Journal of
INDUSTRIAL
TECHNOLOGY

Volume 15, Number 3 - May 1999 to July 1999

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KEYWORD SEARCH

Automotive
Higher Education
Administration
Research

Reviewed Article

The Official Electronic Publication of the National Association of Industrial Technology • www.nait.org

What Influences Students to Attend Four-Year Automotive Programs

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Introduction

There are few occupations that have not been affected by the growth of technology. Automotive technology is an occupation that has been and will continue to be affected by changing technology and industry standards. Current automobiles are a challenge to repair because of this advanced technology, but the future automobile will be even more complicated (Riley, 1995). This advanced technology will require automotive technicians to have greater skills and knowledge in this area. This creates the need for individuals who are working in the area of service management to have advanced knowledge and skills as well. Service managers and technicians with advanced technical skills on automobiles are in demand and it is anticipated this demand will be greater in the future (Cornish, 1996). Within the automotive area, there is a tremendous amount of growth expected within the next 10-25 years. Cornish and Riley indicated change will be unbelievable and the rate of global change will continue to accelerate. Speelman and Stein (1993) state that qualified, well-educated technical personnel are increasingly in demand as technology continues to develop. To meet this demand for these workers, schools need to be preparing individuals in these areas. Enrollment within these programs is needed so as to prepare enough individuals to meet the future demands.

The purpose of this study was to identify effective recruitment factors as reported by students within baccalaureate automotive technology programs. Though both two-year and four-year automotive programs are important, this study looked at the recruitment factors that enhanced the student's decision to attend four-year automotive programs. This information will be helpful in providing colleges and universities with specific recruiting strategies that may aid them in recruiting students for these programs. The primary objective of this study was to identify how four-year automotive students rated the influence that different components or techniques had on them in attending a four-year program.

Factors Identified From Literature That Influence Student Enrollment Behavior

From the literature, the following seventeen factors that influence enrollment behavior were chosen: (a) friend(s) at university/community college or high school (Edmund, 1980; Hossler, Bean, & Associates, 1990), (b) reading this university's catalog (Hossler, Bean, & Associates, 1990; Paulsen, 1990), (c) high school/community college counselor/teacher (Devier, 1982; Edmunds, 1980; Isbell & Lovedahl, 1989; Izadi and Toosi, 1995, (d) parent(s)/relatives (Hossler, Bean, & Associates, 1990; Speelman & Stein, 1993), (e) alumni of this university (Devier, 1982; Edmunds, 1980; Hossler, Bean, & Associates, 1990; Isbell & Lovedahl, 1989), (f) reputation of automotive program, (g) technology recruitment activities (Izadi and Toosi, 1995), (h) university recruiters visiting my high school (Hossler, Bean, & Associates, 1990), (i) athletic advisor/coach (Izadi & Toosi, 1995), (j) admission office at this university (Hossler, Bean, & Associates, 1990; Paulsen, 1990), (k) campus visit (Edmunds, 1980; Hossler, Bean, & Associates., 1990; Isbell & Lovedahl, 1989; Litten, 1989), (l) reputation of the university (Paulsen, 1990), (m) university recruiters visiting my community college (Hossler, Bean, & Associates, 1990), (n) community in which university is located (Paulsen, 1990), (o) bulletin board advertising at my previous school (Izadi & Toosi, 1995), (p) promotional materials (brochures, letters, videos) (Hossler, Bean, & Associates, 1990), and (q) articulation or direct transfer from community college (Isbell & Lovedahl, 1989).

Methodology

Population

The target population for this study was the eight universities in the United States that offer Automotive Technology baccalaureate degrees. These universities were selected with assistance from the recruiting staff of

Electronic Data Systems (EDS) Customer Service Technologies in Troy, MI. This organization hires Automotive Technology graduates for entry-level management positions for General Motors, Saab, and Volvo. The eight schools included the following: (1) Ferris State University, (2) Pittsburg State University, (3) Southern Illinois University at Carbondale, (4) University of Southern Colorado, (5) Central Missouri State University, (6) Weber State University, (7) Montana State University - Northern , and (8) Indiana State University. All Freshman, Sophomores, Juniors and Seniors from each school were asked to participate in the study (N=607).

Instrument

The survey instrument was developed by the researchers with the aid of previously used instruments. The following five-part Likert-type scale was used throughout the instrument: 1= not important, 2=slightly important, 3=important, 4=quite important, and 5=very important.

A panel of experts was used to establish content and face validity for the survey. This panel of experts recommended that an additional item "Reputation of Automotive Program" be added to the instrument. After revisions were made to the instrument, it was pilot tested with a group of twenty students within the four-year automotive program at Pittsburg State University. To measure internal consistency, a Cronsbach's' alpha was calculated, resulting in a r = .84.

Procedure

The department chairpersons for each of the eight universities were contacted by telephone by the researchers to request their participation in this study. At this time, the chairpersons were asked the number of students in their four-year automotive programs. A packet of instruments were sent to each department chairperson with instructions on how to administer the instrument. Of the 607 student surveys sent, 383 (63.09%) were returned. Of the 383 student surveys returned, 382 (99.74%) were usable. There was no attempt to follow-up nonrespondents.

Findings

Recruitment items (Table 1) that students indicated as very important included; Reputation of the Automotive program (62.3%), Reputation of the University (40.6%), and Parents/ Relatives (24.1%). Parents/Relatives was also a bi-modal item between the response categories of very important and quite important. A recruitment item indicated by students as quite important was Campus Visit (31.7%). Twelve of the recruitment items had a modal response in the not-important category. Examples of responses in this area include: Athletic/Advisor Coach (61%); Bulletin Board Advertising at previous School (59.2%); University Recruiters Visiting Community College (57.9%); and Articulation or Direct Transfer from Community College (49.7%)

Conclusions

Based upon the findings, it can be concluded that there are four recruitment items that four-year automotive students are influenced by: (a) reputation of the automotive program, (b) reputation of the university; (c) parents and relatives, and (d) campus visit. This differs from past research mainly because reputation of the specific program was not included in past research. As a reminder, the recruitment item "reputation of automotive program" was added because of suggestions from the panel of experts.

The reputation of the automotive program was the most influential recruitment factor to the participants followed by the reputation of the university. There were no references from past research that included specific program reputation such as the automotive program.

This study yielded similar results in that parents and relatives are influential factors in students attending educational programs. Gray & Herr (1995) and Speelman & Stein (1993) found in their studies that parents continue to have a strong influence over the career or school choice that students make.

Students indicated that campus visits were quite important to them in deciding whether to attend the four-year automotive program of their choice. This agrees with past research that indicated that having prospective students on campus is one of the most effective recruitment tools (Edmunds, 1980; Hossler, Bean, & Associates, 1990; Isbell & Lovedahl, 1989). In addition to this, Wanat and Bowles (1992) stated that campus visits were viewed as the most powerful source of information in helping students to make a decision about a school and the most effective recruiting activity used by college admission officers.

Table 1. Student Response to Recruitment Items

Recruitment Items	Non-Response		Not Important		Slightly Important		Important		Quite Important		Very Important	
	(f)	(%)	(f)	(%)	(f)	(%)	(f)	(%)	(f)	(%)	(f)	(%)
Friends at University/Community College/High School	2	0.5	**115**	**30.1**	52	13.6	68	17.8	71	18.6	74	19.4
Reading University Catalog	2	0.5	77	20.2	79	20.7	**119**	**31.2**	76	19.9	29	7.6
High School/Community College Counselor/Teacher	6	1.6	**97**	**25.4**	51	13.4	75	19.6	80	20.9	73	19.1
Parent(s)/Relative(s)	4	1.0	69	18.1	39	10.2	87	22.8	91	23.8	**92**	**24.1**
Alumni of this University	5	1.3	**139**	**36.4**	60	15.7	71	18.6	59	15.4	48	12.6
Reputation of Automotive Program	1	0.3	10	2.6	15	3.9	31	8.1	87	22.8	**238**	**62.3**
Technology Recruitment Activities	2	0.5	**98**	**25.7**	53	13.9	79	20.7	89	23.3	61	16.0
University Recruiters Visiting High School	2	0.5	**177**	**46.3**	50	13.1	58	15.2	57	14.9	38	9.9
Athletic Advisor/Coach	2	0.5	**233**	**61.0**	52	13.6	53	13.9	30	7.9	12	3.1
Admission Office at This University	0	0.0	**162**	**42.4**	68	17.8	73	19.1	51	13.4	28	7.3
Campus Visit	3	0.8	57	14.9	37	9.7	79	20.7	**121**	**31.7**	85	22.3
Reputation of the University	1	0.3	30	7.9	28	7.3	63	16.5	105	27.5	**155**	**40.6**
University Recruiters Visiting My Community College	3	0.8	**221**	**57.9**	32	8.4	50	13.1	43	11.3	33	8.6
Community in which University is Located	1	0.3	**122**	**31.9**	50	13.1	63	16.5	96	25.1	50	13.1
Bulletin Board Advertising at my Previous School	5	1.3	**226**	**59.2**	35	9.2	61	16.0	36	9.4	19	5.0
Promotional Material (Brochures, Letters, Videos)	5	1.3	**127**	**33.2**	53	13.9	77	20.2	83	21.7	37	9.7
Articulation or Direct Transfer from Community College	2	0.5	**190**	**49.7**	27	7.1	71	18.6	46	12.0	46	12.0

Note. Modal responses are in bold

Twelve of the items on the survey had modal responses of not important. It can be concluded that the respondents from this survey deem these as items of little influence to them attending a four-year automotive program. This finding is different than the findings of past research in the area of recruitment of students. This is of importance in that students in different educational programs may be influenced by different items. Information such as this is also important to recruiters in that different influences within program areas may differ between these programs.

Two specific items dealt with community college students only. These were "university recruiters visiting my community college" and "articulation or direct transfer from community college." Both of these were indicated as not important within this study. An unknown factor here was the number of students that transferred from the community college level. If the number of transfer students was low, this is self-explanatory. If the number of transfer students was high, this would indicate to four-year automotive programs that articulation and visits to community colleges may be of little importance as a recruitment tool.

Implications

Persons who are involved in Automotive Technology recruitment should become familiar with the findings of this study. In order to enhance recruitment of students specifically for four-year Automotive Technology programs, there are certain areas that recruiters should focus their time and efforts in. Each of these areas will be discussed individually.

The reputation of the automotive programs can be communicated to the prospective student in several ways. Examples may include: (a) placement statistics printed and made available to the students; (b) ranking of the programs made available to the students; and (c) reputation of the program and career opportunities should be emphasized as faculty visit high schools and share with the high school students.

Recruiters need to remain aware of the influence that parents and relatives have over prospective students. While talking with students, they also need to be talking with the parents that influence these students as well.

Campus visits should be included in the recruitment process to enhance students enrolling and attending four-year automotive programs. If program recruiters are not currently using this method for recruitment, it is recommended that they begin using campus visits. If this process is currently being used by recruiters, it is recommended that they continue using it.

For future study it is recommended that research be conducted on how to incorporate the reputation of the automotive program and career opportunities into formal recruitment plans. In addition, since reputation of the automotive program was ranked the highest, it is recommended to research what reputation means to prospective students.

Since it was found that different recruitment items influenced four-year automotive program students to attend, it is recommended that all technology based programs research the recruitment items that may be more influential to their students. They may discover different findings than that of academic programs.

References

Cornish, E. (1996). The cyber future: 92 ways our lives will be changed by the year 2025. The Futurist, 30(1), 27-67.

Devier, D.H. (1982). The recruitment of industrial arts teacher education students in Ohio with possible implications for the total profession. Journal of Industrial Teacher Education, 19(3), 27-38.

Edmunds, N.A. (1980). Effective recruiting: A pool to replenish, sustain, and improve the profession. The Journal of Epsilon Pi Tau, 6(1), 17-22.

Gray, K.C., & Herr, E.L. (1995). Other Ways to Win: Creating Alternatives for High School Graduates. Thousand Oaks, CA: Corwin Press, Inc.

Hossler, D., Bean, J.P., & Associates. (1990). The Strategic Management of College Enrollments. San Francisco: Jossey-Bass, Inc.

Isbell, C.H. & Lovedahl, G.G. (1989). A survey of recruitment techniques used in industrial arts/ technology education programs. The Journal of Epsilon Pi Tau, 15(1), 37-41.

Izadi, M., & Toosi, M. (1995). Effective recruitment techniques as identified by students majoring in industrial technology. Journal of Industrial Technology, 11(3), 13-16.

Paulsen, M.B. (1990). College Choice: Understanding Student Enrollment Behavior. ASHE-ERIC Higher Education Report No. 6 Washington, D.C.: The George Washington University, School of Education and Human Development.

Riley, R.Q. (1995). Specialty cars for the 21st century: Downsized cars with upscale appeal. The Futurist, 29(6), 8-12.

Sampler, M.D., & Lakes, R.D. (1994). Work education for the next century: Beyond skills training. In R.D. Lakes (Ed.), Critical Education for Work: Multidisciplinary Approaches (pp. 95-107). Norwood, NJ: Ablex Publishing Corporation.

Speelman, P.K., & Stein, J.J. (1993). Factors that influence career choices made by EMU female industrial technology students. Journal of Industrial Technology, 9(4), 29-32.

Wanat, C.L., & Bowles, B.D. (1992). College choice and recruitment of academically talented high school students. The Journal of College Admission, 136, 23-29.