

# Implications of Foreign Training Practices for American Apprenticeship\*

MYRON ROOMKIN  
*University of Chicago*

GARY B. HANSEN  
*Utah State University*

During the last decade many industrialized Western countries have either overhauled or seriously considered changing their systems of industrial training, especially those segments such as apprenticeship which are intended to aid young workers in the transition from school to work. The United States is currently reconsidering her traditional approaches to apprenticeship training. An examination of foreign developments might aid us in our present reexamination by helping to place American practices in perspective and possibly by providing the ideas for fashioning changes domestically.<sup>1</sup>

Due to limitations of space, this paper is not a detailed account of foreign apprenticeship practices and policies. We offer here a very brief summary of foreign apprenticeship as a preface to our discussion of domestic reform based on foreign-inspired changes.

## Industrial Training Abroad

After World War II, European countries experienced large increases in the number of apprentices and in the number of apprenticeable occupations. This expansion was based on the following principles of apprenticeship, many of which had been developed before World War

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<sup>1</sup> An international comparison of apprenticeship systems is, of course, a risky exercise. There are numerous economic, political, and institutional differences between the U.S. and other nations whose practices interest us. Still it is worth noting that an international comparison of vocational and apprenticeship practices has been part of the reviews conducted by several nations. See Gertrude Williams, *Apprenticeship in Europe* (London: 1963); the report by the Australian Tripartite Mission, *Training of Skilled Workers in Europe*, which is summarized in D. L. Casey, "Which Way in Training Skilled Workers?" *Personnel Practice Bulletin* 26 (June 1970), pp. 100-108; Government of Ontario Ministry of Colleges and Universities, Manpower Training Branch, *Training for Ontario's Future: Report of the Task Force on Industrial Training* (Ottawa, Canada: Government of Ontario, 1973), pp. 36-61, hereafter referred to as "The Task Force on Industrial Training"; and AnCO, *Apprenticeship: A New Approach* (Dublin: May 1973).

II, which continue to influence contemporary changes in foreign systems:<sup>2</sup> (1) adolescents (usually 15–18 years of age) leaving full-time education to enter adult work should, wherever possible, undergo a period of training in employment; (2) training is of such importance that the control and supervision thereof should not be left entirely to the private decision-making of trade unions and/or management; (3) training should produce high standards of performance, safeguarded by rigorous monitoring and testing procedures; (4) training should include both theoretical and practical instruction and should be provided within the hours of a normal working week and under flexible arrangements; and (5) the government or designated agents assume all the costs of the theoretical and related instruction given off the job.

During the 1960s, several of these nations began to contemplate significant changes in their established systems of training youth in industry—for surprisingly similar reasons. First, rising levels of national wealth permitted an increase in the number of compulsory years of schooling, thereby creating skill shortages in many sectors of the economies. Second, a significant gap was perceived between the way apprenticeship was supposed to function and the way it did, especially with regard to the quality of training. Last, the pressure for training reforms was given impetus by two supranational developments: (a) the trend toward more liberal governments in Europe, who were anxious to use training and education policy as one method of income redistribution; and (b) the formation of the Common Market, which encouraged labor mobility and substitutability among nations.

To meet these developments a new model of apprenticeship emerged. Among the characteristics of this newer European model are the following:<sup>3</sup> (1) there is greater concern for improved coordination of apprenticeship with other manpower policies and for improved integration of vocational and regular education—the emphasis having shifted to improving all forms of vocational education and training;<sup>4</sup> (2) a variety of organizational structures have been created to facilitate government's in-

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<sup>2</sup> CIRF, *European Apprenticeship* (Geneva, Switzerland: 1966) provides the most definitive report on apprenticeship in those countries during that period.

<sup>3</sup> The thrust of the European apprenticeship systems is well illustrated by the following definition taken from the 1971 French apprenticeship law: "Apprenticeship is a form of education. Its purpose is to give young workers who have completed their full-time schooling a general training, both theoretical and practical, with a view to their obtaining a vocational qualification based upon one of the diplomas in the field of technical education. This training, which must be preceded by a contract, is based partly within an enterprise (industrial, commercial, agricultural, or horticultural) and partly on a Centre for Apprentice Training."

<sup>4</sup> Beatrice Reubens, "German Apprenticeship: Controversy and Reform," *Manpower* 5 (November 1972), pp. 12–20.

volvement in the administration of programs;<sup>5</sup> (3) the transition of youth from school to work has been made even more gradual and has been placed under even greater amounts of control; (4) there has been renewed commitment to quality training practices, which has manifested itself in new monitoring arrangements and clear lines of accountability, along with substantial national programs of research in all aspects of industrial training and apprenticeship; (5) apprenticeship has been made more flexible to better meet the needs of employers and to give trainees the opportunity for further occupational growth and mobility, primarily through the introduction of the modular system of training;<sup>6</sup> (6) coupled with increasing flexibility in the training of apprentices at the outset of their careers has been the development of suitable training programs for adults; and (7) the trend toward greater public involvement in the financing of apprenticeship has continued, with some nations instituting special training taxes.<sup>7</sup>

### Relevance of Selected Foreign Training Practices for the U.S.

An analysis of the implications of foreign approaches to apprenticeship and other forms of industrial training can be made at two levels: techniques and policy. At the level of techniques, selected practices and procedures might be adopted with beneficial consequences without changing fundamentally the goals or policy objectives of American apprenticeship. Some of the policy questions pose a much more fundamental issue: whether the principles of policy in foreign apprenticeship systems are worthy of emulation, even if this requires major structural change in the existing U.S. occupational training system.

Foreign experience, it has been suggested, offers the following examples of techniques and methods which have been used abroad to improve the quality and increase the quantity of foreign apprenticeship

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<sup>5</sup> See Friedrich Edding et al., *Cost and Financing of Post-School Occupational Education*, Bundestag, 7th sess., Printed Matter 7/1811; and a brief description of the structural changes made in the British training system in 1964 is contained in Gary B. Hansen, *Britain's Industrial Training Act: Its History, Development and Implications for America* (Washington: National Manpower Task Force, 1967).

<sup>6</sup> Sweden has gone the farthest of all continental countries in the introduction of module training programs, known as "polyvalent training," through legislation. See Chris Hayes, "The Shape of Things to Come," *Personnel Review* 4 (Autumn 1972). A general description of the technique can be found in A. E. Dowding, "An Introduction to Vocational Training Using Methods of Employable Skills," *International Labor Review* 107 (June 1973), pp. 553-557.

<sup>7</sup> After World War I, a tax (*taxe d'apprentissage*) was imposed on all French industry to provide funds for vocational education and training. Law No. 578 of July 16, 1971, imposed on all employers a charge of one-half of 1 percent of their total wage and salary bill as a contribution toward training and retraining.

programs:<sup>8</sup> (1) using cost subsidizations and financing policies to help employers meet the cost of and/or support the provisions of services to help employers improve training; (2) creating new administrative arrangements to improve coordination between apprenticeship and other methods of skill acquisition; and (3) improving flexibility in training through changes in the content and conduct of training.

#### ECONOMIC SUPPORT OF TRAINING

As practiced abroad, economic encouragements to increase the quantity and quality of apprentice training have taken three forms: (a) direct grants to employers from general revenues; (b) imposition of special training taxes on employers; and (c) stipends from general revenues to apprentices.

*Grants or Credits.* There is little doubt that grants or credits to employers from general revenues would increase the number of apprentices. This has happened in Europe. The justification is that apprenticeship is viewed as an extension of the educational system rather than as just a skill acquisition process. In the U.S. apprenticeship is primarily a program of highly general skill training which, if the conventional theory holds, is self-financing through the system of wages for production. Grants would be desirable only if apprenticeship were judged to create public benefits; yet we know of only two suggestive studies<sup>9</sup> that have found wage benefits of apprenticeship to be positive vis-à-vis alternative sources of skill acquisition. Similarly, it has not been shown to our satisfaction that an insufficient amount of apprenticeship is being conducted.

At the present time, there is far from enough evidence available to support a wide-scale program of public subsidies for employers in order to promote apprenticeships. We lack adequate information on employer training costs needed to design subsidy programs in apprenticeship and on the size of the alleged gap between initial apprentice wages and their productivity.<sup>10</sup>

<sup>8</sup> See, for example, Gerald G. Somers, *Innovations in Apprenticeship: The Feasibility of Establishing Demonstration Centers for Apprenticeship and Other Industrial Training* (Madison: Manpower and Training Research Unit, University of Wisconsin, 1972), pp. 7-27.

<sup>9</sup> See Myron Roomkin and Gerald G. Somers, "The Wage Benefits of Alternative Sources of Skill Acquisition," *Industrial and Labor Relations Review* 27 (January 1974), pp. 228-241; and William S. Franklin, "A Comparison of Formally and Informally Trained Journeymen in Construction," *Industrial and Labor Relations Review* 26 (July 1973), pp. 1086-1094.

<sup>10</sup> See Myron Roomkin, "Improving Apprenticeship: A Pilot Study of Employer and Union Reactions to Foreign Training Practices," hereafter referred to as Roomkin, "Improving Apprenticeship" (Chicago: Graduate School of Business, University of Chicago, 1973), mimeo.

The effects of public subsidization might manifest themselves in program quality instead of quantity. One can only speculate about the net contribution of a subsidy, however. Without careful monitoring, the firm may decide to substitute public training dollars for its own, thus keeping the quality of instruction static.

*Encouragement Through Taxation.* In Britain, Germany, and France, government can tax employers who don't train apprentices and can use tax rebates or manipulations to reward firms that do train. The theory behind this approach is that nontraining firms get a free ride. Any significant grant activity needed to stimulate training in shortage occupations is provided from general public revenues.

On the basis of the British experience, which is perhaps the most instructive, we believe the use of the training tax would have a salutary effect on training only if it were used as the British *now* use it (and to some extent the French)—as a means to stimulate training in an industry on a cooperative basis and to provide services to employers that would otherwise be unavailable. The use of training taxes for redistribution purposes raises questions of fact about which we have no definitive information.

*Stipends.* In some foreign countries grants are given to young workers to defray the personal costs of apprenticeship, in recognition of the educational character of apprenticeship. Given the current view of apprenticeship in the U.S., stipends could be given if it were reasoned that the personal costs of indenture deterred an adequate supply of youth from entering apprenticeship.

As we evaluate the evidence, however, the standard measures of occupational shortage—rising wage rates, reported shortages of applicants or short queues to programs—do not indicate any unwillingness in the aggregate of youth to undertake indentures.<sup>11</sup>

In summary, given the paucity of factual data upon which to make an analysis, we would urge that additional research be undertaken to determine whether the complete reliance on the traditional wage mechanism to finance on-the-job instruction for apprentices is still practical in its present form.

#### COORDINATION AND INTEGRATION THROUGH NEW ADMINISTRATIVE STRUCTURES

Foreign experience has suggested that a necessary remedy for the problems of coordination and integration in American programs is the creation of new administrative structures for apprenticeship and other

<sup>11</sup> George Strauss, "Union Policies Toward the Admission of Apprentices," in *Issues in Labor Policy*, ed. Stanley M. Jacks (Cambridge, Mass.: MIT Press, 1971), pp. 87-100.

forms of training—structures which give government or quasi-public bodies the responsibility for planning and coordinating all manpower and postsecondary vocational education policies, while relying on decentralized subordinate organizations to achieve integration and coordination for localities or industries. While the integrity of apprenticeship is generally maintained, it is treated as one of several methods of manpower development.

Some foreign administrative structures appear quite inappropriate for the American system and make sense only if all training in industry, not just apprenticeship, is to be coordinated. Perhaps more appropriate to the U.S. situation would be an administrative restructuring that resembles the structure recently recommended for Ontario by a special task force on training in industry.<sup>12</sup> The Task Force recommended that technical colleges (Colleges of Applied Arts and Technology) establish "Employer-Centered Training Divisions" (ECTDs) which would provide advisory services and technical assistance to apprenticeship and other employer training programs, while apprenticeship continues to function voluntarily under the auspices of Joint Apprenticeship and Training Committees (JATCs) or other arrangements.

We find the creation of research and technical assistance agencies to be quite noteworthy. They provide an effective delivery system to assist employers and JATCs in improving apprenticeship and other training programs. Roomkin found considerable support for such an agency in the U.S., even among those employers with the strongest objections to formal programs and craft unions who traditionally opposed government intervention.<sup>13</sup> The experiences with such a service as the Manpower Development Service at Utah State University are very promising.<sup>14</sup>

#### INCREASED FLEXIBILITY OF TRAINING

It has been argued that apprenticeship could be expanded if we, like the Europeans, made it less rigid. In other nations greater flexibility has been achieved through: (a) adopting the modular system of training on the job, which will necessitate the development of tools of occupational analysis; (b) more appropriate and efficient organizing of on-the-job training and related instruction (e.g., block release time), which will require improved coordination between vocational schools and

<sup>12</sup> "Task Force on Industrial Training," *op. cit.*, pp. 109-120.

<sup>13</sup> Roomkin, "Improving Apprenticeship," *op. cit.*

<sup>14</sup> This unit was funded by the Office of Research and Development of the Manpower Administration and has been functioning since July 1, 1972. The objectives of the project are to explore with selected employers whether, how, and what kinds of training advisory services are needed, sought, and can be realistically provided to them under the auspices of a university.

employers; and (c) shortening of the length of the indenture, which must be done selectively so as to maintain whatever economic returns employers now get from lengthy indentures.

#### FOREIGN PRACTICES: FOR BETTER OR FOR WORSE?

Perhaps the most important lessons to learn from a study of foreign apprenticeship at the level of techniques is: The desirability of new departures in apprenticeship, be they foreign-inspired or otherwise, is extremely difficult to evaluate a priori. Many of the European techniques have been successful in their setting. What we do not know is whether the same degree of success could be achieved in the U.S. under the circumstances existing here. Since it is generally unwise to promote change for change's sake alone, it is preferable that a strategy of demonstration and experiment be designed to study systematically and adopt selectively proposals for change.

#### Policy Implications of Foreign Systems

At the level of principles or policy, foreign systems offer two important lessons: (1) apprenticeship can serve as a method of securing an orderly transition of youth from school to work; and (2) apprenticeship should be understood and developed within the context of all industrial training practices.

#### APPRENTICESHIP AS A YOUTHPower STRATEGY

To oversimplify, we face a significant choice of policy: We can continue to operate apprenticeship as a private system of training relatively minor portions of our youth as a matter of privilege in a limited number of occupations, striving, of course, for improvements in the quality of training. Or, we can recognize the need to bring the benefits of the apprenticeship method to larger numbers of youth, as a matter of right, in considerably more occupations. The choice is between apprenticeship programs for a few or youthpower programs for many.

At the present time, no consensus exists on the desirability of treating the work place as an extension of school. However, a great many people are bothered by the general problems of youth transition into adulthood, as the following would indicate: (a) the Panel on Youth of the President's Science Advisory Committee<sup>15</sup> has called for means

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<sup>15</sup> James S. Coleman et al., *Youth: Transition to Adulthood, Report of the Panel on Youth of the President's Science Advisory Committee* (Chicago: University of Chicago Press, 1974), p. 3.

of bringing youth into adulthood; (b) there is widespread interest and investment in career education and its implication for youth; or (c) the recent interest in the problems of youth shown by the Labor Department and Ford administration suggest that a new consensus on a youth strategy may be emerging.

The motivation for a youthpower strategy might come from two deficiencies in our current system. First, were it demonstrated that youth unemployment (which persists at eye-opening levels) causes disproportionate and deleterious consequences for the subsequent earnings and occupational growth of adults, new, large-scale programs would be justified. Second, due to demographic changes, there will be a sharp reduction in available young workers for several years to come, possibly highlighting the need for a large-scale apprenticeship model in order to get youth out of school and into productive activities sooner.

#### APPRENTICESHIP AND OTHER TRAINING IN INDUSTRY

In other nations, apprenticeship is viewed as a special type of training in industry. This permits policy-makers to consider the needs of apprenticeship programs alongside those of other training programs and to improve the allocation of limited financial and training resources among programs.

By contrast, Americans still tend to view apprenticeship as a special type of manpower program—one authorized by separate enabling legislation, supervised by specialized agencies of government, and relatively secure and independent of shifts in federal manpower policy. (Our categorical treatment of apprenticeship is in marked contrast to the de-categorized programs recently created under the Comprehensive Employment and Training Act.)

In this regard, the approach of Ontario is worth noting because of the similarities between the U.S. and Canada. In their recommendations, the Task Force opted for a continuation of apprenticeship as a minority system—with modest efforts to reform the existing system. Faced with what they considered the overwhelming rigidity of the existing system of private control over apprenticeship, the major emphasis was placed on institutional vocational training with the provision of a system of technical assistance to aid employers in improving all forms of training—including apprenticeship.

Without the consensus of, or crisis faced by, the European nations, we see little prospect of the adoption in the U.S. of training reforms more radical than those instituted in Ontario, as attractive as some of the other changes might appear.



## Conclusion

The recent strides made by other nations in reforming and modernizing their apprenticeship and other training systems are impressive. At the level of both techniques and policy, the foreign models offer a substantial number of ideas and insights, many of which appear to be relevant and some that may have direct application to the American scene. The provision of competent training advisory services to employers is especially meritorious.

In order to take full advantage of these ideas, we must: (1) obtain complete and accurate data on our existing system and how well it is functioning; and (2) undertake a systematic program to sift and test the most appropriate ideas from the foreign experience. The research program sponsored by the Manpower Administration's Office of Research and Development during the past few years provides a good beginning at filling the lacuna—but only a beginning; a bold program of experimental and demonstration projects needs to be initiated.

Before initiating either of the above proposals, however, another significant finding arising out of the foreign experience should be carefully considered: When contrasted with the recent developments abroad in the field of apprenticeship, the current efforts to reform apprenticeship in the U.S. appear to be much too narrowly focused and modestly conceived. What is really needed is a concerted effort to look at our *entire* system of training (industrial, vocational, manpower) such as has been done in Ontario, Ireland, Germany, Britain, and other nations.