

# **Department Executive Officers' Administrative Roles and Responsibilities In Industry/Technology Education**

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There is extensive literature devoted to the roles, responsibilities, tasks, and changing expectations of departmental executive officers (DEOs) at the college or university level. Several conditions have changed regarding the roles and responsibilities of these department chairpersons or heads in the last two decades.

The role is becoming more complex because of rapid social and economic changes. The role is also becoming more diverse as departments get larger and interrelationships with other academic departments are encouraged. These increased pressures on the DEO, may be the reason there also is evidence of a higher turnover rate. With increased responsibilities, there is a need for better administrative preparation to meet the demands of current conditions. Strategic planning, assessment, staff development, resource allocations, and cost benefit analysis forecasting call for more formal preparation. The most critical concern is that there is insufficient knowledge regarding the DEOs responsibilities now and in the future to effectively prepare people for this position.

Coffin (1979) reported that department executive officers, whether designated as heads or chairs of departments, constitute the largest proportion of administrators in universities. The immediate responsibilities of the department executive officer are most critical to the welfare and efficient functioning of an academic department. Research by Wolansky (1978) made particular note of the fact that: "For the most part, the departmental executive officer is appointed principally by virtue of his/her academic achievement and intellectual standing rather than proven managerial ability" (p. 55).

There is a need to re-examine the criteria for screening and selecting DEOs who would best serve the contemporary administrative needs of a department. For example, several other criteria for screening and selecting DEOs that may be as important as academic achievement are: program development, public relations, administrative style, communication skills, leadership, and professional involvement. However, lacking empirical evidence delineating the

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critical roles and tasks of a DEO, it is equally difficult to prescribe reliable and valid criteria for the selection process. This study attempted to discover what responsibilities the current Industry/Technology Education DEOs perceived as critical to their functioning in such positions. The DEO's represented departments identified through the Industrial Teacher Education Directory which is inclusive of a diversity of industry/technology education programs.

John Bennett (1982) reported that "Serving as a department chairperson has become both more important and more difficult in recent years. Many of the factors that have given the position greater significance have also aggravated its burdens" (p. 53). Lee and VanHorn (1983) observed that the increasing sophistication and costs of academic programs coupled with inflation and decreasing government financial support, have led to a much stronger demand for greater attention to operational efficiency.

Turner (1983) and McLaughlin, Montgomery and Malpass (1975) have provided evidence that few department executive officers had any administrative experience before assuming their leadership role at the department level. When considering the nature of the role of the DEO and the ever increasing magnitude and complexity of responsibilities associated with this position, it is unfortunate that little effort is made to prepare people for the task. McKeachie (1972) observed that "even though the department chairmen are the key individuals in determining the educational success of the colleges and universities, they have remained generally ill-equipped, inadequately supported, and more to be pitied than censured" (p. 48). It is quite evident that DEOs are increasingly being faced with an enlargement of responsibilities and dwindling of resources which lead to increased job related pressures. Also, the increasing diversity of constituencies served by academic departments forces the DEO to be knowledgeable and functional in a variety of arenas. These constituencies include students and alumni, colleagues, legislators, taxpayers, and employers. The DEO must accommodate the expectations of each which calls for administrative and political astuteness. The ability to reach acceptable compromises on critical issues is paramount. Frequently, faculty and students are not aware of the pressures and expectations placed on their DEO. The position of a DEO is in a constant flux, at times requiring immediate attention to the most pressing problems. Such unexpected demands contribute to frustration and high turnover rate.

There is ample evidence of a high turnover rate among department executive officers. Heimler (1967), Falk (1979), and Jennerich (1981) suggested that the high turnover rate was, in part, due to the value-conflicts, frustrations and ambiguities of the role. Roach (1976) indicated that "...80% of administrative decisions are made at the department level" (p. 15). He also observed that even as the DEO "...shifts from a purely subject-matter specialist to a planner and developer of department programs, he still remains an instructional catalyst, resource allocator, arbitrator/human relations expert, and a partner in shaping the institutional goals and mission" (p. 15). Finding out what the critical roles and tasks of department executive officers are at a given time,

may be helpful in the process of screening and selecting DEOs. However, research relating to possible future changes in administrative responsibilities of department executive officers as compared to the present is almost nonexistent. Unless administrative responsibilities of a DEO are identified, prioritized, and validated, it is unlikely that appropriate preparation will be provided. This study was conducted with the intent of creating an initial data base of the administrative responsibilities of DEOs in industry/technology education. This seems essential to enable researchers to monitor the continual evolution of the DEO's role.

### **Purpose**

The specific purpose of this study actually was threefold: First, to develop a profile of department executive officers of industry/technology education according to their job title as head or chair, type of department, years of administrative experience and extent of formal administrative preparation; second, to determine DEO's perceived importance of various administrative responsibilities; third, to investigate whether or not there were any significant changes taking place in the duties of department executive officers in industry/technology education. There was also an interest in examining the perceptions of relatively new DEOs as compared to those with more extensive experiences.

### **Methods**

The methods employed in conducting and reporting this research included: (a) the development of an instrument, (b) the identification of a study sample, and (c) a sequence of procedures for analyzing the data.

#### *Instrumentation*

The instrument used in this study was developed based on the instrumentation and the results of previous studies conducted by Wolansky (1978), Price (1977), Roach (1976), and Smart (1976). These studies concluded that a department executive officer's major administrative responsibilities included: department governance, curriculum development, faculty development, student affairs, budgeting and control, quality of work life such as faculty welfare and work environment, public relations, facilities management and fund raising. These nine categories seemed most inclusive in viewing the DEOs role as an administrator in its broadest context.

Embodied within the nine categories are various skills or administrative duties such as working with committees, coping with departmental and campus politics, and building alliances. Twenty-nine tasks were identified as representative of a wide range of administrative duties and were compiled from those administrative duties identified in the literature. A listing of these 29 tasks is provided later in the text. It must be recognized that the above nine categories

of administrative responsibilities and the list of 29 tasks may still not be all inclusive. For purposes of this study, no attempt was made to identify any of the 29 tasks as being specifically related to any one of the nine categories.

The questions that were selected from previous studies and the additional items in the form of questions based on the 29 tasks were combined and formatted into the final instrument. This instrument then was validated for inclusiveness of content by a jury of eight senior DEOs from major universities. Jury members were selected on the basis of their extensive experience as DEOs and their reputation as national leaders in the field.

#### *Population and Sample*

The population consisted of all chairs and heads of departments that offer degrees in industry/technology teacher education listed in the 1985-86 Industrial Teacher Education Directory (Dennis, 1985). The sample included a total of 104 DEOs from the eastern, mid-western, and western regions of the country. These regions were established by first designating the Mississippi Valley Industrial Teacher Education Conference membership boundaries as the mid-western region. The other two regions were composed of those states lying east or west of the Midwest region. There were a total of 35 DEOs in the east and west, and 34 in the Midwest. This stratification was done because the researchers were interested in discovering if any regional differences actually existed.

Sixty of the original 104 surveys were returned. Fifty-eight of these were found to be usable. No follow-up of nonrespondents was attempted due to the time of the academic year when the survey was distributed which was during the latter part of the Spring semester. The late mailing may have contributed to the relatively low response. Since this study was concerned primarily with DEOs having responsibility for teacher education programs, it was considered that the group would be reasonably homogeneous and therefore a small sample would be acceptable for providing necessary data for analysis. It is recognized however, that the results may have been biased by the number of nonrespondents. Therefore, caution should be exercised in interpreting the results.

#### *Procedures*

Instrumentation was developed as reported, the sample was drawn as described, and the instruments were mailed late in the Spring semester of 1986. The DEOs were asked to provide demographic data and to rank the nine categories of administrative responsibilities as to their relative importance. They also were asked to report the time they devoted to the nine categories and to the 29 tasks contained within and to indicate their perceptions of whether this time on task was changing. Collection, coding and analysis of data followed after the decision was made that an adequate return of the sample from each region was available. The statistical analyses included percentage distribution, rank order, ANOVA, Pearson Product Moment Correlation and The Scheffe Multiple Range procedure.

## Results

In an attempt to develop a profile of DEOs in industry/technology education, the respondents were asked to provide demographic information. Results are reported in Table 1.

**Table 1**  
*Demographic Profile of Sample*

Characteristics	N	Percentage
Total Years of Professional Experience		
1 to 5 years	17	29.3
6 to 10 years	15	25.9
11 to 15 years	11	18.9
16 and over	15	25.9
TOTAL	58	100.0
Previous College Administrative Experience		
Yes	26	44.8
No	32	55.2
TOTAL	58	100.0

**Table 1 (continued)**

## Years of Previous College Administrative Experience

None	32	55.2
1 to 4 years	15	25.9
5 to 9 years	5	8.6
10 or more	4	6.9
No response to question	2	3.4
<b>TOTAL</b>	<b>58</b>	<b>100.0</b>

## Number of Semester Credit Hours of Administrative Courses

0 semester credit hours	2	3.5
1-3 semester credit hours	4	7.0
4-7 semester credit hours	7	12.0
8-11 semester credit hours	15	25.9
12 or more semester credit hours	30	51.6
<b>TOTAL</b>	<b>58</b>	<b>100</b>

## Age

0 - 29	0	0.0
30 - 34	9	15.5
35 - 39	8	13.8
40 - 44	17	29.3
45 - 49	18	31.0
50 - above	6	10.4
<b>TOTAL</b>	<b>58</b>	<b>100.0</b>

The majority (53.4%) of DEOs had the official title of chair. When asked if they had any previous administrative experience at the college level, 32, or 55.2% indicated that they did not. Of the 26 respondents who had previous administrative experience, 24 responded to the question regarding the number of years of the previous experience. The majority with previous administrative experience (62.5%) reported having from one to four years experience. However, 13 of the 32 with no previous college administrative experience reported having had administrative experience at the secondary school level. Over half (51.6%) of the respondents reported having taken 12 or more semester credit hours of administrative courses. Nearly 60% of the respondents were between the ages of 40 and 49, while no one was under the age of 29.

The relative importance of the nine categories of administrative responsibilities was determined by having the respondents rank order the nine categories. The results are presented in Table 2. Since the mean is more widely used and better understood than other ways of designating central tendency, the authors decided to present the data in this manner rather than the median.

**Table 2**  
*Mean Rankings of the Responsibility Categories*

Responsibility Category	N	M-rank	SD
General Department Governance	58	2.62	2.09
Curriculum Development	58	3.20	2.01
Budgeting & Control	58	3.62	2.08
Faculty Development	58	4.06	1.89
Student Matters	58	4.44	2.59
Quality of Work Life	58	5.31	2.50
Public Relations Management	58	5.43	2.66
Facilities Management	58	5.44	2.27
Fund-raising Activities	58	7.17	2.64

Within the nine identified administrative roles and responsibilities, the top five were (a) general departmental governance, (b) curriculum development, (c) budgeting and control, (d) faculty development, and (e) student matters.

After ranking the nine categories of administrative responsibilities as to their relative importance, the respondents were asked to indicate the amount of time they devoted to each category. The resulting mean-time distribution is summarized in Table 3. The decision was made to express the average time that a DEO devoted per week to a particular category recognizing that the time DEOs would devote to a particular category is dependent on many factors. For example, in the early and latter parts of a semester a DEO may spend considerable time with student affairs while spending almost no time in this category during the middle of a semester. Several respondents elected not to complete parts or all of this section of the questionnaire, therefore, the *n* for these data ranged from 42 to 46.

**Table 3**  
*Mean Weekly Time (hours) per Responsibility Category*

Responsibility Category	N	M (hours)	SD
General Department Governance	44	9.37	4.86
Student Matters	43	7.47	3.84
Public Relations	43	7.30	4.73
Quality of Work/Life	44	6.72	4.19
Faculty Development	46	5.99	4.09
Budgeting	45	4.96	3.51
Curriculum Development	45	4.77	3.16
Facilities Management	42	3.79	3.06
Fund-raising	43	2.85	2.76
TOTAL		53.22	

The DEOs reported spending an average of 53.22 hours per week attending to their administrative roles and responsibilities. This finding is corroborated by Coffin (1979) and Sharpe (1955). This demanding schedule implies extended hours per day, extended hours per week, or both. DEOs spent most of their time attending to five categories: (a) general department governance, (b) student matters, (c) public relations, (d) quality of work life, and (e) faculty development. As indicated in Table 3, a DEO devotes approximately 37 hours or 69% of a 53.22 hour work week to the top five categories of administrative responsibilities. These reported hours do not include the time devoted to the other nonadministrative functions such as teaching, research or service. One limitation of this study was that the researchers did not address the nonadministrative functions of DEO's.

While the DEOs are currently devoting a considerable amount of time to the above categories, they also were asked to provide their perceptions regarding spending more time, the same amount of time, or less time on these tasks in the future. The respondents reported (Table 4) that they expect to spend an increased amount of time on the following: departmental governance, curriculum development, budget and control, faculty development, and student matters. It is interesting to note that departmental governance is recognized as the most important category and governance tasks such as preparing department budgets, assigning teaching loads, and planning and conducting departmental meetings are also perceived as consuming a growing percentage of their time. This increase in time devoted to departmental governance may result from the fact that 68% of the responding DEOs administer multiprogram departments



that provide preparation for teacher education, industry, vocational education, safety, etc.

**Table 4**

*Perceived Changes in Time Spent on Administrative Tasks in the Future*

Task #	Description	N	More Time (%)	Same Time (%)	Less Time (%)
1.	Interpreting the philosophy and goals of Ind. Ed. & Tech.	55	36.4	45.4	18.2
2.	Explaining university and departmental policies to faculty and students	56	45.5	49.0	3.5
3.	Stimulating and rewarding innovative ideas/efforts	54	37.0	51.9	11.1
4.	Preparing departmental budgets and monitoring expenditures	58	62.2	29.2	8.6
5.	Preparing specifications for new equipment and facilities	53	32.0	34.0	34.0
6.	Planning, delegating & directing program activities	55	41.8	47.3	10.9
7.	Seeking graduate assistantship through grants, projects/gifts	56	48.2	41.1	10.7
8.	Monitoring advances in technology that positively impact curriculum innovations	55	54.5	34.5	10.9
9.	Planning periodic review of curriculum offerings/programs	54	44.4	46.3	9.3
10.	Assisting faculty members in solving problems relating to teaching/nonteaching tasks	54	22.2	64.8	13.0
11.	Redesigning and retooling instructional equipment and physical facilities	53	41.5	41.5	17.0

**Table 4 (continued)**

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12.	Screening and admission of students with sound educational background	53	26.4	56.6	17.0
13.	Keeping records on equipment and instructional supplies	53	26.4	52.8	20.8
14.	Soliciting donations of teaching materials	49	36.7	49.0	14.3
15.	Pursuing issues relating tenure/promotion and reappointment	53	35.8	52.8	11.4
16.	Maintaining faculty and students' morale	52	61.5	34.6	3.8
17.	Assisting faculty to embark on self-renewal programs	53	45.3	45.3	9.4
18.	Assigning teaching and research loads to staff	50	62.0	56.0	18.0
19.	Supervising classroom teaching & projects	52	15.7	46.2	38.5
20.	Monitoring the performance of duties in which the teachers worked out their own schedules	54	24.1	51.8	24.1
21.	Seeking affiliation of dept. to reputable associations	53	37.7	39.6	22.7
22.	Organizing periodic exhibition of laboratory products	48	14.6	41.7	43.7
23.	Initiating teacher production of teaching aids	49	18.4	51.1	30.5
24.	Supporting/assisting students' fund-raising efforts	44	6.8	50.0	43.2
25.	Striving for state, national/international recognition of departmental programs	53	43.4	35.8	20.8
26.	Planning & teaching own class; research and publications	57	38.6	38.6	22.8
27.	Enlisting the cooperation of business/industrial leaders	49	46.9	38.8	14.3

**Table 4 (continued)**

28.	Seeking trial demonstration of modern teaching equipment and latest instructional models	47	29.8	48.9	21.3
29.	Planning/conducting departmental meetings; attending university administrative meetings	57	71.9	24.6	3.5

The third purpose of this study was to investigate whether or not the DEOs perceived changes in administrative roles and responsibilities and if differences existed between regions. The independent variables for this part of the study included (a) type of department [single or multiple program], (b) years of administrative experience, and (c) number of semester credit hours of administrative courses.

While examining whether differences existed between DEOs with varying years of administrative experience and the weekly time devoted to the nine administrative categories of responsibilities, no significant difference was found at the .05 alpha probability level. Similarly, no significant regional differences were found for any of the three independent variables. When examining the data for category 3, "Public Relations," in isolation, there was a significant difference between groups based on years of professional experience. Results are shown in Tables 5 and 6.

**Table 5**

*Means and Standard Deviations for Time on Public Relations Management by Years of Professional Experience*

Experience	N	M hours/week	SD
1 to 5 years	13	7.85	4.62
6 to 10 years	10	5.37	3.53
11 to 15 years	8	11.44	5.34
16 or more years	12	5.58	3.80

**Table 6**

*Analysis of Variance of Time/Week on Public Relations Management by Years of Professional Experience*

Source	df	Mean Squares	F	F-prob
Between/Within groups	3	71.1464	3.8197*	0.017
Within groups	39	18.6264		

\*p < .01.

The Scheffe Multiple Range test revealed that DEOs with 11 to 15 years of professional experience tended to spend significantly more time in public relations than DEOs with 1 to 5 years, 6 to 10 years, or 16 or more years.

A closer examination of administrative perceptions regarding specific tasks was also conducted in relation to the three independent variables. Using a single classification analysis of variance procedure, the analysis for task #7—seeking additional sources of funding (e.g., graduate assistantships through grants/projects, or gifts from friends and alumni of the department) was found to be significant as reported in Tables 7 and 8.

**Table 7**

*Means and Standard Deviations of Perceived Changes in Task 7 (Seeking Additional Sources of Funding) for Years of Professional Experience*

Groups	N	M Perceived Changes	SD
1 to 5 years	17	3.56	0.51
6 to 10 years	15	3.71	0.61
11 to 15 years	11	3.00	0.45
16 or more years	15	3.13	0.83

**Table 8***Analysis of Variance of Perceived Changes in Task 7 by Years of Professional Experience*

Source	df	Mean Squares	F	F-prob
Between/Within groups	3	1.53	3.88	0.014*
Within groups	53	0.39		

\*p &lt; .01.

Results of this analysis showed that there were significant perceived differences between classifications of DEOs by length of professional experience regarding this relative time change devoted to task #7. Further analysis using the Scheffe Multiple Range procedure, revealed that DEOs with 11 to 15 years of professional experience tended to perceive this relative change in this administrative task differently from other groups. It also was found that there was a statistically significant relationship between years of administrative experience and rating of the public relations duty as portrayed in Table 9.

**Table 9***Pearson Correlation Coefficients for Broad Administrative Responsibilities by Years of Experience*

Independent Variable	General Admin.	Budgeting & Control	Curriculum Development	Public Relations
Years of Experience	0.165 (n=58) p=0.21	-0.086 (n=58) p=0.52	0.097 (n=58) p=0.46	0.296 (n=58) p=0.02*

\*p &lt; .05.

**Table 10**

*Pearson Correlation Coefficients for Broad Administrative Responsibilities by Administrative Coursework*

Independent Variable	Faculty Develop.	Budgeting & Control	Curriculum Development	Public Relations
Formal Admin. Coursework	0.32 (n=57) p=0.018*	0.148 (n=57) p=0.27	0.146 (n=57) p=0.28	0.066 (n=57) p=0.63

\*p < .05.

Analysis of the data using Pearson Product-Moment Correlation reported in Table 10, regarding the relationship between formal administrative coursework completed by the study sample and the broad categories of administrative responsibilities, revealed a statistically significant relationship between the amount of formal administrative coursework taken by the study sample and the ranking of the category of faculty development. It was apparent that the DEOs with the more coursework in educational administration ranked the category of faculty development as a higher priority than those with less coursework. This implies that administrators with more extensive formal preparation also tend to encourage the professional development of their faculty members.

Analysis of the data categorized by the three regions yielded no significant differences. The nine categories containing the 29 tasks were perceived similarly by the DEOs regardless of region. The time devoted to each task by the DEOs also was found to be no different from one region to another.

### **Discussion and Implications**

While extensive analysis of data was performed, only those results where significant differences were found or pertinent interpretations could be made are reported in this article.

It was most evident that the DEOs surveyed perceive their primary responsibility to be that of providing leadership not only in the governance duties but also in the process of curriculum development and innovation. Considering the current economic constraints under which many industry/technology education departments are working, it's understandable that the DEOs ranked "budget and control" as third most important on the list of responsibilities.

The analysis of data yielded few differences between groups of respondents with the exception of the group with 11 to 15 years of professional experience. The members of this particular group essentially were more concerned with the image or public relation aspects of their departments. It may be that this group is still highly motivated and views public relations as more vital to the sustained support for numerous aspects of their departments than the three

other experience groups. This particular experience group also appeared to be the most supportive of their faculty.

Observing that the largest percentage of the sample had from 1 to 4 years of administrative experience and were between the ages of 45 and 49 years, implies that there is a substantial turnover in DEOs. This finding is confirmed by the research by Heimler (1967) and Jennerich (1981) and also may be attributed to the fact that the majority of the DEOs are appointed as chairs for a term of five or fewer years, making it more likely that some would not wish to serve a second term.

Among the most encouraging findings was that 51.6% of the respondents reported having taken 12 or more semester credits of administrative courses. This study did not attempt to identify the specific administrative courses that currently are being provided, however, the results of this study suggest a need exists for more administrative coursework directed toward departmental governance, budget and control, and faculty development. Such additional preparation may take on a variety of forms. The needs of the administration in a particular region may best serve as the immediate basis for additional study.

There was a discrepancy regarding the relative importance of some of the nine categories of administrative responsibilities listed in Table 2, and the amount of time devoted to these responsibilities listed in Table 3. While a particular category may be ranked as important in terms of a DEO's responsibility, the time devoted to that specific category may or may not be consistent. For example, the DEOs ranked curriculum development second in importance, but devoted only 4.77 hours/week to this category which ranked seventh in terms of time devoted to this role. There was agreement, however, on the importance and the time devoted to the category of governance. This finding is in keeping with Lee and VanHorn (1983) who observed that the increasing sophistication and costs of academic programs, coupled with inflation and decreasing government financial support, have led to a much stronger demand for greater attention to operational efficiency.

After reviewing the related literature and examining the results of this survey, the authors are convinced that limited insights and a lack of consensus about the administrative roles and responsibilities of DEOs of industry/technology education still exists. This view is shared by Edmunds (1987). He suggested that "More indepth studies need to be undertaken to determine the types of changes that have and are taking place. Additional research efforts might include identifying (a) the characteristics of successful leaders, (b) the external and internal influences upon the role of the administrator, (c) the current channels used to become a departmental leader, (d) the relationship between job satisfaction and future leadership development, and (e) the differences, if any, between leadership training for industrial teacher education administrators and that of other educational area leaders. DEOs represent both sets of interests—teaching and administration." While the authors agree with Edmunds' views, it is most important to realize that if the DEO is to lead

and influence others, the motivation must come from the commitment to the discipline itself.

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