

# The Concept of Higher Education

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The idea that higher education is an economic process is widely held. However, it is necessary to isolate more specifically what is considered to be higher education because in a broad sense any learning after receipt of a high school diploma could be classified as higher education. It is also necessary to provide some outline of the process involved in higher education since higher education as used here does involve a great deal more than just the teaching of students. Such an outline is important to provide a basis for relating the economic concept of public goods to higher education.

In this paper the concept of public goods is very briefly discussed first, with reference to higher education. Then, the institutional framework of higher education will be briefly outlined with the context in which the term higher education is to be used. Also, an attempt will be made to provide an overview of what is involved in the process called higher education. However, in providing this overview of the process, a conscious attempt is made to avoid the problem of defining the outputs of the

economic process because this is too complex problem and should be the topic of another paper. An attempt to discuss the public goods nature of the higher education process is made, but this must be somewhat limited until the outputs of higher education are fully discussed.

## 1. Higher Education as Public Good

One way in which public goods have been characterized is that external economies exist in the demand and supply of the particular goods. A public good is defined in large part by the degree of "externality" that exist. External economies can be classified as external economies of consumption and external economies of production. The concept of externality, applied to a given good, indicates that a change in production or consumption of that good will affect the utility or production functions for other goods. In a more general sense, the term externality is frequently understood as the creation of existing social benefits.

Higher Education, from the viewpoint of

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economist, has economic value. That is, higher education services produced by universities and colleges are both a consumption good and a investment good. If one pursues education because knowledge is desired for its own sake and satisfaction, then the educational services may be treated as a consumption good. If one obtains educational services solely because of their impact upon future occupational choice and earning, then educational services may be treated as an investment good.

The decision to enroll in an institution of higher education may be viewed by some as a current consumption decision, while others may view it as an investment decision. The desire of the family for a child's education or one's desire to participate in college educational experience are private needs for higher education. But the desire of other members of the community for the benefits of a well-educated citizenry constitute the public need for higher education. Higher education will usually be understated if the private provision for higher education is dominant. While both consumption and investment benefits may be realized by students and their families (internal effects), other persons may be affected (external effects). To the extent that these external effects are positive and sizable and that they satisfy public needs, the rationale for public provisions and subsidies for higher education is strengthened.

## **2. Institutions of Higher Education**

The term higher education can gradually be applied to any educational program which requires a high school diploma as a prerequisite to entering the program. Educational programs that do not have this prerequisite but which are for persons who have passed the "normal" age of high school students may be considered by some as forms of higher education. Thus,

vocational training schools are often considered as providers of higher education. Also, professional training schools could easily be considered as providers of higher education. Junior colleges or community colleges are also institutions which provide higher education.

College and university programs are almost universally considered to be programs of higher education but yet many activities of these institutions may not be considered as part of the process of higher education. For example, continuing education programs and research contracts entered into by colleges and universities may not meet the meaning of the term higher education. Some government agencies have programs similar to the continuing education programs and these may not be widely considered as higher education programs. Also, research consulting firms perform research under contracts just as do colleges and universities. In fact, some research contracts are issued on a competitive bid basis and a university may bid on exactly the same contract as a private business firm which performs no teaching function at all. Thus, there is no clear distinction as to what constitutes higher education when one looks at the institutions of higher education. Continuing education program and research are an integral part of colleges and universities. These programs are considered to be within the functions to be performed by institutions of higher education.

## **3. Educational Activities**

Teaching, research and service are functions of major universities, but one should not confuse functions with outputs. As functions, teaching, research and service denote groups of activities undertaken by the institutions. These activities produce economic outputs or economic goods. Research may produce an intermediate good which is used with teaching activities to produce

a final good.

The division of activities into the three functions does follow definite patterns in institutions of higher education. However, these patterns do not appear to be based upon any analysis of the outputs resulting from the activities. The logic of classification flows from a historical institutional setting. From the beginning of institutions of higher education in the United States as well as Korea, degrees have been granted to students who meet certain requirements of the faculty and the administration of the institution. The activities associated with this process of students obtaining degrees has traditionally been classified as the teaching function. Faculty members and students may engage in activities that produce new knowledge and which could therefore be called research, but as long as it does not involve producing the new knowledge under a special arrangement, the activity should be classified as teaching. The fact that most other teaching activities involve the dissemination of existing knowledge while these particular activities result in the creation of new knowledge makes no difference in the classification of the activities.

The providing of new knowledge to the general public free or at low cost in the area of agriculture may be one of the major activities classified as public service. The new knowledge generated by the faculty is clearly of practical value to the farm community and the institutions accept a responsibility to distribute this knowledge to those who could use it for their own advantage. In the United States the distribution of such knowledge often took form of letters answering questions or short reports which could be duplicated and generally distributed. However, sometimes the distribution of such knowledge was accomplished by farm agents conducting meeting on or off the campus. These meeting were not much different from the classes con-

ducted on campus for degree credit in agriculture and sometimes faculty members were used to make the actual presentation. Such meeting became known as continuing education and over time have been broadened in scope to include every professional area and field of business and government activity. With the expansion of scope, many of the programs of continuing education became even more similar to the course taught for degree credit. However, these courses as long as they did not involve degree credit have been considered as continuing education and are classified as service activities of the institution rather than teaching activities.

#### **4. The Public Interest in Higher Education**

Although a full discussion of the public interest in higher education cannot be carried on until the outputs of higher education are defined, it may be useful to state some of the more obvious sources of public interest in the process of higher education. The functions or activities of higher education do not provide a basis for categorizing the different types of public interest because of the interrelationships cited above with respect to these activities. However, from the above discussion of functions and activities of institutions of higher education, it is possible to adopt a generalization about the outputs of higher education which may be useful in considering the public's interest in the process. All higher education activities have to do with either the creation and/or the distribution of knowledge. Thus, it is appropriate to consider that higher education in general involves the production and distribution of knowledge.

##### **External Economics of Production:**

The production of and distribution of knowledge clearly may effect the productivity of

particular resources and of particular production processes. Therefore, external economics of production may exist with respect to higher education. However, it must be remembered that increased productivity of a resource is not always the same thing as an external economy. The market system may internalize the increased productivity. As an example, an individual as a human resource becomes more productive by obtaining certain knowledge from an institution which distributes this knowledge. The individual may have paid the institution for the knowledge received and will receive a higher salary in the human resources market as a result of having the knowledge. No external economy of production exists if all of the payments in the market system reflect the higher level of productivity created by the knowledge in question. The business firm pays the human resource based upon the productivity of the resource, and the person pays the institution for the knowledge based upon the expected increase in pay from the business firm.

It is workings of the market system that determine whether or not an external economy exists. The discovery and distribution of new knowledge which increase productivity of any resource may be a condition of an existing external economy, but the external economy only exists if the discoverer of the knowledge is not fully compensated for the discovery. If research is undertaken under a contract or grant and discoverer may be paid for the research according to the value of the knowledge discovered, this situation does not necessarily constitute an external economy because the research does not guarantee the production of valuable new knowledge. Risk and uncertainty exist so that one would expect the payment to the research to be sometimes more and sometimes less than the market value of the knowledge discovered. An external economy may exist when

the payment to the research is less than the market value of the discovered knowledge.

If knowledge discovered under a grant or contract does not become the property of the grantor or contractor, too little will be offered in the market system to finance knowledge generating research. Thus, restricting the flow of new knowledge is a necessary condition to internalize the benefits of creating new knowledge in the market system but any restriction of knowledge is contrary to the operation of purely competitive markets. The end conclusion is that all creation of new knowledge is a public good. The market system will only generate the funds necessary for research if restrictions on the distribution of the new knowledge exist and if the market system will not be purely competitive so that the new knowledge created will not be efficiently used from a public point of view.

#### **External Economies of Consumption:**

External economies of consumption may also exist as a result of higher education being produced. More specifically, joint satisfaction resulting from the consumption of higher education may exist with respect to the production and distribution of knowledge.

The distribution of knowledge to human beings may make these individuals better able to cope with the complexities of society as well as making them more productive in the economic system. Being better able to cope with the complexities of society carries with it the idea that these recipients of higher education are interested in and can help solve some of the problems of individuals living in relationship to others. Thus, society as a whole and the living of all members of society ought to be better as a result of some having directly obtained knowledge in the process of higher education.

Generally, the individual with this knowledge obtained in higher education has few, if any,

chance in the market system to be paid for the benefits provided to society. Therefore, the individual cannot be assumed to be willing to pay the institution of higher education for this aspect of the education process, because the market system has no normal channels for paying the person to obtain the knowledge.

The making of certain required courses in the obtaining of degrees is one method used by institutions of higher education to insure that a certain amount of this type of knowledge is distributed in the process of higher education. The institution attempts to force the purchase of certain types of knowledge which the market system would not provide an incentive to purchase but which has public value.

Joint satisfaction of the altruism type may also exist. Since altruism does not depend upon any characteristics of the product being distributed, there is no necessary reason for such an external economy to exist. However, some individuals in society do appear to be willing to finance in part the higher education of others without any apparent direct or indirect return for themselves. The likelihood of someone having satisfaction from knowledge that someone else has been distributed knowledge seems to be so strong that one can conclude that the institutions believe altruism exists.

### **External Diseconomies of Production and Consumption:**

External diseconomies may exist with respect to the production and distribution of knowledge. However, the citing of examples is difficult. In recent years in the United States a few corporations which used to require college degree for persons entering their management training programs have started looking among existing employees for training programs without any requirement of a college degree. This does not indicate the existence of external diseconomies. It does, however, indicate a change in the

evaluation of some with respect to the importance of institutions of higher education in the process of distributing knowledge which adds to the productivity of the human resource.

Higher education program leading to lower productivity in economic systems or to less ability to cope with the complexities of society are difficult to visualize. However, the high rates of nervous breakdown on campuses may be an example. Whether the educational process is the cause of these breakdown is not certain. It may well be that these individuals would breakdown in any position involving personal stress, but it may also be valid to argue that these individuals end up with lower productivity than they would have had if they did not attempt to enter any program of higher education.

Also, specific knowledge may cause dissension in society or may be contrary to moral or other values that exist in society. Thus, external diseconomies are possible. Student riots and student streaking may have caused some individuals in society to believe that institutions of higher education lead to unacceptable standards and lower one's ability to cope with the complexities of society.

The possibility of prejudice existing with respect to higher education must be acknowledged along with the possibility of altruism. The idea that some individuals are not worthy or capable of obtaining more knowledge has long existed. Prejudice may come from a lack of belief that external economies exist. However, nothing can be cited to prove that prejudice does not exist. It is possible that an individual experiences a reduction in total satisfaction from knowing that resources have been used to provide knowledge to unworthy individuals even when these individuals have paid the full cost of employing the resources.

## 5. Concluding Remarks

In any case, the existence of external economies is much more likely than external diseconomies. Thus, it seems reasonable to assume that higher education is associated with public goods as opposed to public bads. Also, there seems to be strong case for assuming that

external economies do exist for teaching and service activities and definitely exist for research activities. Thus, institutions of higher education are involved with public goods. The public, therefore, has an interest in using non-market mechanisms to encourage the production, packaging and distribution of knowledge by institutions of higher education.