

Occasional Paper No. 46

National Center for the Study of Privatization in Education

Teachers College, Columbia University

**POST-COMPULSORY ENTITLEMENTS: VOUCHERS
FOR LIFE-LONG LEARNING***

Henry M. Levin

May 2002

Abstract Educational vouchers in the form of post-compulsory entitlements (PCE's) are proposed as a method for financing life-long learning. These entitlements would be provided to all persons after they complete compulsory education and could be used for a wide variety of approved education and training options. PCE's would be composed of both grants and income-contingent loans, the latter payable from the higher incomes generated by education and training investments. It is argued that the comprehensiveness and flexibility of the entitlement mechanism would improve both equity and efficiency of education and training. Issues of finance, regulation, and support services are discussed as well as the contention that the GI Bill for Veterans' Educational Benefits provides a useful historical experience for considering PCE's.

* This paper was presented at the Conference on "Financing of Further Education and Lifelong Learning," FiBS-Conference 2002, (April 8-9, 2002), Cologne, Germany. The author wishes to thank Clive Belfield for his helpful suggestions. The author is the William Heard Kilpatrick Professor of Economics and Education and Director of the National Center for the Study of Privatization in Education, Teachers College, Columbia University. HL361@columbia.edu

The Occasional Paper Series of the National Center for the Study of Privatization in Education (NCSPE) is designed to promote dialogue about the many facets of privatization in education. The subject matter of the papers is diverse, including research reviews and original research on vouchers, charter schools, home schooling, and educational management organizations. The papers are grounded in a range of disciplinary and methodological approaches. The views presented in these papers are those of the authors and do not necessarily represent the official views of the NCSPE.

If you are interested in submitting a paper, or wish to learn more about the NCSPE, please contact us at:

NCSPE, Box 181, Teachers College, Columbia University,
525 W. 120th Street, New York, NY 10027
tel: (212) 678-3259 fax: (212) 678-3474
ncspe@columbia.edu www.ncspe.org

1. Introduction

Virtually every country has a coherent system of compulsory education in which the structure, purpose, and financing are clear and consistent. Even with regional and local differences and the presence of independent schools, there is an overall order and logic to the institutional structure and financing of compulsory schooling. In contrast, postcompulsory schooling is characterized by large differences in purpose, function, duration, sponsorship, and financing of educational opportunities. Post-compulsory schooling includes all of the formal learning opportunities that are provided by government and the private sector after compulsory education is completed such as colleges and universities, short training courses, apprenticeship programs, retraining institutes, and so on. That these offerings are sometimes referred to as a system of recurrent education or lifelong learning is a highly imaginative use of the term "system".

It is no puzzle that post-compulsory training and educational opportunities are so diverse in purpose, origin, sponsorship, and financing. Each type of education and training arose for different reasons and was initiated by different sponsors in both public and private sectors. The result is that what we might think of as post-compulsory educational and training opportunities are varied in almost every respect. Much of this variety makes sense in reflecting the diversity of opportunities that address different societal and individual needs as well as the historical conditions under which they arose.

The multitude of forms of institutional sponsorship and financing arrangements can lead to both inefficiency and inequity and great inconsistencies in funding among offerings with similar goals. The focus of post-compulsory educational policy is determined by the mix of goals of the institutions offering specific types of education and training and their unique methods of finance rather than on the needs and capabilities of the clientele who

must choose among them. That is, these offerings have purposes that are based more upon the histories of the institutions or the government branches that sponsor them than on the demands of the post-compulsory population or social priorities. Levels of subsidy and enrollments often depend upon institutional traditions and the political power of training and education sectors to obtain government subsidies rather than on fairness and efficiency across different types of education and training.

1.1 In major respects educational vouchers seem to be more closely suited to postsecondary education than to the elementary and secondary levels. One of the key arguments of supporters of educational vouchers is their potential role in stimulating greater diversity of offerings and choice. Opponents point out that elementary and secondary education require some uniformity for the common preparation of all students for the knowledge requirements and values of citizenship. Indeed, the compulsory nature of the lower levels of education is to provide a common experience required for democratic participation. But, at the end of compulsory schooling these goals are expected to be met, and the arguments for choice outweigh those for uniformity. Thus, it is somewhat surprising that the focus of educational vouchers has not become prominent beyond elementary and secondary levels. The purpose of this presentation is to present the concept of post-compulsory entitlements, a voucher system for financing education and training opportunities beyond secondary school. The spirit of the presentation will be to provide a basis for further discussion rather than a specific plan or design.

In contrast, to the supply orientation of most post-compulsory education and training, post-secondary entitlements provide a demand-oriented system of finance. Postcompulsory entitlements or PCE's refer to the provision of a government-sponsored

account for every individual that can be used for education and training purposes in the post-compulsory period. A basic entitlement of grants and loans would be stipulated for each individual to use for further education and training. This amount could be applied to any education or training investment approved by the government. As I will show below, PCE's have major advantages over the existing system in that they can be designed to be more equitable and efficient by building on their inherent comprehensiveness and flexibility.

Post-secondary or post-compulsory entitlements are not a new idea. Almost thirty years ago the U. S. National Institute of Education sponsored research for proposing voucher-type funding for post-secondary education. The Organization for Economic Cooperation and Development (OECD) in Paris and the U.S. government supported various forms of this work and sponsorship of two conferences in 1980 and 1983 featuring entitlement-financing.¹ The U.S. project even focused on the development of a detailed design for such entitlements. What follows draws heavily on the earlier discussions and debates. It is also important to note that this brief introduction to PCE's can only provide a skeletal understanding of the concept and its application. More detailed discussions can be found in the earlier publications. Application of the PCE approach to specific countries will require that the concepts be translated into specifics that meet the needs of those entities.

¹ See H. M. Levin "Vouchers and Social Equity." *Change*. (October 1973), 29-33 for an early version. The report for the U.S. research project is H. M. Levin, H. M. Levin, *Post-Secondary Entitlements: An Exploration*. In N. B. Kurland, Ed., *Entitlement Papers, NIE Papers in Education and Work: Number Four* (Washington, D.C.: National Institute of Education, U.S. Department of Health, Education and Welfare, 1977). The OECD version is summarized in H. M. Levin, "Individual Entitlements" In H. M. Levin & H. G. Schutze, Eds., *Financing Recurrent Education* (Beverly Hills, CA: Sage, 1983), pp. 39-66. For a related concept, see G. Rehn, "Individual Drawing Rights," In H. M. Levin & H. G. Schutze, op. cit., pp. 67-80. A more recent discussion of financing arrangements that are consistent with Post-Compulsory entitlements is H. M. Levin, "Financing a System for Lifelong Learning," *Education Economics*, Vol. 6, No. 3, (1998), pp. 201-217.

2.0 What Are Post-Compulsory Entitlements?

Every person would become eligible for a financial entitlement by the government for further training and education at the end of the compulsory schooling period. These entitlements could be applied to further education and training in any program that meets the eligibility requirements set out by the government. Such programs could be sponsored by governments, nonprofit agencies including trade unions and religious institutions, or profit-seeking firms. They could include virtually all of the existing postsecondary institutions such as colleges, universities and training programs, as well as apprenticeship and on-the-job training programs. It is important to note that not all education and training would be eligible for entitlement grants, although most would be eligible for entitlement loans.

Government would set out criteria for both eligibility of particular education and training offerings as well as the size of the entitlement for different groups of individuals. Institutional eligibility to redeem student entitlements would be based upon standards such as educational and training content, financial accountability, procedures for handling disputes with participants, and the provision of sufficient and accurate information on program content and student success (e.g. program completions, employment status of graduates).

The size of entitlements would depend upon PCE goals. Equity aims suggest larger entitlements for those from "disadvantaged" backgrounds. Entitlements could be divided between grants and low-interest or income-contingent loans.² In general, the grant portion would be higher for those who came from low-income families and for study in fields considered to have a high social priority. Students could use the entitlement for any combination of eligible training or education programs up to the maximum amount of the

² See H. Oosterbeek, "Innovative Ways to Finance Education," *Education Economics*, 6(3) (1998), pp. 219-51.

entitlement. Also, the entitlement could be used over a considerable period of time both prior to entering the workforce and during the working period. Unused portions of any grant entitlement could be permitted to accumulate interest as an incentive for the participant to consider carefully the recurrent and continuing education and training possibilities that will exist over the life cycle. Unused portions could be redeemed at retirement age as part of the social security retirement system.

Most government subsidies of education and training programs would be accomplished indirectly through the entitlement program rather than through direct institutional subsidies. That is, programs would compete for students and their entitlements, and new offerings that meet eligibility standards would arise in response to emerging education and training needs and demands. Ideally, existing sources of public funding would be coordinated into one overall system of financial support to replace the present confounding diversity of funding programs.

A public information system would be developed that would make entitlement recipients aware of particular education and training programs as well as opportunities that are available in different fields. Much of this could be placed on an "PCE website" that would not only provide information to entitlement holders on the status and size of their remaining entitlements; but would also provide access to all education and training opportunities by field and location of training as well as specific information on the programs and their success. Systematic provision of information would also keep potential providers of programs informed about which areas are in high demand and which are declining.

2.1 Summary of Post-compulsory Entitlements

To summarize, a system of post-compulsory entitlements or PCE's would have the following general properties.

1. Public support for postsecondary education and training would be provided to students in the form of a promissory note or entitlement.
2. The PCE would obligate the government to provide a specified amount of grants and loans that could be used for participating in education and training programs that met eligibility requirements.
3. The PCE could be used over the lifetime of the student, and the unused portion would draw interest.
4. The amount of the entitlement and its composition between grants and loans would be determined by the family resources of the student and other pertinent factors such as the social benefits and priorities of training (as opposed to the private benefits which should be borne by the individual).
5. Any education or training program approved as eligible by the government could accept and redeem entitlements for cash from the government treasury. Such institutions would probably include most existing colleges, universities, training institutes and training programs of trade unions, government, and industry. New programs would be eligible to participate by meeting specified eligibility requirements.
6. Government would sponsor an information and regulatory agency that would provide data for participants on training alternatives and their costs as well as program descriptions and job prospects among different occupations and training specializations. The agency would also set out the specific eligibility regulations to determine both the conditions of student and trainee participation on the one hand, and the requirements that must be satisfied for program eligibility on the other.

3. Evaluation of PCE's

Obviously, there is no point in considering a sweeping change in the financing of postcompulsory education and training unless there are substantial benefits to doing so.

PCE's are a form of educational voucher. In studies of educational vouchers at the elementary and secondary levels we have suggested four criteria for comparing them with more traditional forms of educational finance: freedom of choice; productive efficiency;

equity, and social cohesion.³ On the basis of their greater comprehensiveness and flexibility, it will be argued that PCE's have the potential for much greater freedom of choice, higher productive efficiency, and more equitable participation and outcomes than the existing methods of organizing and providing post-compulsory education. We will not address social cohesion because there is wide agreement that this is a principal purpose of compulsory education rather than of post-compulsory experiences.

3.1 Comprehensiveness

PCE's replace the present complex system of financing post-compulsory educational and training opportunities with a unified financial approach. On the basis of the PCE system, each individual is certified for a specific amount of entitlement eligibility.

Continuous accounting on the use of the entitlement and the remaining amount is provided through easily accessible records. The amount of government subsidy is shifted from the politics of institutional subventions that may be highly inequitable across different types of institutions and programs. PCE's enable a complete integration of existing forms of post-compulsory education and training as well as emerging ones, since the entitlement is neutral with respect to these alternatives, although a supplement could be added to an entitlement to study or train in areas of unusually, high social priority.

Under more conventional forms of financing, educational and training institutions can only establish programs with government support by getting direct financing commitment from the government, an act based upon political persuasion rather than student demand. This means that the provision of new opportunities that allow government financial assistance must depend upon the acquisition of government support, creating

³ H. M. Levin, "The Public-Private Nexus in Education," *American Behavioral Scientist*, Vol. 43, No. 1

cumbersome requirements for establishing new offerings and a lack of government support for private and nonprofit sponsors. In contrast, the entitlement approach enables adults to use their education and training subsidies directly, whether for traditional university education or any other eligible post-compulsory alternative. The financing mechanism is generally neutral with respect to types of education or training, so that new offerings can be considered on their own merits rather than on whether or not they fit a more traditional system of direct institutional subsidies. Entitlements can provide grant subsidies to target training that has social externalities (particular benefits to society beyond those to the individual), while avoiding the more "piece-meal" approaches that characterize subsidies in the present system. And, they can easily encompass future alternatives that are not yet on the drawing board. The comprehensiveness encompasses the possibility of many different paths to lifelong learning as does the flexibility of PCE's.

3.2 Flexibility

The PCE maximizes the flexibility and adaptability of further education and training since the subsidy can be used for any combination of training and educational opportunities selected. Flexibility in timing especially encourages a lifelong learning approach "ondemand" as needed. The entitlement can be partially utilized before entering the labor force and partially utilized intermittently during the individual's career. Or, the individual can apply the entitlement to a university education immediately following completion of secondary school. Alternatively, the use of the PCE could be deferred for several years until after the recipient establishes a career. All of these patterns can be accommodated without special arrangements, and the possibility of interest payments on the unused portion of the entitlement neutralizes the pressure to use it immediately.

This flexibility also extends to the supply of offerings. Given the neutrality of funding, the incentives to undertake particular types of education and training will be determined by demand patterns. Of course, as we will note below, the government can increase entitlement grants for certain types of education and training if it is believed that these have a higher social priority. New offerings can enter the marketplace as long as they meet the eligibility requirements. This means that new approaches are likely to arise more quickly and creatively in the marketplace than when left to existing subsidized institutions that have a "monopoly" on particular types of training. There will be a strong pressure to meet the needs of students and trainees to attract adequate enrollments.

Additional flexibility is afforded by the fact that specific policy goals with respect to equity or special educational needs can be targeted in a more effective manner than with existing subsidies to institutions. Equity considerations among different populations or regions can be addressed through providing compensatory PCE's that will promote education and training for groups that have traditionally been underrepresented or have received the least investment. The entitlement can be "pro-poor" in providing more resources for education and training to those who have the least ability to finance preparation for their own careers and who lack other advantages that enhance adult opportunities. This combination of comprehensiveness and flexibility can be related to the criteria of freedom of choice, productive efficiency, and equity.

3.3 Freedom of Choice

With respect to freedom of choice, it seems obvious that PCE's will provide a larger and more varied and accessible set of options than the traditional approaches, dominated by institutional finance. Both the comprehensiveness of the PCE approach and its flexibility

mean that providers will have incentives to study market potential carefully and to provide alternatives in both variety and form that meet participant demand to a much greater degree than the present system. Whether part-time or full-time or classroom or distance education or area of study and training, a market-based system is poised to respond with more options than a politically-based system. Freedom of choice depends on the variety of alternatives and their accessibility, but also on their responsiveness to demand. On all of these, a market is likely to be more responsive.

3.4 Efficiency

One can also make a strong argument that a post-compulsory system of education and training that is funded through PCE's will be more efficient than the present system, provided that social externalities are addressed. The efficiency claims arise from the comprehensiveness and flexibility referred to above as well as the competitive incentives of the marketplace. . Comprehensiveness means that it is easier for the student to move from one type of training or education to another and to take the combination that is desired. It also means that market competition among suppliers will reduce overlap and duplication, and, particularly, offerings of lower quality. Flexibility means that market response will be higher on both the demand and supply sides with newer forms of education and training and expansion of high-demand subjects and types responding quickly to client pressures rather than being subject to institutional constraints and political obstacles. Finally, the fact that students will be using their own valuable resource, a PCE which has many alternative uses, means that PCE recipients will have incentives to make better choices and to be more demanding of themselves and those providers to whom they allot their PCE's. These incentives are muted under present systems of finance.

As I will suggest below, market solutions do not necessarily account for external benefits such as equity in participation. But, these issues can be addressed in the design of the system such as adjusting PCE's according to student need and merit. Other social benefits can be addressed through regulation and information. With respect to costs, it would appear that the costs of a unified system of post-compulsory finance would be more efficient than one that requires many government agencies to establish sources of funding for separate and overlapping services. Although the public costs of a voucher system at the elementary and secondary level were found to be high, this was primarily because of the substantial costs of publicly-borne transportation costs and the additional costs of absorbing students in private schools who would be eligible for the government subsidy.⁴ These cost factors are not features of a post-compulsory system of education and training since adults can provide their own transportation and since many of the present subsidies would be replaced by income-contingent loans rather than grants.

3.5 Equity

It is important to note that traditionally, more-advantaged persons have been overly represented in universities and, especially, in the most lucrative fields of study, and that further education and training also has favored those from relatively advantaged social origins.⁵ There are three reasons that the PCE approach, generally, and its comprehensiveness and flexibility, specifically, will increase access to productive investments

⁴ H. M. Levin & C. Driver, "The Costs of an Educational Voucher System," *Education Economics*, Vol. 6, No. 3 (1998), pp. 201-17.

⁵ See for example, OECD, *The OECD Jobs Study* (Paris: OECD, 1994). In the U.S. the proportion of persons with university education who take adult education courses is about three times that of those who fail to complete secondary school according to the National Center for Education Statistics. See K. Kim & S. Creighton, *Participation in Adult Education in the United States: 1998-99*, (Washington, D.C.: National Center for Education Statistics, 2000). At <http://nces.ed.gov/pubs2000/qrlyspring/6life/q6-1.html>.

in education and training for the less-advantaged. The fact that each person will become aware that they will be awarded an entitlement for post-compulsory education and training will increase the likelihood that they will use this award. It will also raise motivation to study harder in the compulsory period of schooling to take advantage of later opportunities. Under the present approach, only those persons who have the resources for further educational and training opportunities--generally the more advantaged and better-informed--are more fully aware of those options and secure in their ability to finance them. Thus, postcompulsory options will be an accepted fact for everyone with an incentive to prepare and take advantage of them.⁶

Second, under PCE's there will be incentives by providers to create education and training choices that will be more accessible and responsive to the needs of those who were traditionally underrepresented, as providers seek to attract the "new clientele." Government, not-for-profit, and for-profit providers will be challenged with how to capture potential increases in enrollments, in many cases, among persons who undertook little or no postcompulsory education and training in the past.

Third, under a system of post-compulsory entitlements, it is possible to tailor the size of the entitlement and the conditions of its use to favor persons from less advantaged backgrounds. In contrast, existing systems of post-compulsory finance provide subsidies to institutions according to educational and training costs, often the programs most accessible to those who are better off (such as the most intensive and remunerative fields of study in the University and the most prestigious and costly universities).⁷ To the degree that PCE;s

⁶ T. Kane implicates inaccurate expectations and lack of planning by parents as one of the causes of low participation rates for the less advantaged. See his "Assessing the U.S. Financial Aid System: What We Know, What We Need to Know," Ford Policy Forum, 2001 (Cambridge, MA: Forum for the Future of Higher Education, 2001), pp. 25-34.

⁷ See L. L. Leslie & P. T. Brinkman, "The Economic Value of Higher Education (New York: Macmillan,

provide grant subsidies, they will be determined largely on the basis of need rather than on the basis of the cost of educational options with income-contingent loans being available to pay any balance of costs.

4.0 Design Issues

In order to implement a system of PCE's, a number of design issues must be addressed. Evaluation of educational vouchers for use at elementary and secondary education levels has focused on three types of policy tools for such design: finance, regulation, and support services. Regulatory issues include such matters as eligibility of participants and providers, and support services include information and adjudication. Each will be discussed briefly, although more information can be found in other sources.⁸

4.1 Finance Issues

Finance issues include the issue of public subsidy, sources of funding, size of entitlements and composition between loans and grants.

4.11 Rationale for Subsidies

In his classic treatise on the role of the state in education, Milton Friedman has argued that the benefits of post-secondary education are mostly vocational in nature and are captured by the individuals receiving the education rather than being broadly distributed to society as external benefits.⁹ Accordingly, Friedman concluded that the individual and family should pay for the educational investment rather than society. In contrast to Friedman's

1988), pp. 107-22.

⁸ Extensive discussions are found in the sources in Footnote 1.

⁹ M. Friedman, "The Role of Government in Education," In *Capitalism and Freedom* (Chicago: University of Chicago Press, 1962), pp. 85-107.

position, the argument for public support for post-compulsory education generally rests on the view that there are benefits to society as a whole beyond those to the individuals being educated. Friedman accepted this view for elementary and secondary education, but found no parallel role for “higher schooling”. At the earlier levels of education, a major purpose is to mold a society that is equitable and democratic and shares a common set of institutional values. Friedman argued that the costs of post-secondary education should be paid for by the beneficiary of the education through taxation on a portion of the additional lifetime income that is conferred by such education and training.¹⁰ He suggested the use of incomecontingent loans that can be paid during one’s working life through the income tax.

However, a strong case can be made that post-compulsory education has external benefits for society as a whole that merit subsidies.¹¹ Certainly, equity considerations suggest subsidies to encourage those from less-advantaged backgrounds to participate more fully in post-compulsory education. Greater social equity is an important component of a democratic society that yields social benefits in the provision of fairness and in reducing the potential for conflict as well as diminishing the demands for publicly-supported health, public assistance, and other services. In recent years the many sources of social benefits that have been asserted for post-compulsory education have been augmented by endogenous economic growth theory in which the ability to benefit from improved technology and work organization is heavily tied to the aggregate capabilities of the workforce. According to endogenous growth theory, continuous educational investments beyond compulsory

¹⁰ See H. Oosterbeek, footnote 2. One version of this is the graduate tax in Australia. See B. Chapman, "Conceptual Issues and the Australian experience with income contingent charges for higher education," *Economic Journal* **107** (1997), pp. 738-51.

¹¹ For example, see L. L. Leslie & P. T. Brinkman, *The Economic Value of Higher Education* (New York: Macmillan Publishing Company, 1988). H. R. Bowen, *Investment in Learning: The Individual and Social Value of American Higher Education* (San Francisco: Jossey-Bass, 1977). An extremely comprehensive recent summary is found in W. McMahon, "Conceptual Framework for the Analysis of the Social Benefits of Lifelong Learning," **6**(3) (1998), pp. 309-346.

education may benefit the entire society by generating technological advances through a more adaptable workforce that is able to accommodate new technologies, organization, and work methods.¹² Post-compulsory education and continuing education enables societies to capitalize quickly on new knowledge through a higher level of general technical literacy, information flows that provide quick access to the latest developments, and widespread research and inquiry that can generate technical advance.

The foregoing does not mean that every post-compulsory education and training activity should be subsidized by PCE grants, nor does it suggest the level of subsidy. Individuals often find it lucrative to undertake additional education and training, even in the absence of government subsidies.¹³ In those cases, costs are more than compensated by substantial increases in earnings. Many enterprises also face substantial financial incentives to provide training to adapt to new production and market realities with high returns. Subsidies through grants should be provided only in those situations where there are compelling social externalities or social benefits. An argument for general subsidies for some portion of post-compulsory education and training costs can be made on the basis of endogenous growth theory. Unfortunately, the empirical magnitude of this effect is difficult to calculate because the effects are so widely diffused. Equity arguments suggest creating greater subsidies for those from less-advantaged backgrounds to compensate for lower capacities of families to invest in human capital. The need to accelerate adjustment to emerging or future labor force demands from shifts in economic activity (e.g. caused by globalization) might also be an argument for subsidies for particular types of training or for particular regions suffering from unemployment or underemployment. Some assessment

¹² For a discussion and survey of related literature see P. M. Romer, "The Origins of Endogenous Growth," *Journal of Economic Perspectives*, **8**, No. 1 (1994), pp. 3-22.

¹³ See the extensive summary of private returns to education and training investments in E. Cohn & J. T. Addison, "The Economic Returns to Lifelong Learning," *Education Economics*, **6**(3) (1998), pp. 253-308.

must be made for each country in determining subsidy policies based upon unique social benefits in excess of the benefits to the participant which would result in grant entitlements for particular types of training or for persons in particular regions or from particular social circumstances. These subsidies would be reflected in the grant portion of the entitlement.

4.12 Sources of Funding

The underlying idea for the finance of PCE's is to take the many piecemeal provisions of funding and to combine them into a more comprehensive approach. This could be done using a broad-based tax approach such as that of income, sales, or value-added taxes. Arguments have been made for a payroll tax¹⁴, because educational leave and educational sabbaticals might be an important component of post-compulsory and lifelong learning. Such a tax is usually levied on both employers and employees. However, because it is a tax on wages and salaries (often with a ceiling on the level that is taxed) and omits taxation on dividends, interests, rents, and other forms of non-labor income, it is a highly regressive tax.¹⁵

The challenge is how to take many different tax and expenditure sources and to combine them to as great a degree possible into a single fund for use for entitlements. These sources might include taxes supporting present subsidies for universities, vocational training and retraining, and even unemployment compensation. Surely it is better to use a portion of the latter funds as a preventative device to prepare those whose industries or occupations are declining or who need skill upgrading to maintain employment rather than waiting until they have lost employment and must be supported while looking for work. Further, the fact that

¹⁴ For example, H. E. Striner, *Continuing Education as a National Capital Investment* (Kalamazoo, MI: Upjohn Institute for Employment Research).

¹⁵ For example, see the empirical analysis of tax incidence in J. A. Pechman & B. A. Okner, *Who Bears the Tax Burden?* (Washington, D.C.: The Brookings Institution, 1974).

individuals can decide when to use their entitlements for this purpose means that many will make that adjustment in advance of job loss as they observe the possibility of preparing for expanding segments of the economy.

Overall, the solution is to consolidate to the greatest degree possible the various sources of funding of existing post-compulsory opportunities into a comprehensive system of finance. This process is likely to be one that requires considerable negotiations with the present sources of funding and programs, and the transition may have to be done in stages, by types of education and training. For example, the university sector might be transformed initially with entitlement funding, followed by agreements with other sectors to convert part or all of institutional subsidies to entitlements. At the same time, the use of income contingent loans for all eligible investments will provide access to capital for individuals who have financial need above the grant portions of their entitlements.

4.13 Size of Entitlements

A PCE will be provided for each person who reaches the post-compulsory period. The PCE will be composed of two parts, a grant and a loan capability. The grant portion will be a direct subsidy for the individual based upon a universal criterion, family resources, and special considerations on course of study. With respect to the universal criterion, each society needs to place a value on the social benefits of post-compulsory education, that is the benefits to society beyond those received by the individual.¹⁶ This amount will be given to all PCE recipients as an entitlement grant. In addition, an equity adjustment would suggest that those with families with the least resources by virtual of parental education, income and wealth would be eligible for larger entitlements to compensate for the lower capacities of

¹⁶ See W. McMahon (1998), footnote 11.

their families to invest in human capital.¹⁷ Finally, specific types of education and training investments that have particular social benefits such as those accelerating the transitional training or retraining from declining to rising occupations and industries or investing in training of local populations for economic development in regions of high priority might all be a basis for larger grant entitlements. In the cases of the universal and equity criteria, the grant portion would be built into the PCE. In the latter cases of special social priority, the grant would be added to the PCE if the participant undertook the specialized education or training that carried the extra subsidy.

In addition, participants would be eligible for income-contingent loans for all approved investment categories and expenses. Such loans would be repaid out of the higher income generated over the individual's lifetime.¹⁸ In this way, every participant would have the capability of investing in further education and training with no time urgency since the built-in grant would generate interest for the unused portion, and the loan would have no cost until it was obtained and used to generate additional income. Clearly, the exact parameters for the scheme would have to be established by each society.

4.2 Regulatory Issues

Regulations for operation of the PCE system would be embodied in the laws establishing the system as well as a government regulatory agency that would administer the law. Among regulatory functions, the law would establish both the eligibility of participants

¹⁷ Kane notes that in the U.S. after controlling statistically for differences in examination scores, high school grades, and schools attended, much of the difference in attendance patterns in higher education in favor of higher income families remains. See T. Kane, "Assessing the U.S. Financial Aid System: What We Need to Know," Ford Policy Reform 2001 (New York: The Ford Foundation 2001), pp. 25-34.

¹⁸ See footnotes 10. Income-contingent loans would have to be restricted to an age range for each type of education and training that would provide an adequate time horizon to recoup the loan from the returns on the investment.

to receive the vouchers and the conditions under which they could be used. . It would determine the size of the entitlement and the division between loans and grants according to the criteria set out by the law. The agency would initiate and maintain detailed PCE accounts for each participant with detailed information on account status that would be accessible to the participant through the Internet.

Based upon the law, the agency would also determine the eligibility of educational and training institutions to receive PCE's in payment for services. The agency would invite applications from providers to evaluate and certify their eligibility. Providers would be monitored through periodic reporting requirements as well as inquiries in response to complaints or reported irregularities. Financial accountability and information reporting by eligible providers would be mandatory.

4.3 Support Services

The regulatory function would also be responsible for the provision of two support services to assist the PCE approach to function efficiently, an information system and an adjudication system. An information system would be designed and operated by the agency to collect and disseminate accurate information to both individuals and institutions on educational and training alternatives. This would probably best be done through an extensive website.¹⁹ The information system would contain data on each provider including the length, type, and cost of training; the curriculum, delivery system, and scheduling options; qualifications of teaching staff; record of program completions; placement services and performance measures including employment of graduates; and numbers and details of complaints as well as disposition by regulatory agencies. This information system could be

¹⁹ Some elements of an information system are suggested in H. M. Levin, "Financing a System for Lifelong Learning". See footnote 1.

organized by types of training, location, cost, flexibility of studies, and other criteria to make it easy to access for the potential participant by a PCE search engine. It would also provide pertinent data on providers for potential suppliers to use in making decisions about establishing new training centers or expanding or closing existing ones.

An adjudicatory mechanism would be maintained by the regulatory agency for resolving disputes that might arise between program sponsors and enrollees. This mechanism would be used if the participant believed that there were issues of provider misrepresentations to the information system. The regulatory agency would have the power to challenge the validity of the complaint or to require the participant to provide a refund of the entitlement or some other remedy. Data on such violations would also be recorded on the information system for guiding prospective participants in the future. For the most extreme infractions, the agency could cancel eligibility for the provider.

5 Can PCE's Work?

It may appear that PCE's are an interesting idea, but that they deviate so much from present financing approaches that they carry great risk. In the U.S. we have had experience with two types of voucher or entitlement programs in higher education. Pell Grants are provided from the federal government to students from low income families. However, they are very modest relative to the full costs of post-secondary education and limited in duration and application.²⁰ According to analyst Tom Kane, they have not seemed to have a major effect on equity in redistributing participation in higher education.²¹ By contrast, the GI Bill of Veterans' Education Benefits Program in the U.S. suggests that larger and less restricted

²⁰ For example, the maximum Pell Grant was only slightly more than \$ 3,000 a year in 2000-01.

²¹ See footnote 17. Also, see his analysis and recommended changes in Pell Grants in T. Kane, "Reforming Subsidies for Higher Education," In M. H. Kusters, *Financing College Tuition* (Washington, D.C.: The AEI Press, 1999), pp. 53-75.

entitlements are a highly workable approach to the financing of post-compulsory education and training and lifelong learning that can have strong equity effects. The GI Bill was established in 1944 to assist military veterans to adjust to a changing economy.²² A monetary allowance was provided for paying college tuition and other educational costs at approved institutions that included most colleges and universities as well as secondary schools and vocational training programs. The magnitude of the program is substantial with at least \$ 70 billion having been spent on it since its inception.

At the present time veterans receive from \$ 672 to \$ 800 per month for full-time studies for up to four academic years.²³ The allotments will rise to \$ 985 a month in 2003 for a maximum of almost \$ 36,000 for the four academic years.²⁴ Veterans are able to receive benefits for enrollment at almost any educational and training program, but not for apprenticeships or on-the-job training or courses offered outside of the U.S. Eligibility of institutions is based upon educational, legal, financial, and information reporting criteria. Almost 18 million veterans have participated in the GI Bill, and the program has accounted for about half of the U.S. federal support for postsecondary education and training. Veterans have a period of a decade to use their benefits and have wide latitude in the choice of programs, although, historically, about three-fourths have chosen colleges and universities according to a study of the Congressional Budget Office.²⁵ This study also found that about

²² This brief description is taken from West's Encyclopedia of American Law: Government Agencies and Programs under the heading of "GI Bill" as found at <<http://www.wld.com/conbus/weal/wgibill.htm>>.

²³ The Veterans found at <http://www.gibill.va.gov/Education/News/PL107103.htm>.

²³ It should be noted that GI Bill students who select public institutions are still beneficiaries of subsidies beyond the GI Bill entitlement, so the entitlement component represents only part of the overall subsidy received by the participant. Education and Benefits Expansion Act of 2001 was enacted on December 27, 2001. Details are found at <http://www.gibill.va.gov/Education/News/PL107103.htm>.

²⁴ It should be noted that GI Bill students who select public institutions are still beneficiaries of subsidies beyond the GI Bill entitlement, so the entitlement component represents only part of the overall subsidy received by the participant.

²⁵ U.S. Congressional Budget Office, Veterans' Educational Benefits: Issues Concerning the GI Bill, (Washington, D.C.: 1978).

one-tenth were studying in vocational and technical institutes and another tenth in on-the-job and farm training programs which are no longer eligible for coverage. The remainder chose correspondence schools, flight instruction, and high school completion programs. Although benefits for part-time study are proportionately lower, either part-time or full-time study is permissible. Benefits are received as long as the student attends regularly and performs satisfactorily. It is clear that the program is both comprehensive and flexible as described above.

The program also encourages potential participants to take advantage of further education and training. O'Neill and Ross found that over three-fifths of veterans were likely to use their benefits in the early 1970's²⁶, and a study in 1996 found that 95 percent of eligible military recruits enrolled in the educational program.²⁷ The Congressional Budget Office found that one-third of all veteran students would not have undertaken training and education in the absence of the GI Bill benefits.²⁸ Although in the overall population, enrollment rates of blacks in post-secondary education is considerably lower than that of whites, blacks actually showed higher rates of enrollment.²⁹ After adjusting for test scores and prior educational attainments, the participation rate for blacks was found to be some nine percentage points higher than for equivalent whites.³⁰ There were also considerable earnings advantages relative to similar populations that had not participated in the GI Bill.

²⁶ D. M. O'Neill and S. Ross, *Voucher Funding of Training: A Study of the GI Bill*, PRI 312-76 (Arlington, VA: Public Research Institute, 1976), p. 44.

²⁷ See footnote 21.

²⁸ U.S. Congressional Budget Office, 1978, pp. 12-13. More recent econometric analyses have found the GI-Bill stimulation to be about 20 percent. See M. Stanley, "The Mid-Century GI Bills and Higher Education," (Cleveland: Department of Economics, Case-Western Reserve University, 2002). S. Turner & J. Bound also find positive effects on enrollments for whites and blacks outside of the South.

²⁹ O'Neill & Ross, 1976, p. 53.

³⁰ In a related work, it was found that blacks in the South did not share proportional benefits because of the relative lack of higher educational opportunities for southern blacks in the latter 1940's. S. Turner & J. Bound, "Closing the Gap or Widening the Divide: The Effects of the GI Bill and World War II on the Educational Outcomes of Black Americans," Draft paper presented at Annual Meetings of the American

This evidence suggests that at least one system of PCE-type arrangements was better able to increase participation and equity, and that its comprehensiveness and flexibility suggest increased efficiency as well. Almost 60 years of experience with the GI Bill also supports the view that PCE's do not require excessive regulation or meddling with institutions, and there is little evidence of serious administrative problems or corruption.

6.0 Summary

Post-compulsory education and training have shifted from a focus on immediate post-secondary education and universities to lifelong education through recurrent patterns of education and training over the lifecycle, so-called lifelong learning. This shift means that potential educational and training needs are no longer as predictable as they have been in the past and opportunities must adapt rapidly to new demands as they arise. These demands are characterized by much greater diversity of timing and types of educational and training offerings as well as future directions that have not yet been realized, including much greater use of distance education and the Internet. Such an approach requires a much more flexible and encompassing approach to education, and one that is more comprehensive with an integrated funding approach. The development of a system of post-compulsory entitlements seems to be an appropriate response that meets criteria of efficiency and equity of result.