

Engineer Employee-Employer Relations, An Industry Professional Practices Evaluation Model

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ABSTRACT: Models of the Future are presented for use in assessing quantitatively the professional index of an industrial company's employment practices and its engineer employee-employer relations. Using these models, professional societies are encouraged to institute on-going programs to measure, evaluate and publish results to assist its engineering members in making employment and career planning decisions, taking into account the quality and quantity of a prospective employer's total benefits package, its professional standing and its track record regarding policies for handling of its professional engineers.

INTRODUCTION

Two of the basic services which a Professional Society provides to its membership are (1) the establishment of guidelines and standards for the Professional employment to Engineers by industry and then (2) conducting an effective on-going program for evaluating how well the industries succeed in attaining the professional levels. For the most part, the employment guidelines adopted in early 1973 by 16 Professional and Technical Societies, representing over 650,000 Engineering members, attained the first goal. Now, the societies need to begin evaluating the degree to which industrial employers of engineers have adopted and instituted those employment policies and practices meeting the standards, then publish the results. Special recognition awards could be made to those companies receiving outstanding ratings.

This paper proposes two prototype models offered for use to all the societies to survey, assess, evaluate and analyze two important areas; (1) professional employment policies and practices, and (2) engineer employee-employer relations. While the first emphasizes the company aspect, the second emphasized the people aspect.

The proposed models are encouraged for widespread use by Professional and Technical Societies at the National, State and Chapter levels. Publication of their findings will serve two needed purposes; first, to enable engineers better to evaluate a prospective employer during the employment seeking ritual, and second, act as a catalyst to help substandard industries upgrade their policies and practices so as to better enable attracting engineer employees by providing them the needed professional employment environment.

DISCUSSION

The Taft-Hartley law establishes Engineers to be part of the management team and classifies them as professional exempt employees. In order for the employed Engineer to render Professional Engineering services for his employer in industry and protect the public there must be a professional relationship between Engineer employers and employees. Having recently recognized the need to improve this relationship, 16 of the nation's largest engineering and scientific societies have been working together in Washington, D.C., over the past years and reached agreement on one uniform set of employment guidelines. The approach was to work in a professional manner as the collective bargaining method common in labor practices is considered to be not only unprofessional but is prohibited from practice by engineering societies.

In February, 1973, a uniform set of guidelines was adopted by the 16 societies, which have over a 650,000 combined membership out of some 1,250,000 estimated Engineers and Scientists in the U.S. The April 1973 issue of IEEE Spectrum published the full set, titled "Guidelines to Professional Employment for Engineers and Scientists." The guidelines are considered goals to strive for, but are not hard and fast demands; in this sense the employee-employer are to act in good faith in a professional atmosphere.

The guidelines provide criteria for both employee and employer in areas dealing with objectives, recruitment, terms of employment, professional development and termination/transfer. In May of 1973, a 3-day workshop was held and brought together in Chicago 100 of the top employers of engineers with the societies to review the guidelines and strive to reach agreement.

On April 28, 1973 the author received a letter from the President of the Florida Engineering Society advising of his two-year appointment of the new State FES Committee on Engineer-Employee/Employer Relations. The letter stated "this is one of the society's newest committees and it reflects important need to monitor and work towards improving the professional relationship between engineer employer and their employees." As part of that committee's work, plus additional and separate work by the Orlando Section — IEEE's Professional Activities Committee, a questionnaire now exists for surveying and measuring the Engineer Employee-Employer relations. That survey is enclosed as Appendix A.

As a member of the Florida Engineers in Industry Practice section of FES, the author compiled data and prepared a survey questionnaire aimed at assessing the Professional level of an industry. Here, the format developed by the National Society of Professional Engineers (NSPE) for use in their annual award recognition program formed the basis of the author's model, and Appendix B details this survey model.

A third questionnaire model to consider, not included in this paper, was published in the August 1973 issue of Professional Engineer Magazine, NSPE's monthly publication to its membership. The questionnaire, titled "An Employment Guidelines Checklist for the Engineer Job Applicant," provides a question and answer method of evaluating up to three companies while interviewing for employment. In essence, the questions are geared to the Professional Employment Guidelines Practices, providing a step-by-step evaluation. Upon completing interviews with up to three companies, the applicant then can evaluate the scores and make a selection. This differs some from both Appendices A and B in that it measures what the company tries to convince the applicant as to what its practices are, but since all three companies interviewed are doing the same, a relative comparison still seems a useful tool.

Engineer Employee Questionnaire: This is intended for direct mail to local IEEE Section membership. This is the method the Orlando Section utilized in 1973 in its survey rather than use as in-company distribution. Of course, the number contacted is a smaller number, but then it will benefit those who financially support the Society anyway. Providing a post-paid self-addressed means for returning the

questionnaire will increase the percent participation (Orlando Section realized over 50 percent).

Questions are asked about the individual in the first part of an autonomous basis, soliciting data of a demographic nature. A second part solicits information about the individual's career and job enrichment priorities important to him. A third part attempts to quantify the individual's feelings regarding his company's performance in areas of moral policy and communications. A final part solicits narrative comments from the individual on whatever he/she chooses to discuss.

Employment of a data processing procedure for data tabulation and reduction will facilitate handling the large quantity of data resulting. Lastly, mail out of results directly to the membership provides the engineer with a data base profile for use in guiding his own individual job/career planning or decisions.

Careful examination of the data can provide a valuable basis for further data analysis, cross-correlation and special studies. From the direct, implied and undetermined results, the local Section's Executive Committee should be equipped with a solid information base to plan programs aimed at serving a local membership better.

The results obtained from a Central Florida tri-section survey are reported in a companion paper by T.M. Stefanik.

Survey for Ranking an Industry's Professional Policies and Practices:
It is proposed that the Society institute on-going programs to survey industry across the U.S. and in each IEEE Section locally; analyze results, publish findings, and issue both awards for those which excel and censure those which fall below preset minimum standards for Professional policies and practices. The NSPE has awards program which it conducts annually. It recognizes industries from the State chapters and makes a National award. On the other hand, the American Association of University Professors (AAUP) has for years issued censures for those colleges and universities falling below standards and publishes their findings. The IEEE should do both of these by coordinating the grass roots Section's participation, providing the basic input data. Results would be published in the IEEE Spectrum for both awards and censures. Appendix B provides a prototype Model of the Future for use in conducting such a survey.

CONCLUSION

The IEEE is urged to assume a leadership role in surveying engineer employee-employer relations and assessing the professionalism of industry policies and practices. Publishing results nationally provides a valuable service to its membership and advances engineering professionalism, thus benefitting society as a whole as the consumer of the engineer's responsible design creativity.

APPENDIX B INDUSTRY PROFESSIONALISM POLICIES AND PRACTICES EVALUATION MODEL

- A. OVERALL PROFESSIONAL COMMITMENT
 1. Valid State Authorization Certificate to practice Professional Engineering.
 2. Percentage of Responsible Senior Engineering Staff Members Licensed as Professional Engineers.
 3. Percentage of overall Engineering Staff as Licensed PE's and EIT's
 4. Sustaining Firm Membership of State Professional Engineering Society
 5. Company Policy Statement Endorsement of Professional Registration.
 6. Company Policy Statement Endorsement of Code of Ethics for Engineers.
 7. Encouragement of Employee Participation in Professional/ Technical Societies.
 8. Degree Company Subscribes to Society Endorsed "Professional Employment Guidelines"
 9. Company Communications Effectiveness
 10. Engineer Employee Morale
- B. GENERAL EMPLOYMENT PRACTICES
 1. Recruitment
 - a. Equal Employment Opportunity Employer
 - b. Written employment offer
 - c. Clearly defined business and technical job description in writing
 - d. Systematically arranged interviews
 2. Terms of Employment
 - a. Defined objectives, policies, programs
 - b. Progressive salary schedule adjusted annually
 - c. Sound indirect compensation programs for retirement plans, health and life insurance, sick leave, paid holidays and paid vacations
 - d. Published job descriptions; titles, duties, responsibilities authority
 - e. Annual performance appraisal/interview
 - f. Equal opportunity for technical as well as supervisory advancement, recognition and reward
 - g. Provision for adequate protected pension plan
 - h. Professional office facilities
 - i. Availability of support and para-professional staff
 3. Professional Development
 - a. Provides continuing education programs and compensated leaves for study
 - b. Policy for prompt publication of work
 - c. Provides environment and attitude conducive to professional growth
 - d. Individualized career planning
 - e. Positive Development Programs for Older Engineers
 4. Termination and Transfer
 - a. Adequate notice/compensation
 - b. Internal relocation policy
 - c. Provide Termination Interview and reason therefor