24
Metals	17	93,943	5,526	12	474	0.5%	8	72	9
Petroleum	10	25,071	2,507	7	1,967	7.8%	4	42	11
Public Utilities	37	93,437	2,525	32	0	0.0%	12	582	49
Volunteer Org.	9	3,278	364	8	0	0.0%	7	26	4
Textiles	5	30,060	6,012	3	550	1.8%	4	59	15
Tire & Rubber	2	287	144	2	1	0.3%	2	3	2
Overall Totals	453	4,095,114	9,040	359	188,299	4.5%	238	9,706	41

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**Observations:** On the payrolls of 453 businesses, industries, and governmental agencies responding to this question are 4,095,114 salaried employees (excluding clerical staff). Of these, 188,299 salaried employees (4.5%) are in overseas locations. These organizations reported that 9,706 handicapped persons (0.2%) were on their payrolls: hearing impaired, blind/visually impaired, mobility impaired, mentally retarded, cerebral paised, or epileptic.

Employing the largest number of salaried employees were electronics, computers, and electrical equipment manufacturers (1,074,067); and governmental administration and the military including federal, state, and local levels (907,090).

Other employer categories with large numbers of salaried employees were merchandising and retailing (297,450); chemicals, drugs, and allied products (268,392); automotive and mechanical equipment (255,004); aerospace and components (231,543); food and beverage processing (137,387); banking, finance, and insurance (131,613); communications and telecommunications including telephones and newspapers (129,959); hotels, motels, restaurants, and recreational facilities (121,032); engineering, research, consulting, and other professional services (112,260); metals and metal products (93,943); public utilities including transportation (93,437); accounting firms (56,559); lumber, wood products, and furniture manufacturers (48,924); textiles, home furnishings, and apparel manufacturers (30,060); hospitals and health care services (27,595); petroleum and allied products (25,071); and diversified conglomerates (24,340).

Employer categories with the highest percentages of salaried employees in overseas locations were automotive and mechanical equipment (28.4%); chemicals, drugs, and allied products (16.0%); and hospitals and health care services (10.8%).

Reporting fewer salaried employees overseas were accounting firms (9.0%); banking, finance, and insurance (8.0%); petroleum and allied products (7.8%); food and beverage processing (6.5%); construction and building contractors (5.4%); communications and telecommunications including telephones, newspapers (4.9%); electronics, computers, and electrical equipment manufacturers (2.9%); glass, packaging, and allied products (2.1%); textiles, home furnishings, and apparel manufacturers (1.8%); engineering, research, consulting, and other professional services (0.8%); agribusiness (0.5%); metals and metal products (0.5%); tire, rubber, and allied products (0.3%); governmental administration and the military including federal, state, and local levels (0.1%); and merchandising and retailing (0.1%).

The largest numbers of handicapped personnel were employed by governmental administration and the military including federal, state, and local levels (6,846); public utilities including transportation (582); aerospace and components (459); engineering, research, consulting, and other professional services (328); merchandising and retailing (311); automotive and mechanical equipment (221); electronics, computers, and electrical equipment manufacturers (202); hospitals and health care services (195); banking, finance, and insurance (136); and communications and telecommunications including telephones, newspapers (117).

Within the last year (1990-91), how many salaried employees were laid off by your organization? Responses are listed by **EMPLOYER CATEGORY**.

Employer Types	Layoff of Salaried Employees			
	Yes		No	
	Number of Employers	Percent	Number of Employers	Percent
Accounting	1	9.0%	10	90.9%
Aerospace	14	82.3%	3	17.6%
Agribusiness	4	50.0%	4	50.0%
Automotive	9	81.8%	2	18.1%
Banking, Finance	11	36.6%	19	63.3%
Chemicals	6	42.8%	8	57.1%
Communication	5	38.4%	8	61.5%
Construction	3	42.8%	4	57.1%
Conglomerates	2	40.0%	3	60.0%
Electronics	31	65.9%	16	34.0%
Research, Consulting & Prof. Svcs.	25	49.0%	26	50.9%
Food Processing	2	28.5%	5	71.4%
Packaging	.	.	4	100.0%
Government	16	25.8%	46	74.1%
Hospitals	1	7.1%	13	92.8%
Hotels Motels	3	21.4%	11	78.5%
Wood Products	2	40.0%	3	60.0%
Merchandising	13	44.8%	16	55.1%
Metals	6	37.5%	10	62.5%
Petroleum	1	11.1%	8	88.8%
Public Utilities	9	24.3%	28	75.6%
Volunteer Org.	3	37.5%	5	62.5%
Textiles	1	25.0%	3	75.0%
Tire & Rubber	.	.	2	100.0%
<b>Overall Totals</b>	<b>168</b>	<b>39.5%</b>	<b>257</b>	<b>60.4%</b>

Observations: Of 425 employers responding to this question, 168 organizations (39.5%) laid off salaried employees within the last year (1990-91).

The employer categories most frequently laying off salaried employees were aerospace and components (82.3%); automotive and mechanical equipment (81.8%); and electronics, computers, and electrical equipment manufacturers (65.9%).

Less frequently laying off salaried employees were agribusiness (50.0%); engineering, research, consulting, and other professional services (49.0%); merchandising and retailing (44.8%); construction and building contractors (42.8%); chemicals, drugs, and allied products (42.8%); diversified conglomerates (40.0%); lumber, wood products, and furniture manufacturers (40.0%); communications and telecommunications including telephones, newspapers (38.4%); metals and metal products (37.5%); social service, religious, and volunteer organizations (37.5%); banking, finance, and insurance (36.6%); food and beverage processing (28.5%); governmental administration and military including federal, state, and local (25.8%); textiles, home furnishings, and apparel manufacturers (25.0%); public utilities including transportation (24.3%); and hotels, motels, restaurants, and recreational facilities (21.4%).

Layoffs of salaried employees least frequently occurred in petroleum and allied products (11.1%); accounting (9.0%); and hospitals and health care services (7.1%).

No layoffs of salaried employees were reported by glass, packaging, and allied products; and tire, rubber, and allied products.

In September, 1990 (a year ago), how many new college graduates did your organization expect to hire, and how many new college graduates were actually hired last year (1990-91) for professional positions in your organization? Responses are listed by EMPLOYER CATEGORY.

Employer Types	Anticipated New Hires Last Year			Number of New Hires Last Year			Change for Last Year Percent
	Number of Employers	Total Hired	Average	Number of Employers	Total Hired	Average	
Accounting	11	8,641	786	11	6,678	607	-22.7
Aerospace	16	1,224	77	17	801	47	-38.4
Agribusiness	8	202	25	8	267	33	32.2
Automotive	9	3,305	367	11	1,841	167	-54.4
Banking, Finance	30	1,468	49	33	1,623	49	0.5
Chemicals	14	2,086	149	15	1,696	113	-24.1
Communication	12	2,203	184	13	1,947	150	-18.4
Construction	7	146	21	7	67	10	-54.1
Conglomerates	4	97	24	5	54	11	-55.5
Electronics	46	3,916	85	48	3,996	83	-2.2
Research, Consulting & Prof. Svcs.	48	3,414	71	51	2,887	57	-20.4
Food Processing	7	56	8	8	103	13	60.9
Packaging	4	85	21	4	61	15	-28.2
Government	61	13,571	222	75	22,514	300	34.9
Hospitals	12	619	52	14	677	48	-6.3
Hotels Motels	13	104	8	18	583	32	304.9
Wood Products	5	26	5	5	27	5	3.8
Merchandising	25	1,909	76	30	1,721	57	-24.9
Metals	15	299	20	17	595	35	75.6
Petroleum	9	339	38	10	374	37	-0.7
Public Utilities	35	1,037	30	37	1,115	30	1.7
Volunteer Org.	8	61	8	9	44	5	-35.9
Textiles	5	68	14	5	191	38	180.9
Tire & Rubber	1	0	0	2	3	2	-
Overall Totals	405	44,876	111	453	49,865	110	-0.7

Observations: When comparing expected new hires in September, 1990, with actual new hires in 1990-91, surveyed employers reported an overall net difference of -0.7%. From this percent, there appeared to be no significant difference between anticipated hires and actual hires, but substantial differences (increases and decreases) were noted in almost every employer category when calculating these differences for each.

The greatest reductions in hiring were reported by diversified conglomerates (-55.5%); automotive and mechanical equipment (-54.4%); construction and building contractors (-54.1%); aerospace and components (-38.4%); social service, religious, and volunteer organizations (-35.9%); glass, packaging, and allied products (-28.2%); merchandising and retailing (-24.9%); chemicals, drugs, and allied products (-24.1%); accounting (-22.7%); engineering, research, consulting,

Continued . . .

and other professional services (-20.4%); and communications and telecommunications including telephones, newspapers (-18.4%).

Slight reductions in hiring were experienced by hospitals and health care services (-6.3%); electronics, computers, and electrical equipment manufacturers (-2.2%); and petroleum and allied products (-0.7%).

No difference was noted between anticipated hires and actual hires for tire, rubber, and allied products.

Substantial increases in hiring were reported by agribusiness (32.2%); governmental administration and military including federal, state, and local (34.9%); food and beverage processing (60.9%); metals and metal products (75.6%); textiles, home furnishings, and apparel manufacturers (280.9%); and hotels, motels, restaurants, and recreational facilities (304.9%).

Among new college graduates hired by your organization last year (1990-91), how many had no prior career-related work experiences? Responses are listed by EMPLOYER CATEGORY.

New Graduates Hired Last Year	Number of Employers	No. of New Graduates Hired	New Hires without Experiences	
			Total Hired	Percent
<b>Employer Types</b>				
Accounting	11	6,678	3,333	49.9%
Aerospace	17	801	71	8.8%
Agribusiness	8	267	164	61.4%
Automotive	11	1,841	81	4.3%
Banking, Finance	33	1,623	1,033	63.6%
Chemicals	15	1,696	62	3.6%
Communication	13	1,947	37	1.9%
Construction	7	67	17	25.3%
Conglomerates	5	54	22	40.7%
Electronics	48	3,996	553	13.8%
Research, Consulting & Prof. Svcs.	51	2,887	2,141	74.1%
Food Processing	8	103	41	39.8%
Packaging	4	61	5	8.1%
Government	75	22,514	5,100	22.6%
Hospitals	14	677	81	11.9%
Hotels Motels	18	583	12	2.0%
Wood Products	5	27	0	0.0%
Merchandising	30	1,721	586	34.0%
Metals	17	595	109	18.3%
Petroleum	10	374	156	41.7%
Public Utilities	37	1,115	741	66.4%
Volunteer Org.	9	44	1	2.2%
Textiles	5	191	92	48.1%
Tire & Rubber	2	3	3	100.0%
<b>Overall Totals</b>	<b>453</b>	<b>49,865</b>	<b>14,441</b>	<b>28.9%</b>

Observations: Of the new college graduates hired by 453 surveyed employers last year (1990-91), 28.9% had no prior career-related work experiences.

Employer categories hiring the greatest percentage of new college graduates with no prior career-related work experiences were tire & rubber (100.0%); engineering, research, consulting, and other professional services (74.1%); public utilities including transportation (66.4%); banking, finance, and insurance (63.6%); and agribusiness (61.4%).

Approximately as many new college graduates with and without prior career-related work experiences were hired by accounting firms (49.9%); and textiles, home furnishings, and apparel manufacturers (48.1%).

Less receptive to hiring new college graduates with no prior career-related work experiences were petroleum and allied products (41.7%); diversified conglomerate (40.7%); food and beverage processing (39.8%); merchandising and retailing (34.0%); construction and building contractors (25.3%); governmental administration and military including federal, state, and local (22.6%); metals and metal products (18.3%); and electronics, computers, and electrical equipment manufacturers (13.8%).

Least receptive to hiring new college graduates with prior career-related work experiences were hospitals and health care services (11.9%); aerospace and components (8.8%); glass, packaging, and allied products (8.1%); automotive and mechanical equipment (4.3%); chemicals, drugs, and allied products (3.6%); social service, religious, and volunteer organizations (2.2%); hotels, motels, restaurants, and recreational facilities (2.0%); communications and telecommunications including telephones, newspapers (1.9%); and lumber, wood products, and furniture manufacturers (0.0%).

Were foreign nationals hired last year (1990-91) for positions with your organization in the United States, and were U.S. citizens hired by your organization last year (1990-91) for positions in overseas locations?

Employer Types	Hire Foreign Nationals Last Year			
	Yes		No	
	Number of Employers	Percent	Number of Employers	Percent
Accounting	1	11.1%	8	88.8%
Aerospace	.	.	12	100.0%
Agribusiness	3	42.8%	4	57.1%
Automotive	2	28.5%	5	71.4%
Banking, Finance	6	26.0%	17	73.9%
Chemicals	7	77.7%	2	22.2%
Communication	3	25.0%	9	75.0%
Construction	1	20.0%	4	80.0%
Conglomerates	.	.	3	100.0%
Electronics	10	32.2%	21	67.7%
Research, Consulting & Prof. Svcs.	12	32.4%	25	67.5%
Food Processing	2	28.5%	5	71.4%
Packaging	.	.	4	100.0%
Government	8	15.6%	43	84.3%
Hospitals	5	45.4%	6	54.5%
Hotels Motels	2	18.1%	9	81.8%
Wood Products	1	25.0%	3	75.0%
Merchandising	6	24.0%	19	76.0%
Metals	4	36.3%	7	63.6%
Petroleum	.	.	8	100.0%
Public Utilities	4	13.7%	25	86.2%
Volunteer Org.	.	.	6	100.0%
Textiles	1	20.0%	4	80.0%
Tire & Rubber	1	50.0%	1	50.0%
Overall Totals	79	24.0%	250	75.9%

Employer Types	Hire U.S. Citizens in Overseas Locations			
	Yes		No	
	Number of Employers	Percent	Number of Employers	Percent
Accounting	1	12.5%	7	87.5%
Aerospace	.	.	11	100.0%
Agribusiness	.	.	7	100.0%
Automotive	1	11.1%	8	88.8%
Banking, Finance	.	.	20	100.0%
Chemicals	2	25.0%	6	75.0%
Communication	1	8.3%	11	91.6%
Construction	1	16.6%	5	83.3%
Conglomerates	1	33.3%	2	66.6%
Electronics	6	18.7%	26	81.2%
Research, Consulting & Prof. Svcs.	6	15.3%	33	84.6%
Food Processing	.	.	5	100.0%
Packaging	.	.	2	100.0%
Government	1	1.9%	50	98.0%
Hospitals	.	.	12	100.0%
Hotels Motels	.	.	11	100.0%
Food Products	.	.	4	100.0%
Merchandising	2	8.3%	22	91.6%
Metals	1	10.0%	9	90.0%
Petroleum	.	.	8	100.0%
Public Utilities	1	3.8%	25	96.1%
Volunteer Org.	.	.	6	100.0%
Textiles	.	.	5	100.0%
Tire & Rubber	.	.	2	100.0%
Overall Totals	24	7.4%	297	92.5%

Observations: A total of 79 organizations (24.0%) reported hiring of foreign nationals within their organizations in the United States, and 24 organizations (7.4%) reported hiring of U.S. citizens for positions in overseas locations.

Did your organization experience shortages of candidates in any academic majors or degree levels last year (1990-91) when recruiting new personnel, and which categories of candidates were short? Responses are listed by EMPLOYER CATEGORY.

Employer Types	Shortage of Candidates When Recruiting			
	Yes		No	
	Number of Employers	Percent	Number of Employers	Percent
Accounting	.	.	9	100.0%
Aerospace	2	14.2%	12	85.7%
Agribusiness	4	57.1%	3	42.8%
Automotive	1	11.1%	8	88.8%
Banking, Finance	2	7.1%	26	92.8%
Chemicals	6	50.0%	6	50.0%
Communication	2	15.3%	11	84.6%
Construction	.	.	7	100.0%
Conglomerates	.	.	3	100.0%
Electronics	4	10.5%	34	89.4%
Research, Consulting & Prof. Svcs.	11	27.5%	29	72.5%
Food Processing	3	42.8%	4	57.1%
Packaging	.	.	4	100.0%
Government	20	39.2%	31	60.7%
Hospitals	11	100.0%	.	.
Hotels Motels	1	9.0%	10	90.9%
Wood Products	.	.	3	100.0%
Merchandising	5	20.0%	20	80.0%
Metals	1	8.3%	11	91.6%
Petroleum	4	57.1%	3	42.8%
Public Utilities	4	11.7%	30	88.2%
Volunteer Org.	1	16.6%	5	83.3%
Textiles	1	25.0%	3	75.0%
Tire & Rubber	1	50.0%	1	50.0%
Overall Totals	84	23.5%	273	76.4%

Observations: Of 357 surveyed employers responding to this question, 23.5% experienced shortages of candidates in selected academic majors and degree levels last year (1990-91).

Employer categories with the largest percentages experiencing shortages of candidates were hospitals and health care services (100.0%); petroleum and allied products (57.1%); agribusiness (57.1%); chemicals, drugs, and allied products (50.0%); tire, rubber, and allied products (50.0%); food and beverage processing (42.8%); and governmental administration and the military including federal, state, and local levels (39.2%).

With 25% or fewer experiencing shortages were engineering, research, consulting, and other professional services (27.5%); textiles, home furnishings, and apparel manufacturers (25.0%); merchandising and retailing (20.0%); social service, religious, and volunteer organizations (16.6%); communications and telecommunications including telephones, newspapers (15.3%); aerospace and components (14.2%); public utilities including transportation (11.7%); automotive and mechanical equipment (11.1%); electronics, computers, and electrical equipment manufacturers (10.5%); hotels, motels, restaurants, and recreational facilities (9.0%); metals and metal products (8.3%); and banking, finance, and insurance (7.1%).

No shortages of candidates were experienced by accounting firms (0.0%); construction and building contractors (0.0%); glass, packaging, and allied products (0.0%); lumber, wood products, and furniture manufacturers (0.0%); and diversified conglomerates (0.0%).

Continued . . .

Among the surveyed employers experiencing shortages of candidates when recruiting new personnel for 1990-91, the following **ACADEMIC MAJORS** were listed. These academic majors and degree levels are provided in alphabetical order with frequencies of response noted after each:

<b>Agriculture and Natural Resources</b>	<b>Geologists, hydrogeologists</b>
<b>Architects- Naval</b>	<b>Hospitality services graduates</b>
<b>Biostatistics-Ph.D. level</b>	<b>Industrial hygienists</b>
<b>Business graduates-</b>	<b>Medical technologists (2)</b>
<b>General Business Administration</b>	<b>Microbiologists (2)</b>
<b>Accounting, actuary majors</b>	<b>Nuclear medicine</b>
<b>Chemists- Ph.D. (4)</b>	<b>Nursing (5)</b>
<b>Communications</b>	<b>Nurse Anesthetists</b>
<b>Advertising</b>	<b>Occupational therapists (8)</b>
<b>Computer scientists (8)</b>	<b>Pharmacists- 3</b>
<b>"C" language and Natural language</b>	<b>Physical therapists (8)</b>
<b>Management information systems</b>	<b>Physicists, health</b>
<b>majors</b>	<b>Psychiatrists</b>
<b>Engineers- (5)</b>	<b>Psychologists, clinical (2)</b>
<b>Civil engineers (4), land surveyors</b>	<b>Purchasing majors</b>
<b>Chemical engineers (6)</b>	<b>Respiratory Therapists (2)</b>
<b>Electrical engineers (2)</b>	<b>Retailing/ Merchandise Management</b>
<b>Environmental engineers, M.S. level</b>	<b>majors</b>
<b>(2)</b>	<b>Risk and Insurance majors</b>
<b>Industrial engineers</b>	<b>Speech and language pathologists (3)</b>
<b>Materials engineers with interest/</b>	<b>Toxicologists</b>
<b>concentration in metals</b>	<b>Veterinary medicine majors (DVM) (2)</b>
<b>Mechanical engineers</b>	
<b>Petroleum engineers (2)</b>	
<b>Plastics engineers</b>	
<b>Safety engineers</b>	
<b>Structural engineers, M.S. level</b>	
<b>Structural bridge engineers</b>	
<b>Water science engineers</b>	

Does your organization anticipate forthcoming shortages in any academic disciplines? Responses are listed by EMPLOYER CATEGORY.

Employer Types	Anticipate Shortage of Certain Graduates			
	Yes		No	
	Number of Employers	Percent	Number of Employers	Percent
Accounting	1	11.1%	8	88.8%
Aerospace	2	13.3%	13	86.6%
Agribusiness	4	57.1%	3	42.8%
Automotive	1	12.5%	7	87.5%
Banking, Finance	1	3.5%	27	96.4%
Chemicals	8	66.6%	4	33.3%
Communication	1	7.6%	12	92.3%
Construction	1	14.2%	6	85.7%
Conglomerates	1	33.3%	2	66.6%
Electronics	9	24.3%	28	75.6%
Research, Consulting & Prof. Svcs.	12	30.7%	27	69.2%
Food Processing	1	16.6%	5	83.3%
Packaging	3	75.0%	1	25.0%
Government	15	28.3%	38	71.6%
Hospitals	7	70.0%	3	30.0%
Hotels Motels	1	9.0%	10	90.9%
Wood Products	2	50.0%	2	50.0%
Merchandising	7	28.0%	18	72.0%
Metals	1	8.3%	11	91.6%
Petroleum	6	75.0%	2	25.0%
Public Utilities	7	21.2%	26	78.7%
Volunteer Org.	1	16.6%	5	83.3%
Textiles	1	33.3%	2	66.6%
Tire & Rubber	1	50.0%	1	50.0%
<b>Overall Totals</b>	<b>94</b>	<b>26.4%</b>	<b>261</b>	<b>73.5%</b>

Observations: Of 355 employers responding, 94 organizations (26.4%) anticipated forthcoming shortages of new college graduates.

Employers in the following categories more frequently anticipate forthcoming shortages: glass, packaging, and allied products (75.0%); petroleum and allied products (75.0%); hospitals and health care services (70.0%); chemicals, drugs, and allied products (66.6%); agribusiness (57.1%); lumber, wood products, and furniture manufacturers (50.0%); and tire, rubber, and allied products (50.0%).

Less frequently anticipating shortages were textiles, home furnishings, and apparel manufacturers (33.3%); diversified conglomerates (33.3%); engineering, research, consulting, and other professional services (30.7%); governmental administration and military including federal, state, and local (28.3%); merchandising and retailing (28.0%); electronics, computers, and electrical equipment manufacturers (24.3%); and public utilities including transportation (21.2%).

Fewer than 20% were anticipating shortages in social service, religious, and volunteer organizations (16.6%); food and beverage processing (16.6%); construction and building contractors (14.2%); aerospace and components (13.3%); automotive and mechanical equipment (12.5%); accounting firms (11.1%); hotels, motels, restaurants, and recreational facilities (9.0%); metals and metal products (8.3%); communications and telecommunications including telephones, newspapers (7.6%); and banking, finance, and insurance (3.5%).

Continued . . .

When anticipating forthcoming shortages, surveyed employers listed the following **ACADEMIC MAJORS**, provided in alphabetical order with frequencies of response noted after each:

<b>Accounting</b>	<b>Mathematics</b>
<b>Actuaries</b>	<b>Statistics</b>
<b>Chemistry</b>	<b>Medical technicians</b>
<b>Biostatisticians (4)</b>	<b>Microbiologists (2)</b>
<b>Computer scientists (4)</b>	<b>Nurses (5)</b>
<b>Management information systems</b>	<b>Operating room nurses</b>
<b>Data processing technicians</b>	<b>Nurse anesthetists</b>
<b>Electrical technologists</b>	<b>Occupational therapists (4)</b>
<b>Engineers (11) (especially at the M.S. level)</b>	<b>Pharmacists</b>
<b>Ceramic engineers</b>	<b>Physical therapists (4)</b>
<b>Chemical engineers (7)</b>	<b>Physicists, health</b>
<b>Civil engineers (6)</b>	<b>Psychologists (2)</b>
<b>Computer engineers</b>	<b>Respiratory therapists</b>
<b>Electrical engineers (3)</b>	<b>Retailing and merchandise management majors</b>
<b>Environmental engineers (2)</b>	<b>Social workers-MSW</b>
<b>Geo-technical engineers, M.S. level</b>	<b>Speech and language pathologists (2)</b>
<b>Industrial engineers</b>	<b>Veterinarians, medical officers</b>
<b>Materials engineers (metals)</b>	
<b>Mechanical engineers (2)</b>	
<b>Minority and female engineers</b>	
<b>Packaging engineers</b>	
<b>Petroleum engineers (2)</b>	
<b>Plastics engineers</b>	
<b>Production engineer</b>	
<b>Safety engineers</b>	
<b>Software engineers</b>	
<b>Structural engineers (MS level)</b>	
<b>Forestry</b>	
<b>Geologists (2)</b>	
<b>Hydrogeologists (2)</b>	
<b>Health professionals</b>	
<b>Horticulturists, especially urban forestry</b>	

Did your organization meet its hiring goals for new college graduates last year (1990-91)? If not, what prevented this from happening? Responses are listed by EMPLOYER CATEGORY.

Employer Types	Meet the Hiring Goals Last Year			
	Yes		No	
	Number of Employers	Percent	Number of Employers	Percent
Accounting	8	100.0%	.	.
Aerospace	9	81.8%	2	18.1%
Agribusiness	6	85.7%	1	14.2%
Automotive	7	77.7%	2	22.2%
Banking, Finance	21	80.7%	5	19.2%
Chemicals	7	58.3%	5	41.6%
Communication	10	83.3%	2	16.6%
Construction	4	57.1%	3	42.8%
Conglomerates	3	100.0%	.	.
Electronics	25	71.4%	10	28.5%
Research, Consulting & Prof. Svcs.	33	89.1%	4	10.8%
Food Processing	6	85.7%	1	14.2%
Packaging	3	75.0%	1	25.0%
Government	32	71.1%	13	28.8%
Hospitals	8	80.0%	2	20.0%
Hotels Motels	8	80.0%	2	20.0%
Wood Products	3	100.0%	.	.
Merchandising	20	90.9%	2	9.0%
Metals	7	70.0%	3	30.0%
Petroleum	5	71.4%	2	28.5%
Public Utilities	31	96.8%	1	3.1%
Volunteer Org.	5	83.3%	1	16.6%
Textiles	4	100.0%	.	.
Tire & Rubber	2	100.0%	.	.
Overall Totals	267	81.1%	62	18.8%

Observations: Of 329 employers responding to this question, 81.1% met the hiring goals of their organizations for new college graduates last year (1990-91).

Employer categories meeting their hiring goals, according to surveyed employers, were accounting firms (100.0%); lumber, wood products, and furniture manufacturers (100.0%); diversified conglomerates (100.0%); textiles, home furnishings, and apparel manufacturers (100.0%); and tire and rubber (100.0%).

Nearly meeting the hiring goals of their organizations (greater than 75%) were public utilities including transportation (96.8%); merchandising and retailing (90.9%); engineering, research, consulting, and other professional services (89.1%); agribusiness (85.7%); food and beverage processing (85.7%); social service, religious, and volunteer organizations (83.3%); communications and telecommunications including telephones and newspapers (83.3%); aerospace and components (81.8%); banking, finance, and insurance (80.7%); hotels, motels, restaurants, and recreational facilities (80.0%); hospitals and health care services (80.0%); automotive and mechanical equipment (77.7%); and glass, packaging, and allied products (75.0%).

Achieving less than 75% of their hiring goals were petroleum and allied products (71.4%); electronics, computers, and electrical equipment manufacturers (71.4%); governmental administration and the military including federal, state, and local levels (71.1%); metals and metal products (70.7%); chemicals, drugs, and allied products (58.3%); and construction and building contractors (57.1%).

Continued . . .

Meeting of the hiring goals of their organizations was difficult this year, according to surveyed employers, for reasons different than in the past. Reductions in hiring goals and major hiring freezes were initiated by several employers (12) due to the recession and its effect on business. As one respondent reported, their organization elected not to hire when they saw the year slipping financially. Another employer cited major restructuring and depressed business conditions as reasons for severely limiting hiring activities.

Budgetary constraints were cited by some employers (11) as reasons for their organizations not meeting their hiring goals. Limited budgets caused these employers to postpone their plans for hiring new employees until 1992 as a matter of expense containment in 1991.

The economic downturn in business (7), especially in the automotive-related organizations has forced reductions in hiring of engineers, a job category traditionally insulated from declines in the employment market conditions. Employer reported that less work for the organization meant less room for new hires.

Shortages of minority applicants (6) and a limited supply of graduates in certain academic majors prevented some organizations from meeting their hiring goals--engineers (especially petroleum engineers), physical therapists, and occupational therapists. Also, these employers indicated that the candidates did not meet their expectations.

Several organizations (13) noted that no hiring goals were established by their managers, since positions were only filled as openings became available. This was especially the situation in very small organizations, but some moderate-sized organizations were also included in this group.

Recruiting too late on college campuses was cited as another deterrent to achievement of organizations' hiring goals (3). By April or May, most of the better spring semester graduates were already committed to other organizations.

Rejections of job offers (6) due to low starting salaries, career advancement potential elsewhere, and poor geographical locations of work were mentioned by surveyed employers as deterrents to achievement of hiring goals. Also cited as reasons for graduates taking other offers was the physical labor required by some jobs.

What are the current, most serious problems experienced by your personnel representatives when recruiting on college campuses?

Observations: Serious problems are seldom experienced by personnel representatives when recruiting on college campuses, but a few matters were important enough for employers to mention. Among the most serious, graduating students are often unfocused about their career plans (33) or their job expectations/ needs are unrealistic. These students are either not serious about their career plans, or they do not know what they want to do upon graduation. Graduates' underestimate the number of work hours expected of them and overestimate the salary they expect to receive, especially those graduating without prior career-related work experiences. A few are incredibly "cocky."

Identifying and hiring minority, female, and disabled individuals (21) from a limited pool of applicants was challenging, reported some employers. A major goal of many businesses, industries, and governmental employers was greater diversity in their workforces, but campus recruiters experienced very poor representation of protected groups was experienced by campus recruiters.

The organizations' images, name recognition, and/or identities (17) are not well-known or well-polished among graduating students. This matter is related to the problem of keeping a positive image on campus when corporations are not in a high recruiting mode. Budget cuts, downsizing, hiring freezes, and generally poor economic performances by companies are extending the situation. Building an awareness among college students and establishing a reputation as an outstanding employer is challenging. Identifying applicants who know the organization and the organizations' work assignments is difficult. Also lacking among college graduates is knowledge of certain employer categories--the retailing industry as an example.

Another problem cited by employers was the competition for graduates at the top of the class (15). Many organizations want to attract top graduates, but matching their starting salary expectations is not always possible. In addition, scheduling and attracting greater numbers of interested graduating seniors remains a challenge and priority for a majority of employer representatives. Employers cited competition from markets with excessive salary ranges, adding to the challenge of attracting top candidates.

Many students are looking for a job (12) and interviewing for any available positions, rather than researching and identifying their career preferences and desires. Employers mentioned that reading company literature prior to campus interviews would help interviewees reach an understanding of career path options. Candidates are not well-prepared for interviews (5) on some campuses. Employers mentioned a quality orientation as possible remedy for this situation. In addition, students are sometimes not dressed professionally at job fairs or for campus interviews.

Graduating students not researching companies before interviewing (7) is another complaint of employers. Many students do not put forth the effort to seek this information. Students do not take time to study company literature sent to campuses prior to interviews, which might help them learn about the organization and its' available employment opportunities. Sometimes, placement offices do not make this information available to their students.

As an example of the employers' concerns, recruitment of new college graduates was a necessary function, but it is a time-consuming task, according to employers, requiring too much time for too few results.

Identifying candidates with "real-world work experiences" is a major focus of employers recruiting on college campus, declared respondents. Candidates with work experiences perform much better in campus interviews and on the job, according to employers (7). Too many new college graduates lack practical cooperative education or career-related job experiences.

Despite record numbers of graduating students, candidates with adequate grade point averages are lacking, reported recruiters. To avoid the stigma attached to low grades, employers stated that some falsification and/or otherwise misrepresentation of grades was a major concern of theirs. And particularly disturbing were recruits who were technically very competent, yet made spelling errors on their resumes. One employer with hiring authority for only college graduates at the 3.5 grade point average or higher found it difficult to recruit candidates meeting this criteria, and willing to accept the salaries offered by his/her organization.

Starting salary expectations of graduating students are unrealistic (10), stressed employers. Being able to offer competitive starting salaries was an issue with these employers. It was noted that salary requirements for some new college graduates were very high, too high for them to fully benefit the hiring organizations.

Limited numbers of graduates (3) are available in certain fields: marketing and sales-oriented graduates, civil engineering, business majors interested in the banking industry, electrical engineers, mechanical engineering, and graduates in most technical fields.

Attracting top students to certain geographical locations (14) is difficult. Quite often, according to surveyed employers, graduating students are not realistic about relocating where the jobs are, and graduates are unwilling to accept an organization's travel requirements. For some employers, the locations of job sites are not very attractive, assigned work for entry-level positions is not attractive, and encouraging top students to a headquarters geographical location is difficult.

Professional and effective placement services (7) are needed to make it easier for employers to recruit on college campuses. For instance, students with inappropriate backgrounds or visa status are not desired on employers' interviewing schedules or schedules are filled with students who are not interested nor qualified for the positions offered. Other commonly cited complaints include: inadequate interviewing accommodations, not available when needed, too large, too small, poorly ventilated, too hot, too cold, poorly arranged, etc. Other problems include no opportunity to arrange displays early, nor facilities for holding informational sessions with students, and students who do not show for interviews.

On those college campuses which will not permit pre-screening (2), it is difficult to achieve hiring goals for minorities, females, and high-demand academic majors. Time conflicts are a problem. A majority of colleges and universities schedule recruiting, career programs, job fairs, and other recruitment activities within the same timeframe.

When predicting your organization's hiring goals for new college graduates this year (1991-92), what were the most important factors considered in your calculations (retirements, new positions, anticipated vacancies, mergers, acquisitions, etc.)?

Observations: When predicting their organizations' hiring goals for new college graduates this year (1991-92), employers mentioned anticipated vacancies (164), changes in business projections (109), and current economic conditions (50) as the most important factors considered in their calculations.

Anticipated and/or existing vacancies (164) are usually very important when predicting needs for new personnel. Vacancies are caused by replacement needs, attrition, promotions, resignations, transfers, possible terminations, and retirements. Most serious among employer priorities at the present time are payroll considerations, since decreased personnel costs can quickly balance budgets. Attrition rates have lowered considerably, thus throwing off all prior calculations. However, according to employers, new blood in an organization is produced when new college graduates are hired. New talent is needed for building future leadership and profit margins in corporations. When attrition and retirements occur in organizations, personnel levels can only go so low before the work performance of departments will suffer. Numerous employers were reporting that their organizations have reached this critical level, but continuing poor business conditions will not permit them to return to their earlier hiring levels.

Increases, decreases, or general changes in total workforce are caused by changes in the business volume in most surveyed organizations (109). Potentials for additional hiring, although they are few this year, are caused by expansions of the workload, business recovery, new acquisitions, new business needs, plans for expansion, current or anticipated business increases, company growth, and sales profitability. On the decline in hiring are organizations with decreased revenue projections, smaller profits, and reductions in major business tasks, causing less profit, thus reduced recruiting. Other surveyed employers reported mergers, downsizing, modified or full hiring freezes, major restructuring changes and possible layoffs due to poor business conditions. Most of the employers were looking forward to the end of the recession, no more wars, increases in consumer spending, a return to profitability, and future business growth. The return of financial health to organizations would support long-term gains in college recruiting, but most surveyed employers were not optimistic that this business outlook would prevail in 1991-92.

The current economic climate and recession (50) are seriously jeopardizing stability of the job market for new college graduates, according to surveyed employers. The questions facing these employers were: Is the economy going to take another dip, stay at its present level, or rebound? What impact will current economic conditions have on the general, long-term financial health of their organizations? In answer to these questions, employers are generally expecting continued economic hardship.

**What do you foresee as signs of change in the general employment market for new college graduates this year (1991-92)?**

**Observations:** When predicting signs of change in the general employment market for new college graduates this year (1991-92), surveyed employers expected another difficult year (79). Obviously the economy has affected most companies' abilities to add new and/or fill existing positions. Dramatic increases in business volume cannot be expected this year.

**Fewer job openings**, reduced numbers of job offers per graduate, and a tougher market are expected by many employers (92). Although some experts have indicated that we are coming out of the recession, many sectors have not experienced an upswing. Competition will continue to increase for new college graduates seeking employment with automobile manufacturers and suppliers, aerospace and defense contractors, electronics, sales and service industries, and banking and finance. Less hiring can be expected by major corporations due to a shift to out-sourcing and more hiring can be expected by major suppliers due to this trend. Jobs are being covered by fewer people, so the general workforce is becoming very lean and sufficient. In fact, some employers (7) have reduced their workforces so seriously that the need for new personnel is beginning to outweigh other considerations such as fiscal restraint, etc.

**A continuation of the current recession** will hold down growth and hiring, so no changes are predicted by many employers (28). These employers predict a continuing sluggish period with a stable, but depressed, economy. The job market this year will remain very tight, so more graduating students may be continuing for advanced degrees. A continuing decrease in employment opportunities at the entry level is expected in almost all market segments. It will be hard for graduates to find a job. A greater percentage of new college graduates will probably be unemployed.

**Competition for technical degree graduates will likely be high**, but not as high as a year or two years ago. A healthy job market with good growth opportunities (11) is predicted for the areas of engineering, computer science, and nursing/ health care services majors.

**Fewer opportunities for liberal arts and general business administration majors** (9) are expected. A continuing decrease in demand for MBA's (especially those with limited or no experience), fine arts, finance, and economics majors is anticipated.

**Government employment will be viewed more favorably** (8) by new college graduates during this economic downturn, since some government agencies will have job openings. But job opportunities with government agencies are directly dependent upon defense spending, which has decreased, and government deficits which are holding down hiring in other sectors of the government payroll.

**Less campus recruiting is contemplated** (6). Consequently companies visiting college campuses will be more selective in their hiring criteria. Companies will only be hiring the best. Employers reported substantially more resumes received directly from new graduates than in past years. According to these employers, it would be very easy to recruit solely through this method.

The best students will continue to have multiple job options (16). As one employer expressed the situation, a stronger competition among employers can be expected for the "cream of the crop" students. Above average, hard-working students who have planned for life after graduation will obtain jobs. The employment market is always strong for well-motivated students who are well-rounded, have earned above-average grades, and work hard at finding a job. Those who have not prepared for transition from college to career will not find the positions they want.

Applicants with advanced degrees and experience are creating serious competition, so fewer hires among new bachelor's degree graduates can be anticipated (16). As layoffs continue and jobs are eliminated, graduates will find themselves competing against more experienced personnel for management and executive positions. Surveyed employers report that individuals with several years of experience and higher levels of educational background are accepting jobs at lower pay levels. Many unemployed professionals are applying for entry level jobs, so companies can hire experienced people at entry-level salaries.

Because of more competition among the college graduate population (5), students will have to be better prepared by getting good grades, working in cooperative education programs or internship positions, and being better able to "sell themselves." Having a college degree is not enough anymore to land job opportunities. Competition is increasing and positions are more highly skilled and specialized, requiring excellent communication abilities. Organizations hiring new college graduates will be very selective with higher standards and more explicit specifications.

Graduates with prior career-related work experiences (6) will be more desirable since there are fewer resources (time and money) to train new raw talents. Some employers are changing their recruitment strategies to hire more experienced individuals, and this will dramatically reduce their campus presence.

Starting salaries are expected to stay consistent with last year (3), rising very little. Candidates are accepting lower salaries due to the difficult job market, and some candidates are possibly interviewing for positions due to availability and not necessarily because of a definite interest in the field.

What change is anticipated this year (1991-92) in starting salaries for new college graduates hired by your organization with the following academic majors and degree levels? Responses are listed by ACADEMIC MAJORS.

Academic Majors	Anticipated Salary Change	
	Number of Employers	Per-cent
Agriculture	45	1.8%
Natural Resources	33	1.4%
Accounting	146	2.3%
Financial Admin	83	1.7%
General Bus Admin	89	2.5%
Hotel Rest Inst Mgt	38	1.9%
Marketing	82	1.3%
Personnel Admin	81	2.4%
Advertising	39	0.9%
Communications	42	1.5%
Journalism	38	1.3%
Telecommunications	38	1.1%
Education	41	1.8%
Chemical Engr	78	3.0%
Civil Engr	78	2.4%
Computer Science	109	3.0%
Electrical Engr	122	2.6%
Industrial Engr	75	2.0%
Mechanical Engr	117	3.5%
Human Ecol/Home Economics	33	1.5%
Liberal Arts/Humanities	59	1.7%
Chemistry	55	2.2%
Geology	30	1.1%
Mathematics	44	1.7%
Physics	46	1.7%
Nursing	41	2.0%
Retailing	33	0.9%
Social Sciences	44	1.4%

Observations: This table represents the starting salary increases expected by employers who will be hiring the academic majors listed. Starting salary offers for new bachelor's degree graduates are expected to vary substantially between academic majors.

Highest among anticipated increases for this year (1991-92) will be mechanical engineering (3.5%); chemical engineering (3.0%); computer science (3.0%); and electrical engineering (2.6%).

Increases between 1.5% and 2.5% are expected this year for personnel administration (2.5%); civil engineering (2.4%); general business administration (2.4%); accounting (2.3%); chemistry (2.2%); education (2.1%); nursing (2.0%); industrial engineering (2.0%); hotel, restaurant, and institutional management (1.8%); agriculture (1.8%); mathematics (1.7%); financial administration (1.7%); physics (1.7%); liberal arts/humanities (1.7%); and human ecology/home economics (1.5%).

Starting salary increases of less than 1.5% are expected for telecommunications (1.4%); natural resources (1.4%); communications (1.4%); marketing/sales (1.4%); social science (1.4%); journalism (1.3%); advertising (1.2%); geology (1.1%); and retailing (0.9%).

Types of Graduates	Anticipated Salary Change	
	Number of Employers	Per-cent
Women Graduates with B.A.	192	2.3%
Minority Graduates with B.A.	172	2.4%
Handicapper Graduates with B.A.	143	3.1%
Master Graduates	283	0.6%
MBA Graduates	257	-0.0%
Doctoral Graduates	187	-0.0%

Other categories of graduates expecting starting salary increases are: women graduates with bachelor's degrees (2.3%); minority graduates with bachelor's degrees (2.4%); handicapped graduates with bachelor's degrees (3.1%); and master's degree graduates (0.6%). No change is expected for MBA graduates and doctoral degree graduates.

**ESTIMATED STARTING SALARIES  
FOR NEW COLLEGE GRADUATES  
of 1991-92**

**Bachelor's Degree Graduates**

<b><u>Academic Majors</u></b>	<b><u>Estimated %Change</u></b>	<b><u>Estimated Starting Salary for 1991-92*</u></b>
Chemical Engineering	3.00%	\$38,394
Mechanical Engineering	3.50%	\$35,555
Electrical Engineering	2.60%	\$34,917
Industrial Engineering	2.00%	\$32,774
Computer Science	3.00%	\$32,106
Civil Engineering	2.40%	\$29,824
Physics	1.70%	\$29,724
Nursing	2.00%	\$29,159
Geology	1.10%	\$28,776
Chemistry	2.20%	\$28,105
Mathematics	1.70%	\$27,835
Accounting	2.30%	\$27,195
Marketing/Sales	1.30%	\$26,124
General Business Admin.	2.50%	\$25,653
Financial Administration	1.70%	\$25,382
Education	1.80%	\$23,402
Personnel Administration	2.40%	\$22,953
Agriculture	1.80%	\$22,702
Hotel, Rest. Inst. Mgt.	1.90%	\$22,570
Telecommunications	1.10%	\$22,434
Advertising	0.90%	\$22,194
Communications	1.50%	\$22,107
Natural Resources	1.40%	\$21,776
Social Science	1.40%	\$21,674
Liberal Arts/Arts & Letters	1.70%	\$21,667
Human Ecology/Home Economics	1.50%	\$20,658
Journalism	1.30%	\$20,079
Retailing	0.90%	\$20,030
<b><u>Averages for Graduate Degree</u></b>		
MBA	0.00%	\$36,175
Masters	0.60%	\$33,660
Ph.D.	0.00%	\$38,068

\*Source: When calculating estimated starting salary averages for 1991-92, average annual starting salaries from 1990-91 were used from the Collegiate Employment Research Institute. 1991. Salary Report 1990-91. East Lansing, Michigan: Career Development and Placement Services, Michigan State University, and the College Placement Council's Salary Survey for 1990-91, September 1991. Bethlehem, PA.: College Placement Council, Inc.

Observations: Highest among starting salaries this year for new college graduates at the bachelor's degree level are chemical engineering (\$38,394), mechanical engineering (\$35,555), electrical engineering (\$34,917), industrial engineering (\$32,774), and computer science (\$32,106). The greatest increases in starting salary offers this year are for mechanical engineering (3.5%), chemical engineering (3.0%), computer science (3.0%), electrical engineering (2.6%), general business administration (2.5%), civil engineering (2.4%), personnel administration (2.4%), and accounting (2.3%).

How many campuses did your organization visit for recruiting last year (1990-91), and how many campuses does your organization expect to visit this year (1991-92)? Responses are listed by **EMPLOYER CATEGORY**.

Campus Visits	Change from Last Year
	Percent
Employer Type	
Accounting	-5.8
Aerospace	-14.0
Agribusiness	3.6
Automotive	-23.8
Banking, Finance	-78.5
Chemicals	-3.1
Communication	-7.4
Construction	-9.4
Conglomerates	-48.8
Electronics	-5.8
Research, Consulting & Prof. Svcs.	-4.7
Food Processing	-49.4
Packaging	25.0
Government	-11.1
Hospitals	6.4
Hotels Motels	2.0
Wood Products	5.9
Merchandising	-13.1
Metals	-19.6
Petroleum	-13.3
Public Utilities	-2.8
Volunteer Org.	28.6
Textiles	-7.0
Tire & Rubber	0.0
Overall Total	-27.7

Observations: Employers responding to this year's survey expected a substantial decrease in number of campuses visited (-27.7%). Last year, employers had expected to decrease campuses visited by 4.9%. A year earlier, a slight increase was expected (0.7%).

Increases in campuses visits are expected from social service, religious, and volunteer organizations (28.6%); glass, packaging, and allied products (25.0%); hospitals and health care services (6.4%); lumber, wood products, and furniture manufacturers (5.9%); agribusiness (3.6%); and hotels, motels, restaurants, and recreational facilities (2.0%).

No change is expected in campuses visited by tire & rubber companies.

Those organizations expecting decreases in the number of campuses visited are public utilities including transportation (-2.8%); chemicals, drugs, and allied products (-3.1%); engineering, research, consulting, and other professional services (-4.7%); accounting firms (-5.8%); electronics, computers, and electrical equipment manufacturers (-5.8%); textiles, home furnishings, and apparel manufacturers (-7.0%); communications and telecommunications including telephones and newspapers (-7.4%); construction and building contractors (-9.4%); governmental administration and the military including federal, state, and local levels (-11.1%); merchandising and retailing (-13.1%); petroleum and allied products (-13.3%); aerospace and components (-14.0%); metals and metal products (-19.6%); automotive and mechanical equipment (-23.8%); diversified conglomerates (-48.8%); food and beverage processing (-49.4%); and banking, finance, and insurance (-78.5%).

How many total interviews were arranged by your organization when recruiting last year (1990-91) on college campuses, and how many total interviews does your organization expect this year (1991-92)? Responses are listed by EMPLOYER CATEGORY.

Interviews	Change from Last Year
	Percent
Employer Type	
Accounting	-0.3
Aerospace	-30.8
Agribusiness	7.1
Automotive	-32.3
Banking, Finance	-16.5
Chemicals	-61.3
Communication	-92.2
Construction	21.3
Conglomerates	-48.5
Electronics	-19.7
Research, Consulting & Prof. Svcs.	1.4
Food Processing	-52.7
Packaging	8.5
Government	-3.6
Hospitals	-8.2
Hotels Motels	-5.4
Wood Products	35.5
Merchandising	-4.7
Metals	-22.1
Petroleum	-38.3
Public Utilities	-10.5
Volunteer Org.	44.3
Textiles	0.6
Tire & Rubber	0.0
Overall Total	-16.7

Observations: According to surveyed employers, fewer total interviews (-16.7%) are expected on college campuses this year (1991-92). This compares to an anticipated increase of 1.4% last year.

The greatest increases in total interviews are expected by social service, religious, and volunteer organizations (44.3%); lumber, wood products, and furniture manufacturers (35.5%); construction and building contractors (21.3%); glass, packaging, and allied products (8.5%); agribusiness (7.1%); engineering, research, consulting, and other professional services (1.4%); and textiles, home furnishings, and apparel manufacturers (0.6%);

No change is expected in total interviews by tire, rubber, and allied products.

Those organizations expecting decreases in total interviews on college campuses are accounting firms (-0.3%); governmental administration and the military including federal, state, and local levels (-3.6%); merchandising and retailing (-4.7%); hotels, motels, restaurants, and recreational facilities (-5.4%); hospitals and health care services (-8.2%); public utilities including transportation (-10.5%); banking, finance, and insurance (-16.5%); electronics, computers, and electrical equipment manufacturers (-19.7%); metals and metal products (-22.1%); aerospace and components (-30.8%); automotive and mechanical equipment (-32.3%); petroleum and allied products (-38.3%); diversified conglomerates (-48.5%); food and beverage processing (-52.7%); chemicals, drugs, and allied products (-61.3%); and communications and telecommunications including telephones and newspapers (-92.2%).

What percentage of new college graduates interviewed by your organization on college campuses last year (1991-92) were hired? Responses are listed by EMPLOYER CATEGORY.

Percent of Interviewees Hired Last Year	Technical Graduates Hired		Non-technical Graduates Hired	
	Number of Employers	Percent	Number of Employers	Percent
Employer Types				
Accounting	3	6.7	9	30.2
Aerospace	12	15.9	10	14.6
Agribusiness	5	17.8	5	11.8
Automotive	7	20.9	5	6.0
Banking, Finance	7	1.4	19	29.2
Chemicals	10	23.2	8	11.0
Communication	5	22.2	8	11.3
Construction	5	4.8	3	3.3
Conglomerates	0	.	0	.
Electronics	28	24.1	15	4.1
Research, Consulting & Prof. Svcs.	27	15.7	21	12.2
Food Processing	4	22.8	2	11.0
Packaging	2	42.5	1	20.0
Government	30	20.5	26	13.3
Hospitals	5	33.0	4	0.0
Hotels Motels	5	0.0	5	40.0
Wood Products	2	0.5	1	0.0
Merchandising	7	23.3	18	22.3
Metals	8	5.4	8	9.5
Petroleum	6	3.7	5	2.2
Public Utilities	27	18.0	17	23.2
Volunteer Org.	2	0.0	3	4.0
Textiles	3	40.7	4	19.0
Tire & Rubber	1	10.0	1	0.0
Overall Totals	211	17.7	198	15.8

Observations: A measure of recruitment efficiency used by some organizations is interviews held per new hire obtained. For technical graduates interviewed by responding organizations on college campuses last year (1991-92), 17.7% were hired. Of non-technical graduates interviewed by responding organizations, 15.8% were hired.

Employer categories with the highest percentages of hires per campus interview for technical graduates were glass, packaging, and allied products (42.5%); textiles, home furnishings, and apparel manufacturers (40.7%); hospitals and health care services (33.0%); electronics, computers, and electrical equipment manufacturers (24.1%); merchandising and retailing (23.3%); chemicals, drugs, and allied products (23.2%); food and beverage processing (22.8%); communications and telecommunications including telephones and newspapers (22.2%); automotive and mechanical equipment (20.9%); governmental administration and the military including federal, state, and local levels (20.5%); and public utilities including transportation (18.0%).

When recruiting non-technical graduates, the employer categories with the highest percentages of hires per campus interview were hotels, motels, restaurants, and recreational facilities (40.0%); accounting firms (30.2%); banking, finance, and insurance (29.2%); public utilities including transportation (23.2%); merchandising and retailing (22.3%); glass, packaging, and allied products (20.0%); textiles, home furnishings, and apparel manufacturers (19.0%); aerospace and components (14.6%); governmental administration and the military including federal, state, and local levels (13.3%); and engineering, research, consulting, and other professional services (12.2%).

What factors are used by your organization when selecting colleges for recruitment activities?

Observations: When selecting college campuses for recruitment activities, surveyed employers reported several very important factors used by their organizations. Among them were size and enrollment at the institution, diversity of student population, past history of on-the-job experience with graduates, academic disciplines offered, faculty presence in the employers' organizations, and academic prestige of the institution.

Academic programs offered, disciplines prepared, and courses given (104) at selected colleges and universities are other criteria important to employers when identifying targets for their recruitment activities. Curriculum was mentioned repetitively. Academic specializations, technical areas of competence, requirements for employment experiences while attending college, job related study, degrees offered, faculty understanding of the business environment, availability of cooperative education and internship programs, and communication skills of graduates were also listed.

National reputation, prestige, and quality of an academic program, college, or university (94), stature, recognition, tradition, academic rigor, and scholastic rating all increase a college's high performance rating within an organization. Quality of students, academic achievement, academic excellence, accreditation, and grade point averages of graduates were cited as significant alternate measures of a college's potential for recruitment activities.

Geographical location and proximity of the college or university to an employer's facilities (84) were also referenced. Still other employers described this factor with convenience, expenses for recruiting trips, geographical flexibility of graduates, relocation expenses necessary, and enthusiasm of graduates for the employer.

Size and enrollment at a college or university (49) was certainly an important factor, since prospective employers are interested in diversity of the student population--minority/ ethnic enrollment and female attendance, and the availability of sufficient students graduating in specific academic majors is crucial in these times of tight budgets. Also on the employer's list of important factors were cost of attendance, percent of students on financial aid, backgrounds of students (work ethic, etc.), percent of population from the employers' areas attending the school, disabled people enrolled, and the total number of graduates expected.

Another factor used by employers was past history of proven successes (49), as demonstrated by capabilities of previous graduates. Quality of past performance, according to these employers, is measured by: retention, soundness of work performance, "fit" of graduates with corporate culture, match of academic programs with the company's development, and general work records of recent graduates hired.

Yield from previous recruitment activities (i.e. hires) (44) are quite important to employers as well. Potential yield from targeted academic majors or targeted populations, attracting the best graduates, offers extended and accepted, and expectations of previous graduates count toward a positive or

negative decision on campus recruitment activities. Requests from management, "Are we going to my alma mater?" receive attention from recruiters when planning their recruiting itineraries.

Faculty and researchers at an institution (12) can often also influence employer decisions on recruitment activities. According to employers, expertise or emphases of academic programs, professionalism of degree programs, relationships between current faculty members and corporate personnel, support from faculty, quality of faculty, preeminence of faculty, and continuing working relationships with local colleges and universities can sway employers' decisions.

Quality and professionalism of the placement office staff and operations (16) were included in the decisions of employers. These services were measured by cooperation with employers' preferences, utilization of placement offices by graduating students, numbers of women and minorities using the placement office, grade point averages of graduates using the placement office, strength of business school employee referrals (alumni), organization of the office operations, relationship of the placement office with employers, sponsorship of career fairs, and fees/costs for attending career fairs. Continuing the employers' list of desired services were ease of scheduling, assistance with recommending candidates rather than simply sharing a stack of resumes, staff availability, alumni placement services, and preselection procedures for interviewees.

What percentage of your organization's offers of employment extended last year (1990-91) to new college graduates were accepted? Responses are listed by EMPLOYER CATEGORY.

Percent of Offers Accepted Last Year	Technical Graduates Hired		Non-technical Graduates Hired	
	Number of Employers	Percent	Number of Employers	Percent
Employer Types				
Accounting	1	74.0	8	54.5
Aerospace	12	72.6	10	78.0
Agribusiness	3	30.7	3	25.0
Automotive	9	52.7	6	55.5
Banking, Finance	7	42.1	19	72.7
Chemicals	9	63.8	7	57.9
Communication	5	66.2	8	79.7
Construction	6	56.7	2	47.5
Conglomerates	1	90.0	1	100.0
Electronics	30	66.6	19	37.3
Research, Consulting & Prof. Svcs.	29	74.8	14	55.4
Food Processing	3	41.7	3	54.3
Packaging	2	40.0	3	39.7
Government	31	52.9	30	63.0
Hospitals	5	65.8	3	53.0
Hotels	3	0.0	7	80.0
Wood Products	3	66.7	2	50.0
Merchandising	6	51.3	15	69.1
Metals	9	80.0	7	72.7
Petroleum	7	69.9	5	70.6
Public Utilities	27	71.7	17	65.4
Volunteer Org.	1	0.0	4	55.0
Textiles	3	43.3	4	57.5
Tire & Rubber	1	90.0	1	100.0
Overall Totals	213	62.7	198	62.0

Observations: A very good measure of job market trends is the percentage of job offers accepted. Of offers extended to technical college graduates (those in engineering, computer science, or the natural sciences) during 1990-91, 62.7% were accepted, according to 213 surveyed employers who reported data. A higher acceptance rate most likely suggests either improved recruitment techniques, a more difficult job market for technical graduates, or better job opportunities because job applicants accept them at a higher rate.

Of job offers extended to non-technical graduates (those in business or the liberal arts) during 1990-91, 62.0% were accepted, according to 198 surveyed employers responding to this question. Acceptance rates for job offers varied considerably for various employer categories.

Employer categories with the highest acceptance rates for technical college graduates were diversified conglomerates (90.0%); tire, rubber, and allied products (90.0%); metals and metal products (80.0%); engineering, research, consulting, and other professional services (74.8%); accounting firms (74.0%); aerospace and components (72.6%); public utilities including transportation (71.7%); petroleum and allied products (69.9%); lumber, wood products, and furniture manufacturers (66.7%); electronics, computers, and electrical equipment manufacturers (66.6%); communications and telecommunications including telephones and newspapers (66.2%); hospitals and health care services (65.8%); and chemicals, drugs, and allied products (63.8%).

Continued . . .

Employer categories below the average acceptance for technical college graduates were construction and building contractors (56.7%); governmental administration and the military including federal, state, and local levels (52.9%); automotive and mechanical equipment (52.7%); merchandising and retailing (51.3%); textiles, home furnishings, and apparel manufacturers (43.3%); banking, finance, and insurance (42.1%); food and beverage processing (41.7%); glass, packaging, and allied products (40.0%); and agribusiness (30.7%).

Employer categories with the highest acceptance rates for non-technical college graduates were diversified conglomerates (100.0%); tire, rubber, and allied products (100.0%); hotels, motels, restaurants, and recreational facilities (80.0%); communications and telecommunications including telephones and newspapers (79.7%); aerospace and components (78.0%); banking, finance, and insurance (72.7%); metals and metal products (72.7%); petroleum and allied products (70.6%); merchandising and retailing (69.1%); public utilities including transportation (65.4%); and governmental administration and the military including federal, state, and local levels (63.0%).

Employer categories below the average acceptance for non-technical college graduates were chemicals, drugs, and allied products (57.9%); textiles, home furnishings, and apparel manufacturers (57.5%); automotive and mechanical equipment (55.5%); engineering, research, consulting, and other professional services (55.4%); social service, religious, and volunteer organizations (55.0%); accounting firms (54.5%); food and beverage processing (54.3%); hospitals and health care services (53.0%); lumber, wood products, and furniture manufacturers (50.0%); construction and building contractors (47.5%); glass, packaging, and allied products (39.7%); electronics, computers, and electrical equipment manufacturers (37.3%); and agribusiness (25.0%).

Are new college graduates realistic about their job expectations after graduation, and what could colleges and universities do to make new graduates more realistic? Responses are listed by EMPLOYER CATEGORY.

	Response Categories								Total Response		Total MEAN
	Usually		Sometimes		Seldom		Never		N	PCTN	
	N	PCTN	N	PCTN	N	PCTN	N	PCTN			
Job Expectations											
Realistic	113	33.3%	197	58.1%	25	7.3%	4	1.1%	339	100.0%	2.8

Observations: Of 339 employers responding, 29 organizations (8.4%) indicated that new college graduates are not realistic about their job expectations after graduation. As suggestions for improvement, surveyed employers recommended that colleges: teach their graduating students more patience, provide them with more realistic salary averages, discuss entry-level job duties with them, give them more practical work experiences, and inform them that a college degree is merely their ticket for proving themselves to an organization.

According to surveyed employers, too many new college graduates have unrealistic salary expectations (36) or are given false hopes about high starting salaries. Employers mentioned that starting salary averages are heavily dependent upon the geographical location of the first assignment and the job responsibilities of the position. Also, new graduates should realize that all new graduates do not command superstar salaries and immediate appointment to top-level management positions. It was suggested that more information about starting salary ranges for entry-level positions would help to alleviate this problem, and a reminder about the length of time required to advance to a top executive position in a large corporation would also be beneficial.

More exposure to practical and "real-world" work environments was encouraged, along with more practical coursework, to make new college graduates better prepared (34). Internships, cooperative education assignments, and summer employment options were requested. These experiences were mentioned as very good for providing realistic understanding and expectations about the first job after graduating from college. As curriculum changes, employers mentioned classes taught by professionals, not professors, for more realistic education of students.

Especially with current economic conditions, new graduates must work their way up the corporate ladder (17), putting in their time "like everyone else." A flattening of the pyramid in most corporations has occurred, so the rise to middle or even upper levels of management will be slower and tougher. Too often, graduating students think promotional opportunities are easily accessible. When first employed, new graduates are experiencing mostly "hands-on" learning and not doing much productive work.

Colleges should be more specific about entry-level job duties that college graduates can expect (15). For instance, management level positions are not normally available to entry-level candidates. More classes on job expectations were encouraged, or presentations by recent college graduates were recommended, so these recent graduates might discuss their experiences and paint a realistic picture for current students. Also cited as very good ideas were more panel discussions on these topics as well as an increase in career orientation days. emphasis on workplace job success factors might also be communicated: a strong work ethic, preparation of graduates to prove themselves, enjoying your work, and an overall explanation of the real world outside the college scene.

A college degree does not make the new graduate an expert, noted some respondents (10). Entry-level job duties and responsibilities are normally not glamorous. The new hire must still start in an entry level position and work their up the corporate ladder. Their degree is merely a stepping stone, not the ultimate answer. Entry level candidates should be aware that most learning of applications in the field occurs after college, not during, according to surveyed employers.

Academic and extracurricular activities should be utilized as examples of diverse student preparation and attainment of work-performance skills necessary for on-the-job success.

An emphasis should be placed on flexibility in planning, including travel as part of the entry-level job. Graduating students may not have as much flexibility in their careers and salary options as they expect. Small businesses might offer outstanding alternative career possibilities and/or benefits that are equivalent to a higher salary with an alternate employer.

Placement offices should hire retired managers from business, industry, or government to counsel students registered with their offices (15). More informational sessions might be given by prospective employers, so students fully understand the availability of job openings and employers' expectations.

How many new college graduates renege on offers of employment from your organization last year (1990-91), and if your organization renege on any offers of employment, how many graduates were involved?

Reneges on Offers of Employment	Graduates Reneging on Offers		Org. Reneging on Offers	
	Number of Employers	Total	Number of Employers	Total
Employer Types				
Accounting	7	22	8	0
Aerospace	13	14	13	13
Agribusiness	5	5	6	0
Automotive	6	8	8	0
Banking, Finance	23	37	23	0
Chemicals	7	6	9	0
Communication	9	2	10	0
Construction	6	3	6	0
Conglomerates	1	0	1	1
Electronics	27	8	29	1
Research, Consulting & Prof. Svcs.	32	44	33	1
Food Processing	7	53	7	0
Packaging	1	0	3	0
Government	39	105	45	7
Hospitals	9	29	9	1
Hotels Motels	9	2	9	0
Wood Products	4	0	4	0
Merchandising	20	63	21	3
Metals	11	4	11	4
Petroleum	7	5	7	0
Public Utilities	30	36	30	2
Volunteer Org.	4	4	4	0
Textiles	4	26	4	5
Tire & Rubber	1	0	1	0
Overall Totals	282	476	301	38

Observations: According to employers who reported graduating students renege on job offers, a total of 476 cases were cited. The largest numbers of renegees were reported by governmental administration and the military including federal, state, and local levels (105); merchandising and retailing (63); and food and beverage processing (53).

More conservative totals were reported by engineering, research, consulting, and other professional services (44); banking, finance, and insurance (37); public utilities including transportation (36); hospitals and health care services (29); textiles, home furnishings, and apparel manufacturers (26); accounting firms (22); aerospace and components (14); automotive and mechanical equipment (8); electronics, computers, and electrical equipment manufacturers (8); chemicals, drugs, and allied products (6); petroleum and allied products (5); agribusiness (5); metals and metal products (4); social service, religious, and volunteer organizations (4); and construction and building contractors (3).

The employer categories renege on the most job offers were aerospace and components (13); governmental administration and the military including federal, state, and local levels (7); textiles, home furnishings, and apparel manufacturers (5); metals and metal products (4); merchandising and retailing (3); public utilities including transportation (2); electronics, computers, and electrical equipment manufacturers (1); hospitals and health care services (1); engineering, research, consulting, and other professional services (1); and diversified conglomerates (1). When organizations renege on offers of employment, the general settlement terms with new college graduates were three months salary and the services of an outplacement firm.

What has been the impact of layoffs on hiring of new college graduates in your organization?

Observations: Among surveyed organizations, the impact of layoffs has been most notable in a curtailment or sharply reduced hiring of new college graduates (37). Downsizing of organizations has meant that openings are more often filled with internal candidates. College recruiting has been postponed for a year or more by some employers, and others have initiated freezes in hiring. This option is becoming more frequent when layoffs are planned or have been executed within the previous six to nine months. At the present time, payrolls of most organizations have been reduced to bare bones, so there are fewer positions available for trainees without experience.

Increased competition exists and fewer positions are available on the job market for new college graduates today (15), because of layoffs throughout the employment market. It is extremely competitive, since there are many applicants with experience and master's degrees available and willing to accept employment at entry-level salaries.

The reputation of organizations have been damaged when layoffs occurred (14). As an example, a retail outlet with store closings in some college towns have found it difficult to recruit new employees. Among other organizations that have not laid off any college graduates in several years, their recruitment programs are still feeling the impact from current students. The reputations of these industries for closings of plant and facilities are remembered and reported through advice from parents and faculty.

Layoffs are happening in many areas of organizations (11), especially for middle and upper managers, human resources personnel, and clerical staff. Among some employers of new college graduates, personnel have not been laid off, but when staff members have left, companies have not made an attempt to replace these individuals, preferring to consolidate job functions and/or responsibilities. In addition, there are fewer opportunities for upward mobility--positions have been eliminated as attrition continues. This affects employment opportunities for college graduates, since a lack of upward mobility causes a bottleneck at lower job levels.

Employers report that graduates often ask questions about layoffs (9). The potential for layoffs is causing graduates to be more concerned with job security and stability of their positions. To settle this fear of new hires, some employers are assuring them that they will not be included in any layoff plans, and are guaranteed employment, for an initial three or four years of employment.

Does your organization hire cooperative education students and interns with the idea of hiring them for permanent employment upon graduation? Responses are listed by EMPLOYER CATEGORY.

Employer Types	Permanent Jobs for Coops or Interns			
	Yes		No	
	Number of Employers	Percent	Number of Employers	Percent
Accounting	4	44.4%	5	55.5%
Aerospace	12	80.0%	3	20.0%
Agribusiness	5	71.4%	2	28.5%
Automotive	10	90.9%	1	9.0%
Banking, Finance	16	66.6%	8	33.3%
Chemicals	9	90.0%	1	10.0%
Communication	9	81.8%	2	18.1%
Construction	4	80.0%	1	20.0%
Conglomerates	1	100.0%	.	.
Electronics	31	79.4%	8	20.5%
Research, Consulting & Prof. Svcs.	20	58.8%	14	41.1%
Food Processing	7	100.0%	.	.
Packaging	2	50.0%	2	50.0%
Government	36	75.0%	12	25.0%
Hospitals	9	81.8%	2	18.1%
Hotels Motels	8	72.7%	3	27.2%
Wood Products	4	100.0%	.	.
Merchandising	17	65.3%	9	34.6%
Metals	9	90.0%	1	10.0%
Petroleum	7	100.0%	.	.
Public Utilities	25	78.1%	7	21.8%
Volunteer Org.	3	60.0%	2	40.0%
Textiles	2	50.0%	2	50.0%
Tire & Rubber	.	.	2	100.0%
Overall Totals	250	74.1%	87	25.8%

Observations: Of 337 employers responding to this question, 74.1% reported that their organizations select cooperative education students and interns with the idea of hiring them for permanent employment upon graduation.

The employer categories with the highest percentages expecting to hire cooperative education students and interns for full-time employment were petroleum and allied products (100.0%); diversified conglomerates (100.0%); lumber, wood products, and furniture manufacturers (100.0%); food and beverage processing (100.0%); automotive and mechanical equipment (90.9%); metals and metal products (90.0%); chemicals, drugs, and allied products (90.0%); communications and telecommunications including telephones and newspapers (81.8%); hospitals and health care services (81.8%); aerospace and components (80.0%); construction and building contractors (80.0%); electronics, computers, and electrical equipment manufacturers (79.4%); and public utilities including transportation (78.1%).

In the range of 50% to 75% were governmental administration and the military including federal, state, and local levels (75.0%); hotels, motels, restaurants, and recreational facilities (72.7%); agribusiness (71.4%); banking, finance, and insurance (66.6%); merchandising and retailing (65.3%); social service, religious, and volunteer organizations (60.0%); engineering, research, consulting, and other professional services (58.8%); glass, packaging, and allied products (50.0%); and textiles, home furnishings, and apparel manufacturers (50.0%).

Expecting very small percentages of their cooperative education students and interns to return for full-time employment were accounting firms (44.4%); and tire, rubber, and allied products (0.0%).

Continued . . .

According to surveyed employers, cooperative education and internship programs are the "way of the future." These programs are excellent sources of new hires (39), especially for attracting minority applicants and quality, loyal personnel. Full-time employment is not guaranteed, but organizations certainly use these programs to assess the capabilities of students for future employment prospects. Quite often, interns have the first opportunities to fill open positions. If employment opportunities are available at the time of graduation, interns who have performed satisfactorily are often given first priority among job applicants.

These programs are viewed as a nice "trial run" for both employers and students (20). These opportunities for employment hopefully show the merits of long-term employment (9). Although permanent employment after graduation may not be the only reason for these program, it is an added incentive. Employers view these programs as providing a valuable means of identifying candidates who have job-related qualifications that "best fit" their company's mission, values, and guiding principles. Many organizations have very successfully utilized this arrangement for recruitment of new hires. When graduates of these programs are hired for full-time positions, employers view this as a return on their investments. As another evidence of their success, retention rates for interns have been highest when compared to all sources of new hires.

Several of the surveyed employers (15) reported that their organizations did not have a cooperative education or internship program, but they were working to begin these programs, especially to improve minority hiring. These employers commented that they would like to develop their programs in the very near future. Among government agencies, high levels of security clearances were sometimes required, and for these assignments, the approximate time for getting approvals was nine months.

What job categories in your organization this year (1991-92) are experiencing the most growth in opportunities for new college graduates?

Observations: JOB CATEGORIES experiencing the most growth in opportunities for new college graduates, as reported by employers, are listed below in alphabetical order with frequencies of response noted after each:

Accountants (14)	Mechanical engineers (15)	Operations managers
Actuarial scientists	Metallurgical engineers (2)	Physical therapists (3)
Auditors (5)	Packaging engineers	Psychologist, clinical
Tax specialists	Petroleum engineers	Radiologists
Bank examiners	Plastics engineers	Rehabilitation counselors
Agricultural scientists	Process engineers	Research and development specialists (2)
Bridge designers	Project engineers (3)	Resource management specialists
Branch manager trainees (2)	Quality control engineers (2)	Respiratory therapists
Buyers	Software engineers (2)	Sales/marketing representatives (29)
Chemical analysts (BS, MS, & Ph.D.) (6)	Structural engineers	Technical sales representatives (5)
Computer scientists (32), computer information systems specialists, programmers, systems analysts, systems operators, operations supervisors	Environmental scientists	Sales management (3)
Customer services representatives (6)	Financial analysts (4)	Social workers-MSW
Credit analysts (3), collections specialists, credit managers	Forestry assistants	Speech and language therapists
Data processing technicians (6)	Geologists (5), Hydrogeologists	Statistical analysts (2), biostatisticians-Ph.D.
Engineers- All categories (31)	Horticultural specialists, lawn specialists	Toxicologists-Ph.D.
Chemical engineers (8)	Hotel, restaurant, and institutional management trainees (3)	Veterinarians (4), medical officers, and food inspectors
Civil engineers (8)	Insurance claims adjusters, underwriters (2)	Veterans claims examiners, benefits counselors, and loan specialists
Computer engineers (4)	Landscape architects	Wastewater treatment plant designers
Design engineers (2)	Management trainees (13), retail/merchandise manager trainees, store manager trainees, assistant store managers, department managers, product service managers	Water resources specialists
Electrical engineers (20)	Nurses (8)	
Electronic engineers (4)	Occupational therapists (2)	
Environmental engineers (3)	Operating room technicians	
Industrial engineers (5)		
Materials engineers		
Manufacturing engineers (3)		

What are the new and emerging occupations in your organization?

Observations: New and emerging occupations in organizations were reported. Responses received for OCCUPATIONS are listed below in alphabetical order with frequencies of response noted after each:

Air pollution control engineering	Computer training specialists (2)	Mechanical engineers
Biotechnology specialists	Electrical engineers	Nondestructive test engineering
Chemists	Electro-mechanical engineering (2)	Nurses- specialized (2)
Computer applications developers	Environmental quality/safety engineering (20), environmental positions	Packaging engineering
Computer aided design operators	Flying qualities engineering	Process engineering
Computer database designers (2), administrators	Foreign and domestic trade specialists	Project engineering
Computer desktop publishing specialists (4)	Fossil power plant engineering	Quality control/quality assurance engineering (5), total quality team
Computer engineering (7)	Geologists	Sales representatives (6), marketing representatives, specialty areas
Computer information systems specialists (5)	Graphics software engineering	Skin scientists
Computer operators (4), microcomputer operators	Health physicists	Technical writers
Computer process control engineering	Industrial engineers (2)	Thermal analysts
Computer programmers (4)	Industrial hygienists (2)	Toxic waste management specialists
Computer systems analysts (14)	Instrumentation and controls	Video specialists
	International sales	Visual database designers
	Laser research and development, laser optics engineering	
	Logistics specialists	
	Loss prevention (2), risk assessment specialists	
	Manufacturing engineering	

What positions in your organization are available in overseas locations for new college graduates?

Observations: Most employers (29) with available job opportunities in overseas locations require significant prior work experience before the candidate will be hired to fill an overseas or international position. Quite often, this experience is required within the organization before overseas assignments are offered.

Other employers (8) will only hire applicants for overseas positions from the local economy. For these positions, entry level staff are hired in the country with the openings, requiring citizenship of that country, and the individuals must be eligible to work without time limits (i.e. permanent work visas are required).

Responses received from surveyed employers of POSITIONS available in overseas locations for new college graduates are listed below in alphabetical order with frequencies of response noted after each:

Chemistry- Ph.D.

Engineers (3), electrical engineers, computer engineers

Insurance underwriters, claims representatives, sales associates

Management trainees (4), business managers (2)

Marketing associates (4), international sales engineers, technical sales representatives, and technical services representatives

Reporters (2)

Research and development engineers

Sales representatives (4)

Veterinary medical officers

What changes in recruitment practices have you experienced during the last two years in your organization?

**Observations:** During the last two years, several changes in recruitment practices were reported by surveyed employers. First on the employers' list of changes were significant budget limitations (19). With fewer dollars for campus visits, human resources administrators were more cost conscious, so cutbacks were cited in numbers of recruiting activities and colleges visited. Also noted were reductions of approved sources, critical reviews of campuses visited, decreases in schools contacted, and more concentration at local and regional colleges.

Serious attempts have been made to hire new employees from the local areas to reduce relocation costs. Also experienced was reduced hiring at middle- and senior-levels of management, especially in human resources offices, to help reduce costs.

Hiring of fewer graduates (23), back to barebones minimums in hiring, have been experiences. An appreciable reduction or suspension of recruitment activities, downsizing of lists for campus visits, and reduced quotas for entry level personnel were reported. Happening with these changes have been reductions in recruiting staffs, elimination or cessation of recruiting, more graduates coming to the employers' personnel offices, and more recruiting very locally. In some organizations, on-site recruiting for direct hire has almost replaced use of personnel office waiting lists.

More selectivity and higher standards from employers (15) as well as increased competition among new graduates were mentioned. Experienced with this was additional focus and heavier emphasis on higher return institutions, broader based searches, fewer schools on recruitment circuits, and graduates becoming increasingly more flexible in regards to preferred training locations and starting dates. Employers were also looking for greater levels of technical expertise, searching more by computer rather than campus visits, limiting campus visits to colleges with specific fields of study, and limiting recruiting visits on campuses for only one discipline. Graduates are scrutinized with stricter reference checks, more drug and aptitude testing by employers, and a high priority to hire only the top students.

Pre-interview information presentations have been designed and arranged by employers to assist with the self-selection of graduating students for job openings. During these sessions, requirements for high grade point averages and prior work experiences are discussed.

Earlier recruiting of students (2) has been primarily focused in recent years on minorities and women applicants. Those with one to two years of school remaining prior to graduation are the intended audience. If employers can lure these students during their sophomore or junior years into summer employment, internships, or other work-experience programs, they believe they can get them after graduation too.

A continuing rise in the acceptance rate has been experienced. According to one employer, acceptances of job offers have risen as follows: 60% in 1989, 72% in 1990, and 80% in 1991. With this progression in the acceptance rate, employers have become much more intense in their selection procedures.

An increased involvement of line and staff personnel in recruitment activities has been reported, rather than only recruitment by human resources staff, since personnel in the college relations offices have been decreased or eliminated as part of budget reduction programs. Also, employers are using more recent graduates to give "testimonials" and fewer are using senior management personnel for recruiting activities.

More targeted and intense college recruitment (25) is occurring. Employers are placing greater emphasis on building long-term, productive relationships on college campuses. Marginal or non-existent college relations programs are developing recruitment brochures, exhibits, and display boards; becoming involved in college workshops, seminars, career days, and job fairs; and preparing recruitment videos. Becoming more important to employers are name recognition earlier in the recruitment process, more visibility on campus, additional campus exposure, attendance at more career fairs, and less one-on-one interviewing on campus. Accordingly, expectations are on personnel staffs to increase frontend development, causing more training for recruiters.

Aggressive efforts are expected to meet EEO/affirmative action goals for minorities and women (11). A heavier concentration of effort has been placed on more active targeting of protected classes, interviewing at minority campuses, and increased engineering recruitment.

Selective utilization of regional career fairs (11), such as the Michigan Collegiate Job Fair and the Careers '92 Recruitment Conference, are building better networks with professional associations. The emphases of these programs are on marketing and advertising efforts to get students' interests. Employers accessing these fairs have experienced a need to reemphasize their presence on college campuses. Career fairs and publications are included on campuses where interviews alone were once enough. Increased levels of advertisement have been experienced by student newspapers to support this change.

Do you feel the affirmative action/ equal employment opportunity programs in your organization have been effective? Responses are listed by EMPLOYER CATEGORY.

Employer Types	Effective Affirmative Action Programs			
	Yes		No	
	Number of Employers	Percent	Number of Employers	Percent
Accounting	5	100.0%	.	.
Aerospace	12	85.7%	2	14.2%
Agribusiness	6	85.7%	1	14.2%
Automotive	8	100.0%	.	.
Banking, Finance	22	91.6%	2	8.3%
Chemicals	10	100.0%	.	.
Communication	7	87.5%	1	12.5%
Construction	2	33.3%	4	66.6%
Conglomerates	1	100.0%	.	.
Electronics	29	87.8%	4	12.1%
Research, Consulting & Prof. Svcs.	26	81.2%	6	18.7%
Food Processing	4	80.0%	1	20.0%
Packaging	3	100.0%	.	.
Government	43	87.7%	6	12.2%
Hospitals	7	87.5%	1	12.5%
Hotels Motels	5	71.4%	2	28.5%
Wood Products	3	75.0%	1	25.0%
Merchandising	16	69.5%	7	30.4%
Metals	8	88.8%	1	11.1%
Petroleum	3	50.0%	3	50.0%
Public Utilities	24	85.7%	4	14.2%
Volunteer Org.	5	100.0%	.	.
Textiles	1	50.0%	1	50.0%
Tire & Rubber	2	100.0%	.	.
Overall Totals	252	84.2%	47	15.7%

Observations: Of 299 employers responding, 84.2% felt the affirmative action/ equal employment opportunity programs in their organizations have been effective.

The highest percentage of employers reporting effective AA/EEO programs were accounting (100.0%); diversified conglomerates (100.0%); automotive and mechanical equipment (100.0%); chemicals, drugs, and allied products (100.0%); glass, packaging, and allied products (100.0%); tire, rubber, and allied products (100.0%); and social service, religious, and volunteer organizations (100.0%).

Reporting percentages in the range of 75% to 99% were banking, finance, and insurance (91.6%); metals and metal products (88.8%); electronics, computers, and electrical equipment manufacturers (87.8%); governmental administration and the military including federal, state, and local levels (87.7%); hospitals and health care services (87.5%); communications and telecommunications including telephones and newspapers (87.5%); aerospace and components (85.7%); agribusiness (85.7%); public utilities including transportation (85.7%); engineering, research, consulting, and other professional services (81.2%); food and beverage processing (80.0%); and lumber, wood products, and furniture manufacturers (75.0%).

The employer categories with less than 75% reporting effective AA/EEO programs were hotels, motels, restaurants, and recreational facilities (71.4%); merchandising and retailing (69.5%); petroleum and allied products (50.0%); textiles, home furnishings, and apparel manufacturers (50.0%); and construction and building contractors (33.3%).

Continued . . .

The affirmative action/ equal employment opportunity programs in surveyed organizations have generally been effective, according to most employers responding, but numerous employers felt their programs could be more effective (24). These employers reported that their EEO/AA programs were not working as well as they would like. Female and minority applicants are at increased levels, but more emphasis could be placed on continuing improvement and making further progress toward hiring goals. According to these employers, some areas of recruitment have been very effective (i.e. women, Hispanics) and other areas less effective (Black/African-Americans). As evidence of recruitment goals, some employers are reporting that 70% of their hires are minorities and/or women.

Attitudes have changed and very good advances have been made (9) by women and minorities in surveyed organizations. Occasionally lacking is a management commitment, but there have been improvements in EEO/AA emphasis from management over the past few years. Nevertheless, there is need to continue to push for more women and minorities in the workplace. Continuing education is needed to opened doors and minds. Some managers still need to be told about the importance of EEO/AA programs. And recruiters must consciously keep EEO/AA goals in mind as they recruit.

At the current time, enrollments of women and minorities in engineering (12) are too limited to meet hiring goals. There is generally a lack of technically trained talent, and finding enough viable sources of applicants is difficult.

Attracting minorities has been difficult (7). Recruitment efforts have not been as organized or as focused as they should be to be effective. Another factor is geographical location, which is sometimes a disadvantage for some employers. To attract applicants, some companies are paying premium salaries, but others limit payment of higher salaries except for engineers. An increased emphasis has been placed on recruitment at colleges with good representations of women, people of color, and people who are differently abled.

For those new to the college recruitment scene, name recognition takes several years. For these organizations, a greater awareness and substantial participation (3) with university minority programs is necessary. Also, more networking is necessary to increase the flow of candidates. According to surveyed employers, a concerted effort has been extended to hire minority and women applicants for professional positions.

Retention of minorities and women has been difficult (7) due to the demand on a limited supply, reported employers. To help reduce attrition, additional cooperation is needed among employers and increased contacts are needed on college campuses and in university departments (i.e. minority engineering organizations, etc.).

What was the estimated average cost of training a new college graduate in your organization last year (include any related costs), and on the average, approximately how many hours of training per week (excluding on-the-job training) will new college hires receive during the initial six (6) months in your organization? Responses are listed by **EMPLOYER CATEGORY.**

Employer Types	Training Cost Per New College Hire		Training Per Week Per New College Hire	
	Number of Employers	Average	Number of Employers	Hours
Accounting	5	\$3,360	7	3.7
Aerospace	3	\$2,567	5	5.6
Agribusiness	4	\$11,200	6	17.0
Automotive	3	\$21,667	3	8.0
Banking, Finance	13	\$20,002	19	16.1
Chemicals	4	\$31,500	5	12.0
Communication	6	\$10,417	7	25.1
Construction	2	\$15,000	4	10.0
Conglomerates	0	.	0	.
Electronics	15	\$14,833	22	17.2
Research, Consulting & Prof. Svcs.	16	\$9,672	19	15.9
Food Processing	1	\$5,000	3	18.3
Packaging	3	\$14,081	3	11.3
Government	25	\$11,694	35	17.5
Hospitals	6	\$3,195	6	29.2
Hotels Motels	7	\$8,457	6	34.5
Wood Products	1	\$0	3	14.7
Merchandising	12	\$5,367	20	15.3
Metals	2	\$9,500	6	9.5
Petroleum	2	\$5,100	4	6.7
Public Utilities	11	\$7,373	16	14.6
Volunteer Org.	3	\$2,667	3	7.0
Textiles	3	\$20,667	4	21.3
Tire & Rubber	0	.	1	1.0
<b>Overall Totals</b>	<b>147</b>	<b>\$11,243</b>	<b>207</b>	<b>15.7</b>

**Observations:** According to surveyed employers, the approximate cost for training a new college graduate last year (including any related costs) was \$11,131. A total of 145 employers reported data for this analysis.

Employer categories reporting the highest costs for training were chemicals, drugs, and allied products (\$31,500); automotive and mechanical equipment (\$21,667); textiles, home furnishings, and apparel manufacturers (\$20,667); and banking, finance, and insurance (\$20,002).

Reporting costs in the \$9,500 to \$15,000 range were construction and building contractors (\$15,000); electronics, computers, and electrical equipment manufacturers (\$14,833); glass, packaging, and allied products (\$14,081); governmental administration and the military including federal, state, and local levels (\$11,694); agribusiness (\$11,200); communications and telecommunications including telephones and newspapers (\$10,417); engineering, research, consulting, and other professional services (\$9,672); and metals and metal products (\$9,500).

Costs of less than \$8,500 per new trainee were reported by hotels, motels, restaurants, and recreational facilities (\$8,457); public utilities including transportation (\$7,373); merchandising and retailing (\$5,367); petroleum and allied products (\$5,100); food and beverage processing (\$5,000); accounting firms (\$3,360); hospitals and health care services (\$3,195); social service, religious, and volunteer organizations (\$2,667); and aerospace and components (\$2,567).

Continued . . .

When reporting hours of training per week received by new college hires during the initial six (6) months in their organizations, employer categories with the greatest quantities, more than 20 hours per week on training, included hotels, motels, restaurants, and recreational facilities (34.5); communications and telecommunications including telephones and newspapers (25.1); and textiles, home furnishings, and apparel manufacturers (21.3).

Organizations reporting 10 to 20 hours per week in training during the initial six (6) months in their organizations were hospitals and health care services (20.2); food and beverage processing (18.3); governmental administration and the military including federal, state, and local levels (17.5); electronics, computers, and electrical equipment manufacturers (17.2); agribusiness (17.0); banking, finance, and insurance (16.1); engineering, research, consulting, and other professional services (15.9); merchandising and retailing (15.3); lumber, wood products, and furniture manufacturers (14.7); public utilities including transportation (14.6); chemicals, drugs, and allied products (12.0); glass, packaging, and allied products (11.3); and construction and building contractors (10.0).

Spending less than 10 hours per week on training during the initial six (6) months in their organizations were metals and metal products (9.5); automotive and mechanical equipment (8.0); social service, religious, and volunteer organizations (7.0); petroleum and allied products (6.7); aerospace and components (5.6); accounting firms (3.7); and tire, rubber, and allied products (1.0).

Based upon your experiences, which criteria should be used by college students when preparing for a career today?

Observations: When referencing their experiences during recruitment and hiring of new college graduates and recommending preparation needed for careers today, surveyed employers revealed that college students should use several selection criteria. Among those suggested were a serious analysis of personal interests, employment outlook data, financial and job security information, a review of personal aptitudes and abilities, academic areas of expertise, and prior work experiences.

Most important, and more significant than anything else, according to surveyed employers, was a genuine interest in an occupation (63). To achieve job satisfaction, individuals must like the work they are performing. Those who achieve the best results for organizations are working on assignments they enjoy. Those who do not enjoy their work will not succeed at it. So, employers suggest to students: find within yourself a "core" set of skills (i.e. interpersonal, analytical, cognitive, etc.) that you enjoy doing and then concentrate on applying those skills within different work situations. Thus, an analysis of likes and dislikes, preferences, desires, challenges, genuine interest, commitments, and true joys are critical to achieving this understanding. Personal and vocational interest inventories, values clarification exercises, and creative interest surveys can help. The bottom line is: college students should learn their true interests and seek commitment to an occupation that appeals to them. If a career excites them, and it has relatedness to their professional goals, a match will occur. This assessment of personal strengths ought to be included in any decisions regarding career alternatives.

Forecasts of occupational outlook--both current and future (43), are also important when preparing for a career. If job market forecasts suggest limited growth potential for an occupation, then this information should be factored into the final career choice. Collect as many facts as possible about the industries/occupations that interest you, and then make a sound choice of careers. A list of alternative career options would also be helpful. Seek realistic information on the job market and the availability of positions for graduates in an academic major before choosing it. Although this is not the sole criteria for a choice of occupations, it is very important for future happiness and employment.

Aptitudes, innate skills and abilities, and talents (32) were emphasized. Some college students have excellent writing and communication skills, computer abilities, problem-solving expertise, organizational competencies, and/or leadership qualities. Choosing a career that values broad experiences and emphasizes an individual's strongest capabilities is desirable. Employers encouraged college students to develop their own areas of expertise and interests. Development of interpersonal abilities, self-confidence, initiative, motivation, and positive energy are required for maximum job performance.

Be versatile, adaptable, and flexible (27), advised employers, when initially entering one's career path. Develop more than one career focus so you can make a transition to any new opportunities as they become available. A broad-based education, with preparation for flexibility, and moving between employers was prescribed. An occupation that provides opportunity for learning and contributing is valued. Those college graduates open to geographical mobility will fare better in the job search.

Potential financial earnings and job security (21) should figure into preparation for a career. Regardless of current economic conditions, competitive salaries, permanency of the career field, earnings objectives, salary requirements, stability of the occupation, and future job security are important. It was recommended by surveyed employers that college students choose an academic major that provides diversity of assigned tasks, earning sufficient to satisfy their personal needs and expectations, and offering good benefits--insurance, tuition reimbursement, etc.

Independently research occupations that interest you (17) and learn as much as you can about them. Do your homework. Personal knowledge and experience in areas of interest are necessary. There are significant differences between thinking you like something and proving it through work experiences. Students should not rely solely upon the experiences of friends and professors. Roleplaying, talking to alumni, conducting informational interviews, seeking the history of layoffs in an occupation, and talking to professionals about realistic salaries and career expectations are a must. Evaluate the data personally. Visit companies and ask questions. Become knowledgeable about occupations. Know your fields of interest and become aware of the pitfalls of entering an occupation. Thoroughly understand the work environment.

Earn a good academic record, and develop a well-rounded personality. Do your best to achieve strong grades in every area of academic preparation (12). Use electives to round-out vocational interests. Pursue unrelated coursework to broaden your knowledge--liberal arts, business, accounting, computer science, foreign languages, etc. Develop skills that are marketable across occupations, so your career path remains flexible and challenging. Gain experiences in group communication and personal interaction, since these will be important in your long-term career pursuits. Recognize that learning is a lifelong process. Realize that you may change jobs many times in the same or different companies. Make sure you have the minimum qualifications for your desired position or work to achieve them.

Sometimes it is necessary for new college graduates to take whatever they can get. In these cases, graduates should be open to anything, even jobs that are not necessarily applicable to their academic majors. Expect to start at the bottom of an organizational ladder and work your way up; be willing to work hard in another area if your particular field isn't open immediately.

Identify and establish short- and long-term career goals and aspirations (10) to test/investigate the occupation of your choice while in college. Prepare yourself to be the best they can be. It is wise to have a focus.

What is the single most noticeable shortcoming among today's college graduates?

**Observations:** When reporting on the most noticeable shortcomings of today's college graduates, surveyed employers noted unrealistic career aspirations, mediocre writing and public speaking skills, lack of tenacity, and a marginal work ethic.

The unrealistic career aspirations and work expectations of college graduates (50) are troublesome for employers. There is a general lack of concern among new college graduates about the long-term career goals and opportunities an employer could offer. They are more concerned about immediate gratification of needs. They want to start at the top, and they want it all right now! They have elevated expectations of entry level positions.

There is a sense among employers that new graduates feel they have already "paid their dues" and their employers owe them something. They have high expectations of their initial knowledge and productive contribution to any business. They are not realistic about the duties (not glamorous) and hard work that will be required on their first job. They do not see the big picture; a short-sightedness that is remedied with experience. They lack imagination, initially after graduation. Graduates only want to work eight to five. They are not concerned about growing with a company. They do not know their limits due to inexperience. They lack loyalty to the company, refuse to have patience, and they expect to start at high wages-- they are told to expect this by college faculty.

Their writing skills (32), oral communication and public speaking abilities (21), and interpersonal competencies (3) are noticeably worse than in previous years. When making presentations, their competencies need significant improvement. Their spelling, grammar, and abilities to use proper English are weak. Horrible spelling and incomplete thoughts are often expressed on applications. Grammar, writing, and abilities to prepare effective presentations could be learned from more liberal arts courses.

The mathematical skills and problem-solving abilities (17) of new college graduates need improvement. They should become familiar with business procedures, development of production systems, and new management tools--total quality management, concurrent engineering, and product processing. Real-life organizational experiences and more liberal arts coursework especially in the engineering curriculum would be helpful.

A lack of career-related work experiences and hands-on assignments (12) was noted in today's college graduates. According to surveyed employers, new graduates have a weak work ethic. They are quite often unfamiliar with the skills necessary for success on the job. New graduates want to sit in a room with a computer because universities have not exposed them to real world work experiences. They are very naive about the business world: appropriate behaviors, work expectations, office politics, and normal operating procedures. Summer employment, cooperative education programs, and internships, especially career-related assignments, were highly recommended by employers as possible remedies for this weakness.

Overconfidence of abilities among new graduates is frequently mentioned by employers. New graduates feel they were hired to "save the company," and they have an attitude of "What's in it for me" and "What do I get" rather than an attitude of "What can I do for the company."

There is an absence of tenacity, motivation, and commitment (13) among new graduates. They are unwilling to work the long hours required for success on the job, and they are not flexible in their travel requirements and geographical preferences. They lack understanding of the realities of entry level positions and the hard work it will take to become proficient in a chosen career area. They do not want to manage their own careers. They expect companies to offer career path planning to all, so they do not have to be responsible for it themselves. They are unwilling to pay their dues and gain sufficient experience in a position before wanting to move on. They lack the desire to work on their own time to improve their technical abilities.

Resume and interview preparations were not sufficient (13). Coming to interviews without any prior preparation or knowledge of the companies is common. Quite often graduates do not know the positions available with an employer, although this information is adequately advertised. Curiosity is lacking; graduates do not investigate and thoroughly read recruiting literature before interviews. They lack confidence, assertiveness, and effectiveness at "selling" themselves to an employer. Graduates do not realize that they must present themselves well in interviews. They must do some homework on the companies interviewing them, and they must act as if they truly care. They need to present a great initial picture of themselves, and a poor dress code does not accomplish this task. In addition, new graduates do not know how to question employers about specific areas within the organization. Practice interviews might help with this shortcoming.

A commitment to excellence in the work performance of new college graduates is absent or not discernable. These graduates must realize that hard work will help distinguish them from others-- they need to distinguish themselves from others with outstanding performance to be successful in the business world today.

What is the biggest problem you foresee for graduates of this coming year (1991-92)?

Observations: This year, a continuing tough job market can be anticipated with a surplus of college graduates and fewer job opportunities (89), according to surveyed employers. The present job market is tighter than it has ever been. More difficulty can be expected when finding positions. Employers will still be hesitant to hire large numbers of entry level candidates. The marketplace is flooded with 1992 graduates, but also with 1991 and 1990 graduates.

Layoffs, a continuing recession, and a generally weak economy, according to employers, will bring a lack of job opportunities for most academic majors. Decreases in positions available with other employers will cause mergers, acquisitions, limited attrition, a flattening of top organizational structures, hiring freezes, and financial cutbacks, all of which will reduce job openings for new graduates.

The economy for next year was described by employers as poor, weak, depressed, uncertain, unstable, struggling, sagging, and slow (34). A full-blown recession is in progress and additional cutbacks, limited growth, and more consolidations can be expected. With a fluctuating economy, most employers would rather be too conservative when planning their recruitment goals. They would prefer to hire too few rather than too many new college graduates.

A highly competitive environment will exist (36). Good jobs will be hard for graduates to find, especially at a salary they are willing to accept and in their chosen fields of study. Many graduates will be hard-pressed to find jobs they want. Finding a job that utilizes or matches their academic major will be the challenge. With fewer entry level management positions, new graduates will be forced to take lower level positions.

Experienced candidates will add to the competition (17), because organizations will not have the financial ability to invest dollars needed in training and development of novices when more experienced candidates are available on the job market. Employers are hiring only the best candidates and paying for experience rather than education. Graduates will have difficulty marketing themselves due to their inexperience, especially when the labor market is tight. A lack of hands-on experience will be noticeable in this market. Higher selection requirements will occur. The bottom half of the graduating classes will have a great deal of difficulty obtaining employment.

Simply obtaining a job, any employment, will be difficult for some graduates (11). Those not finding employment that meets their expectations will experience frustration. Many will take a job, but not the one they really want, because they cannot find it. Two to three years from now, many of these graduates will be changing jobs, or be very unhappy.

Higher turnover can be expected at that time (4), because new graduates will have accepting early job offers rather than making comparative choices. Pressure tactics by recruiters are encouraging this trend. Having to "settle" for less than the ideal job, including lower starting salaries, unfavorable locations, etc., will force this issue. For many graduates, it will be difficult to be happy with the job they get, because many will accept a position that does not meet their expectations.

Do you have any suggestions for college seniors who will be interviewing with prospective employers this year (1991-92)?

**Observations:** As suggestions for college seniors when interviewing prospective employers, surveyed organizations recommended thorough research before interviews, a clear definition of career goals, and enthusiasm and sincerity during the interview.

Research organizations in advance of an interview (127), advised employers. Do some homework. Learn all the information you can about an organization or available positions and thoroughly explore all options before making a decision to accept employment. Show that your interests are not only limited to a paycheck. Become knowledgeable about the organization's history, philosophy, values, products, structure, etc. Don't wait for the recruiters to tell you about their organizations. Research annual reports, company literature, and employers' videotapes. This is a widely ignored activity and not impressive when applicants neglect it. Your time together with a recruiter in an interview is more productive if the basics are already known.

Define your career goals and the opportunities you want (29). Know yourself, your skills and abilities, strengths and shortcomings, and traits and characteristics you possess that make you a desirable candidate for employment. Learn to market yourself. Have some specific areas of career interest. Be ready to discuss these in an interview. Be targeted, yet flexible. Keep an open mind regarding opportunities. Consider relocation. Be open to several areas of special interest, since prospects in other areas might offer greater opportunities. Know your accomplishments and their influences on your probable future successes. Realize at the same time that the current job market for new graduates is extremely competitive.

Show some enthusiasm and sincere interest during the interview if you really have an interest in the position (26). Communicate effectively. Exhibit passion and depth. Show commitment and patience. Appear eager and hardworking, and absolutely be on time. Be prepared to discuss your fit within an organization and explain how you can excel at that company. Promote abilities you can contribute to the organization. Show some flexibility based upon needs of the employer. Don't be too selective since it will be a tough market this year.

Be honest and sincere (24). Answer questions honestly. Do not lie on your resume. Do not accept an interview with an employer if you are really not interested in the position. Be truthful and candid in interviews. Don't claim interest in an employer or position if you really aren't. Don't try to force yourself into a position you don't really want just to get a job offer. Be open and honest about your willingness to do or not do certain things for employers (i.e. travel, work long hours, work weekends, etc.). Do not accept a job and then complain about these things. Let employers know what you can realistically do and not do as opposed to hiding your weaknesses. Don't say "I'll take anything," when you will not.

**Be yourself, be totally prepared, but be professional in your attitudes and appearance** (21). Be articulate and confident. Project a positive demeanor and a willingness to be cooperative with prospective employers. Find your edge--why you are different or better than other individuals in your graduating class. Be prepared to answer questions about commitment. Maintain a positive attitude for each and every interview. Do not let rejection affect your outlook.

**Be realistic** (12). Listen carefully and honestly during the job campaign and evaluate whether an organization will be properly suited for you. Know your job market and what it takes to beat the competition. Do not set your starting salary expectations too high. Do not expect too much from an organization until you have proven yourself. Start from the premise that most opportunities are good ones, if you make something of them. Gain as much relevant work experience as possible--internships, cooperative education positions, and summer work assignments. If you lack experience, let the employer know that you have an interest and ability to learn about the position.

**Research all job options** (6). Consider medium and small companies as well as large firms to maximize your search options. Be up-to-date on all the latest trends in your occupational areas. Some graduates may have to take what they can get.

Preparation prior to the interview and early in the job campaign could prove beneficial since it conveys a candidate's initiative and interest to the interviewer. This preparation could also assist the applicant when formulating articulate, thoughtful responses during the interview process--which could be a deciding factor for receiving a job offer.

During the interview, be energetic and talk about your prior work experiences in depth. Discuss and relate your work experiences. Learn to market yourself as an outstanding candidate. Employers hire outstanding candidates. Have several interviews to refine your presentation techniques and create networking opportunities. Interview with as many employers in as many career areas as possible. Attend mock interview sessions or role-playing practices when offered and arrange informational interviews when possible. Those with excellent communication skills have the edge. Ask questions during these interviews. Act alive and interested. Sell yourself! Don't be humble; if you don't sell yourself, who will? But don't be too egotistical either. Believe in yourself. Don't give up. Be pleasantly aggressive. Dress appropriately and maintain good eye contact. Be yourself and not the individual you think the recruiter wants you to be. Relax. Prepare and ask intelligent questions during the interview.

Overall, what influence does a graduate's grade point average have on your organization's hiring decision?

Observations: According to surveyed employers, grade point averages (GPAs) have at least medium importance (153) at the interviewing stages of a job campaign, but poor grade point averages will receive negative replies from employers when choosing applicants for final interviews.

GPAs are one of several criteria used by employers when making decisions on hiring. Other significant factors include: personality of the applicant as observed in the interview, maturity, social skills, campus activities, work experiences, academic background, problem-solving abilities, leadership skills, flexibility, geographical preferences, historical academic record, and class standing. Several employers described their organizations as needing balanced persons, individuals with extra-curricular achievements, appropriate work experiences, and very good academic performance. Some employers noted GPA minimums required for consideration: 2.6, 2.7, 2.8, 2.9, 3.0, etc. .

Among the employers responding, a few (53) reported that GPAs are very important to their organizations and a critical influence in obtaining an interview, but after the interview stage, GPAs have no bearing. Depending upon the employment area being filled, GPAs are very important (i.e. high tech assignments, research positions, design/ analysis fields, engineering, accounting, etc.) and weighed strongly before any hiring can occur. Some employers require GPAs of 3.0, 3.5, or better for hiring consideration. According to some recruiters, GPAs are far more significant than they should be. A few employers consider GPAs as very important along with the college attended. In other organizations, individual course selection and academic performance in subjects related to the job vacancy are considered in addition to GPAs.

With a greater pool of applicants to consider, GPAs have become a greater factor among employers when determining interviews. According to employers, GPAs reflect a college graduate's intellectual capacity, the ability to perform critical analysis, an indicator of work ethic over a period of time, a sign of dependability, an expression of determination and hard work, revealing a seriousness of commitment, academic performance potential, and an indication of competency to complete tasks. However, employers admit that GPAs are not accurate predictors of on-the-job success for most positions.

When hiring decisions are difficult, GPAs become important. As an example, when two candidates are rated equally on all other factors, GPAs are seriously considered. When applicants are poor interviewees, excellent GPAs can make a difference. GPAs are not very important when candidates are scarce, but they are important when work experiences are limited. In some organizations, higher GPAs may receive higher starting salaries.

In positions requiring greater human relations skills (26), GPAs are less important: sales assignments, management trainee positions, and training tasks. In these positions, it is more important to have a business personality and excellent communication skills. For positions like these, employers "hire people, not grades."

Of course, very low grade point averages can be knock out factors. Low GPAs may suggest that graduates have just skated through college. Employers tend to be leery of anything below a 2.5.

What have been some of the best questions asked of you during your experiences with interviewing prospective job applicants?

**Observations:** When listing some of the best questions asked of them while interviewing prospective job applicants, employers provided several excellent examples. Their questions are categorized into the following groups: general topics, career motivation, anticipated job responsibilities, work environment, affirmative action, quality of work, personality factors, products and services, employment trends, measures of work performance, salary and benefits, and interview closure items. When graduating students are preparing for interviews with prospective employers, this list could be very helpful.

General topics. What is the financial stability of this company? What future changes do you see for this company? What direction do you see your company going in the future? Who are your competitors? How successful have you been with marketing your company's products? What plans does the company have for becoming more competitive in this industry? What is the biggest negative about your company? What makes your company different from others?

Career motivation. Why did you accept work with this company? How long have you been employed with this company? Why do you continue to work for XYZ organization? What do you like most (or least) about your company? Would you want your son/ daughter to work for this company too? What makes your association with this employer enjoyable? What are you really hiring me to accomplish? Graduating students are really wanting to get past the recruiting jargon to learn what is truly expected of them. Why should I take this job (or ... work for your company)?

Anticipated job responsibilities. If I were hired by your organization for this position, what duties would I be performing? What will be expected of me in this position? How does my job fit with the mission of the organization, company performance, or profitability? How do you know when to hire additional staff? How much responsibility will I have? Why is this job important to you? What will I be contributing to the organization? What do you wish you knew about the company before you started? What would you change about this position, if you could?

Work environment. What is your corporate culture? How would top management describe the corporate culture, and how does this compare with things in the organization as they really are at the lower levels? What were your personal experiences on this job? Will I be on a team, or in a group? How much freedom am I given to solve problems with my own methods? What help is available to me when my methods fail? Is this a new position? Why did the other person leave? What is your company really like?

Affirmative action/ equal employment opportunities. What is the standard of living among minorities in your local community? What minority programs do you have?

**Quality of work.** What differentiates your company from your competition? Do you get repeat business from your customers? What are the ethical and environmental philosophies of your company? What has been the history of turnover among recent hires in the company? What is this company's philosophy towards their employees? What is the relationship of this organization to the local community?

**Personality factors.** What can I do with my education and training for your company? What values are sacred to this company? What would cause me to leave the company? How mobile can I be?

**Products and services.** Has the company thought of going in the direction of xxx? What impact will the clean air legislation (or other current topic) have on the company? What impact did your recent service (or logo, product, market blitz, etc.) change have on your business? What do you see as the biggest areas of need improvement within the company?

**Employment trends.** What significant changes has the company experienced in the past year? What are short- and long-term strategic directions of the company? What have been the successes (or failures) of the company? What is the company doing to change for success in this changing global economy? What are the company's goals for the future? What is the greatest challenge, from your perspective, that the organization faces during the next year?

**Measures of work performance.** How would you describe the most successful employees in your company? Can I expect opportunities for advancement with the company, if I work hard to prove myself? If I do well, what will I be doing in five years? How will I be evaluated in my job? How often will I be evaluated? Who supervises this position? What is the chain of command for this position? Where would my career progress from my first assignment? How does your company encourage their new hires to keep pace with advancing technologies? What characteristics do you possess that have made you so successful? What can I do within the first five years to help ensure my success within the company? What was your career path within the company? What feedback has been given to your company by recent new hires?

**Salary and benefits.** What is the pay for this position? What are advanced educational opportunities with XYZ organization (MS, MBA, etc.)? May I someday invest in the company? What training would I receive if hired?

**Interview closures:** How did I do? Do I get the job? How soon will I hear from you? What does your company want from successful candidates for this job? What would distinguish one candidate over another for this job? How do I prove myself and my commitment to the company? When would you want me to start in this position?

Which of the following are provided to dual-career couples when one spouse is hired by your organization?

	Response Categories										Total Response	Total	
	Always		Usually		Sometimes		Seldom		Never				
	N	PCTN	N	PCTN	N	PCTN	N	PCTN	N	PCTN	N	PCTN	MEAN
Services for dual-career couples													
Consultation Services	36	14.6%	21	8.5%	55	22.4%	38	15.5%	95	38.7%	245	100.0%	3.6
Contacts with Local Org.	35	13.4%	51	19.5%	100	38.3%	21	8.0%	54	20.6%	261	100.0%	3.0
Day Care Facilities	27	11.1%	18	7.4%	37	15.2%	23	9.4%	138	56.7%	243	100.0%	3.9
Employment Agency Assistance	23	9.5%	24	9.9%	66	27.3%	26	10.7%	102	42.3%	241	100.0%	3.7
Housing/Apartment Advice	93	33.5%	70	25.2%	73	26.3%	15	5.4%	26	9.3%	277	100.0%	2.3
Interview within Your Org.	39	14.2%	46	16.8%	100	36.6%	33	12.0%	55	20.1%	273	100.0%	3.1
Assistance with Job Search	23	8.9%	34	13.1%	81	31.3%	50	19.3%	70	27.1%	258	100.0%	3.4
Market Planning Suggestions	11	4.6%	20	8.4%	40	16.9%	53	22.4%	112	47.4%	236	100.0%	4.0
Relocation Allowance	99	36.1%	47	17.1%	57	20.8%	19	6.9%	52	18.9%	274	100.0%	2.6
Resume Distribution Services	11	4.5%	13	5.3%	51	20.9%	44	18.1%	124	51.0%	243	100.0%	4.1
Resume Writing Services	8	3.2%	9	3.6%	46	18.7%	43	17.5%	139	56.7%	245	100.0%	4.2
Scheduling of Interviews	7	2.8%	11	4.4%	52	21.2%	44	17.9%	131	53.4%	245	100.0%	4.1
Tours of Local Community	49	18.7%	47	17.9%	75	28.6%	31	11.8%	60	22.9%	262	100.0%	3.0
Travel Cost Assistance	98	36.2%	50	18.5%	58	21.4%	15	5.5%	49	18.1%	270	100.0%	2.5

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**Observations:** Dual-career couples are provided with several services by prospective employers when one spouse is hired and the other is not, according to surveyed employers. "Usually" provided to dual-career couples are housing information, apartment advice, and travel cost assistance.

Provided "sometimes" are relocation allowances, tours of the local community, contacts with local organizations, interviews within the hiring organization when appropriate positions might be available, and other assistance with job search strategies.

Employers "seldom" provide consultation services, employment agency assistance, day care facilities, market planning suggestions, scheduling of interviews, resume distribution services, and resume writing services.

According to comments received from responding employers, organizations with small numbers of employees do not have formal programs for the spouses, but they can afford to help in informal ways (i.e. contacting human resources personnel in the area, distributing resumes, and identifying housing available in the local community, etc.).

Employers admitted that this is an area of increased concern. Most corporations do not have formal programs in place yet to fully assist with these problems. At the present time, due to budget cuts, many organizations are not paying relocation expenses associated with buying and selling homes, but other assistance is available at full cost to the employee/spouse.

**How many employees of your organization were reservists called up for the Iraqi crisis last year (1990-91)? Responses are listed by EMPLOYER CATEGORY.**

Employer Types	Call Up Reservists During Iraqi Crisis?			
	Yes		No	
	Number of Employers	Percent	Number of Employers	Percent
Accounting	2	25.0%	6	75.0%
Aerospace	9	81.8%	2	18.1%
Agribusiness	4	66.6%	2	33.3%
Automotive	5	83.3%	1	16.6%
Banking, Finance	11	61.1%	7	38.8%
Chemicals	6	85.7%	1	14.2%
Communication	3	37.5%	5	62.5%
Construction	3	50.0%	3	50.0%
Electronics	19	65.5%	10	34.4%
Research, Consulting & Prof. Svcs.	15	55.5%	12	44.4%
Food Processing	1	33.3%	2	66.6%
Packaging	2	66.6%	1	33.3%
Government	28	65.1%	15	34.8%
Hospitals	9	90.0%	1	10.0%
Hotels Motels	5	62.5%	3	37.5%
Wood Products	3	100.0%	.	.
Merchandising	15	75.0%	5	25.0%
Metals	9	81.8%	2	18.1%
Petroleum	5	100.0%	.	.
Public Utilities	24	88.8%	3	11.1%
Volunteer Org.	.	.	4	100.0%
Textiles	4	100.0%	.	.
Tire & Rubber	1	50.0%	1	50.0%
<b>Overall Totals</b>	<b>183</b>	<b>68.0%</b>	<b>86</b>	<b>31.9%</b>

**Observations:** Of 269 employers responding to this question, 68.0% reported that employees of their organizations were reservists and called up for the Iraqi crisis last year (1990-91).

Employer categories reporting the highest percentages with employees as reservists and called up for the Iraqi crisis were petroleum and allied products (100.0%); lumber, wood products, and furniture manufacturers (100.0%); textiles, home furnishings, and apparel manufacturers (100.0%); hospitals and health care services (90.0%); public utilities including transportation (88.8%); chemicals, drugs, and allied products (85.7%); automotive and mechanical equipment (83.3%); metals and metal products (81.8%); aerospace and components (81.8%); and merchandising and retailing (75.0%).

Reporting 50% to 75% of their employer category with reservists called for duty were glass, packaging, and allied products (66.6%); agribusiness (66.6%); electronics, computers, and electrical equipment manufacturers (65.5%); governmental administration and the military including federal, state, and local levels (65.1%); hotels, motels, restaurants, and recreational facilities (62.5%); banking, finance, and insurance (61.1%); engineering, research, consulting, and other professional services (55.5%); tire, rubber, and allied products (50.0%); and construction and building contractors (50.0%).

Fewer than 50% of the following employer categories reported reservists called up: communications and telecommunications including telephones and newspapers (37.5%); food and beverage processing (33.3%); accounting (25.0%); and social service, religious, and volunteer organizations (0.0%).

Which of the following reasons would be considered appropriate for graduating students to take time off after receiving their degree before beginning work in your organization?

	Response Categories										Total Response		Total MEAN
	Always		Usually		Sometimes		Seldom		Never		N	PCTN	
	N	PCTN	N	PCTN	N	PCTN	N	PCTN	N	PCTN			
Acceptable Reasons to Take Time Off													
Want a Protracted Vacation	35	11.0%	46	14.5%	129	40.8%	59	18.6%	47	14.8%	316	100.0%	3.1
Burnout	23	7.4%	22	7.1%	70	22.6%	89	28.8%	105	33.9%	309	100.0%	3.7
Want Time for Family Responsibilities	56	17.7%	88	27.9%	118	37.4%	37	11.7%	16	5.0%	315	100.0%	2.6
Need to Fulfill a Non-career Related Goal	33	10.5%	49	15.6%	118	37.5%	74	23.5%	40	12.7%	314	100.0%	3.1
Need to Fulfill a Career Related Goal	49	15.5%	94	29.8%	108	34.2%	38	12.0%	26	8.2%	315	100.0%	2.7

Observations: Among employers responding to this question, requests from graduating students for time off after receiving their college degrees would be considered on a case-by-case basis. Each case would have to be evaluated individually. Of the five examples provided, four were "sometimes" considered appropriate, depending upon individual circumstances: requests for time to cope with family responsibilities, need for time to fulfill a personal goal that is career related, desires for a protracted vacation, and need for time to fulfill a personal goal that is not career related. "Seldom" acceptable would be complaints of burnout.

Requests for flexible starting dates are accepted quite often by employers when this is possible. For organizations with firm dates to begin training classes, no exceptions are permitted.

Employers are generally suspicious of any of these requests. Individuals who are reluctant to begin work or request gaps between graduation and their first job are showing a lack of commitment to their professional careers and may be suggesting a lack of financial independence.

During the recruitment process, are your recruiters encouraged to ask new college graduates about their regular smoking habits (cigarettes, cigars, and/or pipe)? Responses are listed by EMPLOYER CATEGORY.

Employer Types	Smoking, an Appropriate Question to Ask?			
	Yes		No	
	Number of Employers	Percent	Number of Employers	Percent
Accounting	1	11.1%	8	88.8%
Aerospace	.	.	16	100.0%
Agribusiness	.	.	6	100.0%
Automotive	.	.	10	100.0%
Banking, Finance	1	3.7%	26	96.2%
Chemicals	1	9.0%	10	90.9%
Communication	.	.	12	100.0%
Construction	1	16.6%	5	83.3%
Conglomerates	.	.	1	100.0%
Electronics	4	10.8%	33	89.1%
Research, Consulting & Prof. Svcs.	1	2.7%	35	97.2%
Food Processing	1	14.2%	6	85.7%
Packaging	1	25.0%	3	75.0%
Government	5	9.8%	46	90.1%
Hospitals	.	.	11	100.0%
Hotels	1	11.1%	8	88.8%
Wood Products	1	25.0%	3	75.0%
Merchandising	1	4.1%	23	95.8%
Metals	.	.	13	100.0%
Petroleum	1	14.2%	6	85.7%
Public Utilities	4	11.7%	30	88.2%
Volunteer Org.	1	25.0%	3	75.0%
Textiles	1	20.0%	4	80.0%
Tire & Rubber	.	.	2	100.0%
Overall Totals	26	7.5%	320	92.4%

Observations: Employers do not encourage their recruiters to ask new college graduates about regular smoking habits--cigarettes, cigars, and/or pipe (92.4%).

Employer categories with some encouragement to ask interviewing questions about smoking habits were glass, packaging, and allied products (25.0%); lumber, wood products, and furniture manufacturers (25.0%); social service, religious, and volunteer organizations (25.0%); textiles, home furnishings, and apparel manufacturers (20.0%); construction and building contractors (16.6%); food and beverage processing (14.2%); petroleum and allied products (14.2%); public utilities including transportation (11.7%); accounting firms (11.1%); hotels, motels, restaurants, and recreational facilities (11.1%); electronics, computers, and electrical equipment manufacturers (10.8%); governmental administration and the military including federal, state, and local levels (9.8%); chemicals, drugs, and allied products (9.0%); merchandising and retailing (4.1%); banking, finance, and insurance (3.7%); and engineering, research, consulting, and other professional services (2.7%).

Questions about smoking habits were not encouraged by agribusiness firms; communications and telecommunications including telephones and newspapers; hospitals and health care services; metals and metal products; diversified conglomerates; automotive and mechanical equipment; aerospace and components; and tire and rubber.

Does your organization require testing of new hires for drug use, AIDS, or alcohol level?

	Response Categories										Total Response		Total MEAN
	Always		Usually		Sometimes		Seldom		Never		N	PCTN	
	N	PCTN	N	PCTN	N	PCTN	N	PCTN	N	PCTN			
Types of Testing Required for New Hires													
Drug Use	167	47.3%	5	1.4%	23	6.5%	7	1.9%	151	42.7%	353	100.0%	2.9
AIDS	3	0.9%	1	0.3%	3	0.9%	7	2.1%	312	95.7%	326	100.0%	4.9
Alcohol Level	51	15.5%	3	0.9%	16	4.8%	7	2.1%	252	76.5%	329	100.0%	4.2

Observations: According to 353 employers responding to this question, required drug testing of new college graduates exceeded 50%, with 55.2% reporting drug testing in 1990-91. Included in this percentage were employers who sometimes, usually, or always screened for drugs. Percentages of employers requiring drug testing in previous years of this study included 59.3% in 1990-91, 47% in 1989-90, 32% in 1988-89, 27% in 1987-88, and 20% in 1986-87.

Testing for alcohol levels among new college graduates was required by 31.2% of surveyed employers. This compares to 28.1% in 1990-91, 25% in 1989-90, 14% in 1988-89, and 9% in 1987-88.

AIDS testing for new college graduates was required by only 2.1% of the employers responding to this year's survey. Testing for AIDS in previous years included 5.4% in 1990-91, 4% in 1989-90, 3% in 1988-89 and 2% in 1987-88.

If your organization does not presently screen job applicants for drug use, AIDS, or alcohol level, do you expect to initiate a testing program?

	Timetable										Total Response		Total MEAN
	Within One Year		Within Two Years		Within Five Years		Not Likely		Do Not Know		N	PCTN	
	N	PCTN	N	PCTN	N	PCTN	N	PCTN	N	PCTN			
When to Start Screening Job Applicants													
Drug Use	14	8.2%	11	6.4%	12	7.0%	89	52.3%	44	25.8%	170	100.0%	3.8
AIDS	2	0.7%	3	1.0%	7	2.4%	168	59.1%	104	36.6%	284	100.0%	4.3
Alcohol Level	6	2.3%	6	2.3%	5	1.9%	145	57.5%	90	35.7%	252	100.0%	4.2

Observations: Of surveyed employers currently not screening job applicants for drug use, 8.2% intend to initiate a drug testing program within one year, 6.4% within two years, and 7.0% within five years. Of organizations not currently screening for alcohol levels, 2.3% intend to initiate an alcohol testing program within one year, 2.3% within two years, and 1.9% within five years. Of organizations not screening for AIDS, 0.7% intend to initiate an AIDS testing program within one year, 1.0% within two years, and 2.4% within five years.

Based upon your experiences, what will be the availability of employment opportunities for new college graduates this year (1991-92) in each of the following geographical regions of the United States? Responses are listed by GEOGRAPHICAL REGION.

Geographical Areas	Job Market Conditions This Year										Total Response		Total MEAN
	Extremely High Avail-ability		High Avail-ability		Medium Avail-ability		Low Avail-ability		None		N	PCTN	
	N	PCTN	N	PCTN	N	PCTN	N	PCTN	N	PCTN			
Northeast	7	3.9%	13	7.2%	56	31.2%	89	49.7%	14	7.8%	179	100.0%	3.5
Southeast	6	3.4%	32	18.6%	79	45.9%	45	26.1%	10	5.8%	172	100.0%	3.1
Northcentral	12	5.5%	20	9.1%	124	56.8%	53	24.3%	9	4.1%	218	100.0%	3.1
Southcentral	8	4.8%	12	7.3%	69	42.0%	65	39.6%	10	6.0%	164	100.0%	3.3
Northwest	4	2.7%	16	11.0%	53	36.5%	48	33.1%	24	16.5%	145	100.0%	3.5
Southwest	6	3.7%	28	17.3%	74	45.9%	43	26.7%	10	6.2%	161	100.0%	3.1

Observations: Based upon the experiences and judgment of surveyed employers, only "medium availability" of employment opportunities for new college graduates will exist in any geographical region of the country this year. For statistical purposes, any responses at the extremely high, high, or medium availability levels were included in these ratings. Receiving a "medium" rating were the northcentral (71.4%), southeastern (67.9%), southwestern (66.9%), southcentral (54.1%), and northwestern (50.2%) regions of the United States. Low availability of jobs for new college graduates is again expected in the northeastern (42.3%) region of the United States.

EMPLOYERS RESPONDING  
TO RECRUITING TRENDS 1991-92

-A-

ABB Process Automation, Inc.  
A G Communication Systems  
Ace Hardware  
ADM Company  
ADTECH  
Aetna Life & Casualty  
Akzo Coating Inc.  
Allen Bradley Company  
Allied Bendix Aero  
Amerada Hess Corporation  
American Institute of Business  
American Management Systems Inc.  
American National Life Insurance  
American Brands Inc.  
American Electric Power  
Americrust Corporation  
Ams Department Stores  
Ametek Incorporated  
Amoco Performance Products Inc.  
Amp Incorporated  
Amsted Industries  
Anderson Consulting  
Anheuser Busch Company  
Ann Arbor Police Department  
Applied Biosystems  
Aquidneck Data Corp.  
Araco Services Company  
Arco Oil & Gas  
Arkansas Power & Light  
Armstrong World Inc.  
Army Info System Command  
Arthur Andersen & Company  
Ashland Oil Inc.  
Ashland Petroleum Company  
AT&T  
Autolite

-B-

Babcock & Wilcox Company  
Baltimore Gas & Electric  
Banta Corporation  
Battelle Columbus Op  
Battelle Pacific Laboratories  
Bay Technical Association  
Beatrice Hunt Wesson  
Bendix/Oceanics Division  
Berkel & Co. Advertising  
Bessmer & Lake Erie  
Bifco R & D Center  
Blaw-Knox Rolls Division  
Bloom Engineering Company  
Blue Cross/Blue Shield-Iowa  
Blue Cross/Blue Shield-Michigan  
Boeing Company  
Boeing Helicopter  
Boise Cascade Corporation  
Boise Cascade Timber  
Bonne Bell  
BP Exploration  
Brighams  
Broad Vogt & Conant  
Broadway & Seymour  
Brown & Sharpe Company  
Budd Company  
Burgess & Niple Ltd

Burns Int'l Security Services

-C-

Cae-Link Corporation  
Cairns & Stewart  
Campbell Ewald Company  
Caro Regional Mental Health  
Carolina Telephone  
Carpenter Technology  
Carter Hawley Hale  
Caterpillar Inc.  
Centennial Group  
Centex Homes Corp.  
Central Bank of South  
Century Rain Aide  
CF Braun and Co.  
Chevron Corporation  
Chicago & Northwest Transportation  
Child & Family Service: CA  
Chrysler Corporation  
Chubb  
Ciba Corning  
Cigna Corporation  
Cincinnati Bell, Inc.  
Cincinnati Gas & Electric  
Cincinnati Police Department  
Controller of Navy  
Circle Pines Center  
Cleveland Pneumatic  
Central Illinois Public Service  
Colonial Williamsburg Foundation  
Columbia Gas Dist.  
Community Mental Health  
Commercial Equipment Co.  
Commonwealth Edison  
Computer Consoles, Inc.  
Con Agre Frozen Food  
Consolidated Papers  
Control Data Corp.  
Coors Brewing Co.  
Corn Products  
Corning Glass Works  
Country Fresh, Inc.  
Countrymark  
Greene, Inc.  
Creative Solutions  
CRST International  
Cushman & Wakefield  
Cyclops Corp.  
Cygna Energy Service

-D-

Devey Tree Expert Co.  
David Taylor Research Center  
Days Inn  
Dayton Power & Light  
Dezey Corp.  
Deere & Company  
Deloitte & Touche  
Department of Agriculture-Minnesota  
Detroit, City of  
Detroit Testing Lab  
Dever Foundation  
Dick Corporation  
Dow Chemical USA  
Drug Enforcement Administration

Dry Storage Corporation  
Duall Industries, Inc.  
Dun & Bradstreet Info. Services

-E-

E I Du Pont  
E-Systems, Inc.  
Eastman Kodak Co.  
Economy Fire & Casualty  
Edwards Air Force  
EG&G Idaho  
Elliot Company  
Ellis Maeyert Associates  
Emerson Power Transmission  
Enaco Inc.  
ERIM  
Environmental Protection Agency  
E.R. Carpenter Co., Inc.  
Ernst & Young  
Echyl Corporation  
Evans & Southland  
Excel Corporation  
ES Services

-F-

Fairchild Controls  
Fairleigh Dickinson  
Farm Credit Services  
Federal Bureau of Investigation  
Ferguson Enterprises  
Firestone Industrial Products  
First Federal Michigan  
First Interstate  
First Michigan Bank  
Flaming Companies  
Flint Public Library  
Flexible Corp, The  
Ford Motor Co.  
Fort Sanders RMC  
Frigidaire Company  
Ft. Lauderdale News

-G-

Gallup-McKinley Company  
General Electric  
General Motors Corporation  
George C. Marshall Center  
Georgia Power Company  
Geupel De Mars, Inc.  
Gold Kist, Inc.  
Goulds Pumps, Inc.  
Grey Advertising  
Ground Round  
GTE Products Corporation  
Guest Quarters Hotel

-H-

Hanscom Air Force Base  
Harley-Davidson  
Harris Corporation  
Harvest States Co-op  
Hasselbring-Clark  
Hendrix & Dail, Inc.  
Henningson, Durham & Richardson

Hercules, Inc.  
High/Scope Camp  
Hitachi Magnetics  
Hoffmann-La Roche  
MO Company, Division of MOM Industries  
Honeywell Avionics  
Honeywell, Inc.  
Hoover Company  
Houston's Restaurant  
Huffy Corporation  
Hyde Athletic Industry

-I-

IBM Corporation  
ICF, Inc.  
IFR, Inc.  
Illinois Department of Transportation  
Illinois Farm Bureau  
Indiana Department of Transportation  
Indiana National Bank  
Industrial Risk Insurer  
Industrial Service Tech  
Ingham County Personnel  
Innovative Housing  
Internal Revenue Service  
International Tech  
Interstate Hotels  
Interstate Power Company  
International Paper Company  
Iowa Resources  
ITT Aerospace/Comm Division

-J-

JC Penney Company, Inc.  
Jefferson-Pilot  
Jet Propulsion Lab  
John L. McClellan Mem  
Johnson & Johnson  
Johnson Controls

-K-

Kalamazoo, City of  
Kansas Department of Transportation  
Kansas Farm Bureau  
Kaufmann's Department Store  
Kellogg Company  
Kentucky Power Company  
Kerr-McGee Corporation  
Key Bank N A  
KG & E Electric Company  
Kids R Us  
Kimball YMCA  
KPHG Post Marwick  
Kustom Signals, Inc.

-L-

L D Hepfer & Company  
La Belle Management  
Lanier Worldwide, Inc.  
Lansing Board of Water/Light  
Lansing, City of  
Lansmont Corporation  
Lazarus Department Stores  
Levy Corporation

Liberty Mutual Insurance  
Liberty National Bank  
Lincoln Electric Company  
Lincoln Laboratory  
Liquid Air  
Livermore National Laboratory  
LNR Comm Corporation  
Lockwood Greene Engineers  
Loctite  
Lord Corporation  
Los Angeles Water/Power  
Lowrance Electronics  
LTV Aircraft Division  
LTV Steel Company

-M-

Macomb County Department of Planning  
Manchester, The  
Maner Costerisan  
Manufacturer's Bank of Detroit  
Marathon Oil  
Marion Merrell Dow  
Martin Marietta  
Masland Carpets  
Mason County Mental Health  
May Department Stores  
May Company of California  
McDermott, Inc.  
McNeil Pharmaceutical  
Mead Data Control  
Menasha Corporation  
Mercy Memorial Hospital  
Merskin & Merskin PC  
Michigan Bell/Ameritech  
Michigan Capitol Girl Scouts  
Michigan Council on Crime  
Michigan Department of Natural Resources  
Michigan Department of Social Services  
Michigan Department of Transportation  
Michigan Education Financial Services  
Michigan Employment Security  
Michigan Gas Utilities  
Michigan Insurance Bureau  
Michigan State Housing  
Michigan State Police  
Midwest Commerce Bank  
Missouri Hwy & Transportation  
Moby Corporation  
Montana Department of Highways  
Moore Products Company  
Morrison's Specialty  
Morton International  
Motorola Cellular  
Mott Foundation-Inv. Office  
Muskegon County

-N-

NASA  
NASA Ames Research Center  
National Bank of Detroit  
National Futures Assoc.  
National Life Insurance Company  
Naval Air Test Center  
Naval Ship Weapon System Eng.  
Naval Undersea Warfare  
Naval Weapons Center

Navy Resale Field  
NCR Corporation, Engr & Manufac  
Neville Chemical Company  
New York Life Insurance  
New York State Insurance  
New York State Transportation  
Newport News Shipbuilders  
Nordstrom, Inc  
Norfolk Naval Ship  
North American Life & Health  
Northrup Corporation, College Relations  
Norwich Eaton Pharmaceutical

-O-

Occidental Chemical Corporation  
Office Systems  
Ohio Board Regents  
Ohio Casualty  
Ohio Department of Agriculture  
Ohio Edison Company  
Olin Corporation  
Omaha Public Power District  
Oscar Mayer Foods

-P-

PA Power & Light Company  
Pacific Electro Dynamics  
Pacific Gas & Electric  
Paper Convert Machine  
Parker Wittus  
Pasquinelli Construction Company  
Pennsylvania State Civil Service  
Commission  
Payless Shoe Source  
Penn Racquet Sports  
Pennsylvania Electric Company  
Peoples Energy  
Peterson Consulting  
Philadelphia Institute  
Pillsbury  
Plante & Moran  
PPG Industries, Inc.  
Pranges Department Store  
Pratt and Whitney  
PRC Consoer Townsend  
Prime Metals  
Procter & Gamble  
Professional Service Industries  
Prudential Financial Services  
PSI Energy  
Public Service-NH

-Q-

Quaker Oats

-R-

Rand Corporation  
Reading Hospital & Medical  
Record Systems & Equipment  
Region II Comm Action  
Riley Consolidated  
Riverside County  
RLC Corporation  
Rockwell International

ROHM Systems  
Royal Maccabees Life

-S-

Saint Vincent Hospital  
San Antonio Public Service  
San Diego, City of  
Sandia National Laboratories  
Santa Fe Railway  
Santee Cooper  
Sargent & Lundy  
Schippers Kintner RO  
Schuler's Restaurant  
Scott Paper Company  
Sears Roebuck & Company  
Shaw Industries, Inc.  
Shelby Insurance Company  
Shemin Nurseries  
Shopko Stores, Inc.  
Siemens Information Systems  
Siemens Medical Systems  
Slakey Brothers, Inc.  
Snap-On-Tools  
Society Bank  
Southland Corporation  
Southwestern Company  
Southwestern Public Service  
Southworth International  
Sparton Electronics  
Springer Building Materials  
SPS Technologies  
St. Francis RMC  
St. Joseph County  
St. Joseph Hospital  
St. Mary's Lodge & Restaurant  
St. Paul Companies  
Stambaugh Thompson  
State Personnel Board  
Sterling, Inc.  
Strawbridge Clothier  
Strong Memorial Hospital  
Stryker Corporation  
Summit Group, Inc., The  
Sunbeam Plastics  
Sybra, Inc.  
Syracuse Research Company  
Systematics, Inc.

-T-

Tallahassee Mem Reg  
Tectonics, Inc.  
Teknor Apex Company  
Teledyne Cae  
Tenneco West, Inc.  
The Adjutant General  
The Bon Marche  
The Polack Corporation  
The Tulsa Tribune  
The Williams Company  
Thermotron Industries  
Thiokol Carstab Corporation  
Thomas & Betts Corporation  
Total Petroleum  
Tomstar, Inc.  
Troy Design, Inc.  
Turner Corporation

-U-

Unilever Research U.S.  
Union Electric Company  
Union Federal Savings  
United Conveyor Corporation  
United Health Services  
United Hospital  
United Illuminating  
United Inter Mtn Telephone  
United Tech Corporation  
United Telephone Ohio  
US Bureau of Census  
US Comptroller of Currency  
US Department of Agriculture  
US Department of Defense  
US Department of Interior  
US Department of Justice  
US Department of Veteran Affairs  
US Forest Service  
US General Accounting Office  
US General Service Admin.  
US Marine Corps  
US National Trans Safety Board  
US OCC Safety Health  
US Secret Service  
US Social Security  
USDA-Office Inspector General  
USG Corporation

-V-

Valmont Industries  
Van Buren Youth Camp  
Varian Associates, Inc.  
Veterans Administration  
Vista Chemical Company

-W-

Wachovia Bank & Trust  
Wade Trim & Associates  
Walden Books  
Walt Disney Products  
Washington-Personnel  
Washtenaw County Roads  
West Penn Power Company  
Whirlpool Corporation  
Wilkie Lawn Services  
Winegardner & Hammon

-X-

Xontech, Inc.

-Y-

Yeo & Yeo  
York International

-Z-

Zellerbach  
3 M Company

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