

RETURN ON INVESTMENT FROM CO-OP AND INTERNSHIP PROGRAMS: GAINING A BASIC UNDERSTANDING

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ABSTRACT

Each party involved in a co-op or internship exchange invests money and time to insure a positive outcome. The results for students have been fairly well documented including better paying jobs (in the recent economic slowdown simply jobs), clearer career identity, and a better understanding of classroom material. Educational institutions also can identify, with a little effort, the returns to their investment. For the company the impact has been described best in anecdotal terms. This paper attempts to obtain a simple understanding of the return on investment in co-ops and internship programs from the perspective of a broad sample of employers. The results show how important these practices are in the strategic search for new employees; plus, they return sufficient benefits to off-set the costs.

INTRODUCTION

Hiring has become highly strategic as the global economy has integrated and the labor pool has nearly doubled with the entry of China's and India's college educated population competing with the educated from the rest of the world. Thus the strategies used to by employers to identify and develop new talent become crucial to sustaining the long-term viability of an organization. Employers need to be sure that their money is being wisely spent and the strategies are attracting the best new employees. In economic language, the rate of return on investment (the money spent on a program tells in relation to the results or payoff from the program) is a critical measure by which success is measured.

It is surprising that little is actually known or revealed about the rate of return on investment in co-op and internships. Of the three participants in the learning exchange, institution, student and employer, more effort has gone into determining if the investment students make has paid off and also for investment institutions put into maintaining these programs. However, employers reveal very little information on the success of their programs, even though they seem to be expanding at the present time. In all three areas the research has been described as sparse and underdeveloped for vocational training programs (Barrett et al., 1998) and simply sparse for cooperative education (Bartkus and Stull, 1997).

LITERATURE

What do we know? Actually little research has been done on returns to investment to enterprises who sponsor co-op and internship programs. An extensive amount of

research has been conducted from the perspective of the student from improvement in learning, better career understanding, easier job search, and higher remuneration in salary upon being hired. The evidence paints a very positive picture. Faculty and academic advisors to co-op and internship programs have also made detailed studies, in part to justify the programs worthiness to doubting administrators, on the returns to institutions (see Jones et al. 2002 as an example).

What you do not find are detailed studies from the perspective of the firm. Part of the problem is that few firms will provide figures on money spent on these programs and internal assessments of what the company gains. A sound theoretical argument on human resource grounds can be made but are seldom translated into a benefit analysis. For an external researcher the task is difficult to obtain consistent information across companies though modest case studies could be developed.

The research reported in this paper came as a result of a discussion with a group human resource representatives from several U.S. employers who wanted to know whether other were obtaining “decent” returns on investment to their internship programs. From this discussion several basic questions were developed and inserted in a larger survey on college recruiting.

METHOD

During September and October of each calendar year Michigan State University conducts an annual survey of employers across the United States to determine their hiring intentions from the seniors that will be graduating. Nearly 5000 employers are contacted from list generated by economic sector, size and geographic location. Employers are also contacted through two on-line service providers of career service functions (on-campus recruiting, job fairs, and resume referral, for example). This sampling attempts to capture as broad a representation of employers as possible. Even though responses typically run between 750 and 1000, the response rate remains under 20%. Thus caution has to be demonstrated when generalizing from the results, even though the statistical power of the responses produce significant results.

The survey addresses hiring conditions, actual number to be hired, actual numbers hired the previous year, and salary offers. The survey allows for topical questions or questions of interest. In the 2005 survey which was administered during September and October 2004, our employer panel requested that the survey contain questions that captured some sense of the importance of cooperative education and internships in the recruiting of new personnel and the rate of return from the investment made in this strategy.

The survey asked if companies had internships and co-op programs (separate questions), their ability to retain experiential learners as full time hires, and the percentage of hires that had internships and co-ops. A question asked them to estimate the percentage of their budget that is spent on recruiting new, college educated personnel, including internships and co-ops. This question was followed by a table that asked them to break down how their recruiting budget was allocated across 10 common recruiting activities.

The final question ask to rate the results they obtain from each of the methods that they utilize on a 5-point Likert scale from 1 = poor results to 5 = excellent results.

RESULTS

Responses were received from nearly 600 companies (Michigan State University, 2004) that represented a wide variety of firms located in every region of the country, with 36% from around the Great Lakes (Ohio, Michigan, and Illinois), 19% from the Southwest (primarily California), mid-Atlantic (from New York to Washington, D.C.) and the Southeast (from North Carolina to Florida). About one-quarter were firms of fewer than 40 employees and another 25% had more than 4,500 employees. About 22% of the sample was comprised of manufacturing firms, 24% were in professional and scientific services (accounting, engineering consulting and services, scientific research, marketing, and environmental management), with the remainder spread across the other economic sectors about evenly (3% to 6%). These latter sectors include financial services, construction, information (telecommunications and data management companies), health care, accommodations and lodging, government, and retail, for example.

Internships. Approximately 78% of the respondents reported that their companies used internships as part of their employee development and hiring program. Most companies felt *moderately successful* in retaining interns as full-time employees. The average of 2.9 fell just shy of the moderate midpoint. Nearly one-third struggled to retain their interns, as the following information suggests.

Table 1. Success in Retaining College Students in Internships Programs

Not very successful	Somewhat successful	Moderately successful	Very Successful	Extremely successful
18%	15%	36%	23%	8%

When examining by company characteristics, the impact of size becomes clear. Companies with fewer than 500 employees have a more difficult time retaining interns as full-time employees (Pearson Chi Square = 38.38, .000) than larger companies. While statistics for economic sector are non-significant because of cell-size limitations, the pattern that emerged does suggest that manufacturing companies, health organizations, and public agencies are able to retain their interns at a much higher level than retail, finance, and administrative support companies. Professional services companies are evenly split between being successful and unsuccessful in retaining interns.

When asked the proportion of their new hires that come from their internship pool, the information suggests that 75% or more of new college hires probably have internship experience. More than one-fifth of the new hires actually have two or more experiences within the company before they are offered employment. Companies are not afraid to raid other company's interns, as nearly 40% of employed new graduates received their internship experience at another company.

Table 2. Percent of New Hires with Internship Experience

	Average % of new hires
Hires with 2 or more internships with company	21
Hires with 1 internship with company	26
Hires with internship experience, not with company	39

Cooperative education. Only about 20% of the companies indicated they maintained formal co-op programs. These companies were primarily from the manufacturing sector with a few financial institutions (banks, for example) and professional services companies (primarily engineering services, accounting, and environmental research firms). Nearly 70% of the employers offering co-op are from larger companies, particularly those with more than 500 employees.

Co-op programs may not be as successful in retaining these students as full-time employees as those companies with internship programs. While more companies with co-op are moderately successful in retaining their co-op trained labor pool, the very successful and extremely successful are slight less when compared to the internship companies. (A coding error allows us to only interpret a sub sample of the co-op employers at this time.)

Fewer of the new company hires came from co-ops than reported from internships. Only about 50% of hires come from co-op. Lower rates can be attributed to the small size of most co-op programs that contribute only a small number to total yearly hires. Also, some co-op students may have found success using their co-op experiences in the recruiting process that has resulted in better offers from other companies. Approximately 25% of new hires have at least two terms of co-op with the employer before hiring and an additional 12% had at least one. Only 18% of the new hires had co-op experience with another company.

Table 3. Percent of New Hires with Co-op Experience

	Average % of new hires
Hires with 2+ terms of co-op with company	24
Hires with 1 term of co-op with company	12
Hires with 1 term of co-op with another company	18

Recruiting budgets allocated for new hires. New organizational commitments with regards to human resource management and the introduction of technically sophisticated recruiting tools have resulted in companies realigning resources allocated to hiring these personnel. Return on investment becomes a major accountability tool in

determining how resources are being used. Respondents were queried on their recruiting budget allocations and their perceptions on the returns received from these investments.

Companies on average allocate about 20% of their human resource budget to recruiting new college-educated personnel. The range ran from 0% (about 10% of the respondents) to 100% (about 2% of respondents). The modes where the largest number of firms appeared were at 5% and 10% with a median being 10%.

A company has a variety of options in how to spend these recruiting funds. The respondents were presented a list of ten commonly used methods and asked to allocated their recruiting budget over these activities so that it reflects their actually use of the funds. Table 4 presents two critical pieces of information. First, the percent of funds allocated per activity, discussed next. Their rating on their return to investment for each strategy is provided in the second section of the table. These percentages have not been adjusted for individuals who may have allocated more than 100% of their budget or account for those who may not have used a specific strategy.

The largest recipients of resources are job listing services and on-campus recruiting with 29% and 21%, respectively. Ads in papers, journals, and other media also capture 19% of many budgets. The other areas received from 8% to 12% of the budget. Funds used for co-op and internships are a modest 12%. The practice varies among companies on just who absorbs the salary costs. In some cases respondents mentioned that recruiting funds were not used to pay for intern or co-op salaries. However, in some companies, particularly firms with internship programs, salaries were a part of the recruiting budget.

Table 4. Return on Investment and Budget Allocation to Various Recruiting Strategies

	Average % budget	%	<u>Return on Investment</u>		
			% Poor	% Good	% Excellent
On-campus recruiting	21	24	41	35	3.1
Company's Web posting (HP)	8	34	47	19	2.8
Resume referral (campus)	8	27	51	22	2.9
Job fairs	14	28	47	25	2.9
Job listing services (Web)	29	23	42	35	3.1
Ads	19	38	42	20	2.7
Co-op/Internship	12	22	45	33	3.1
Staffing consultants	9	36	50	14	2.5
Local/regional job boards	11	27	50	23	2.9
Referrals (employees)	11	12	43	45	3.5

Return on investment. An impression of the respondents seems to indicate that the return on investment appears to be “good” for all strategies except ads and staffing

consultants (38% and 36% reporting poor). Money invested in employee referral programs received the highest returns with 45% indicating that results were excellent. The next three strategies that received the highest level of return were on-campus recruiting, job-listing on the web, and internship and co-op programs. It appears that strategies with a strong social capital basis (networks, face-to-face contact) have distinct advantages in capturing new talent.

The four programs with the overall highest averages on the 5-point scale were the ones just mentioned in the previous paragraph. Because of the size of the sample, these means are significantly higher (or approach significance) when compared using ANOVA method.

The largest companies (those with more than 4,500 employees) reported the highest average mean (3.41) on the results to the return on investment compared to smaller companies whose average clustered around 3.00. The ANOVA statistic approached a .05 level of significance with an $F=2.427$, $p=.066$. Manufacturing companies reported an average of 3.65 which was higher than the average of the remaining sectors at 3.35. Financial service and business support services reported the lowest levels on the return scale with averages of 2.79 and 2.75 respectively. Thus not all sectors find that co-ops and internships easily convert into hires.

DISCUSSION

Admittedly this level of analysis does not provide accurate information in terms of monetary returns on the money spent and time invested by firms in co-op and internship programs. Unlike research on students where the information can, with modest expense and effort, be collected or accountability reports from numerous academic institutions that can be assembled in mega-type analysis, capturing the actual figures from companies are difficult and often problematic. As reported in the literature review, no solid examination exists on return on investment in companies, even though companies are eager to highlight their internship or co-op programs as a strategic hiring method. At least the casual, partially superficial impressions captured in this study support the contention that experienced based learning strategies are good a deal for companies in their search for new talent.

What did emerge from this study are four key observations that can serve as a basis for discussion. First, even on the 100th anniversary of co-op in the United States, the use of co-op is actually declining. Co-op was developed within and through the support of manufacturing companies and is largely still located in this sector. The natural lure for manufacturing has been its high need for engineers who are the primary participants in co-op programs. However, the manufacturing sector for the past two decades has been cutting labor requirements; a process that has accelerated as the world's economy has integrated and engineering employment has been realigned. No other sector, with the possible exception of accounting firms, as stepped up to fill the void. Companies from other sectors of the U.S. economy have found it much more expedient to provide internships; a process they are much more familiar with and which also requires less formality in the arrangements between students, institutions and employers. The

challenge stemming from this observation is how to sustain co-op as a viable entity in an economy that is less focused on manufacturing. The challenge may be more pertinent to the U.S. and other developed western economies than in the emerging economies of China, India, South Africa, Costa Rica, and other lower cost labor suppliers where the latter could continue to benefit from co-op driven learning opportunities.

Having laid out a challenge for co-op, the evidence strongly suggests that internships and co-ops combined are used by more than 80% of companies hiring new college graduates in the United States. Even though a consistent body of evidence is not available, reports from practitioners across the world suggest the same pattern can be found in their countries. Thus, experiential learning in all its guises has become the strategic hiring mechanism in most companies. And the outlook is that hiring will become even more strategic in the years to come. The challenge for companies is to find some means to further differentiate students that are being considered for employment. One possible approach is merely extending the experiential learning component from a minimum of one experience to a required two experiences.

While the evidence is only anecdotal at best, it does appear that between 70 and 80 percent of U.S. college students have some form of internship, co-op or career related employment before graduated. Some if not many of these experiences may not fall within the professional definitions of *good experiential learning*; nevertheless, more and more students are seeking these experiences. Similarly, among employers, nearly 80% in this sample are hiring nearly all their new college employees from internship or co-op trained candidates.

As more and more students look similar on the paper resume, employers will have to up the ante for those who are to be considered for employment. Employers are going to put a premium on more experience in the workplace over other activities such as study or travel abroad, leadership, and service. These latter activities are already at acceptable levels. This shift would then require students to gain two or even three experiences which will be problematic given the time commitments they currently make (at least in U.S. colleges). More pertinent to this discussion are the types of skills and competencies that will be required from these additional work experiences. At least we have some ideas to explore as 25 to 30 percent of students may already have multiple experiences. They should be able to demonstrate the more advanced skills that will be required, as they already capture higher salaries upon graduation (see Gardner and Motschenbacher, 1997).

In the absence of hard figures in terms of actual dollars (local currency) spent on maintaining experiential programs within the company, these impressions confirm what employers tend to say publicly about the importance of these programs. They appear to obtain good to excellent returns to investment since they can apparently retain such a high percentage of co-ops and interns as permanent hires.

The real challenge as laid out in the opening comments to this paper is to respond to the challenge of Bartkus and Stull and Barrett and his colleagues to the pitiful condition of research within the co-op and internship community. The scarcity of good, consistent research is perplexing as the importance of experiential learning continues to rise. While this work presented here adds to our understanding, the hope is that it will stimulate enough interest for groups to expand into more rigorous study.

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