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Education and Human Capital: Pursuing an Ideal Income Tax and a Sensible Tax Policy

David S. Davenport

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EDUCATION AND HUMAN CAPITAL: PURSUING AN IDEAL INCOME TAX AND A SENSIBLE TAX POLICY

*David S. Davenport**

In this article, Mr Davenport develops a comprehensive approach to the tax treatment of the costs and accumulation of human capital produced through education, an approach that focuses on issues of timing. He suggests alternative normative principles for taxing human capital accumulation, and concludes that none of these principles supports the current law's failure to provide a system of cost recovery for tuition and interest charges incurred for career-oriented education. He proposes a system of a ccelerated cost recovery of education capital costs that will achieve consistency in the taxation of earned income. Finally, he evaluates the treatment of scholarships and education loan assistance as component parts of this integrated approach to human capital development.

* A.B., Amherst College, 1968; J.D., Harvard Law School, 1971. Partner, Choate, Hall & Stewart, Boston.

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"The IRS and the courts . . . provide no means of recognizing that educational expenditures to enter an occupation constitute, over the long haul, an expense of earning a living."¹

"Whereas the formation of human capital is tax-free by analogy to imputed income, the accumulation of tangible capital through wage-producing labor is fully taxable. On balance, then, the tax treatment of professional training costs turns out to be comparatively favorable. In many instances . . . , the non-taxation of the imputed income should more than compensate for the disallowance of deductions for out-of-pocket costs."²

"Why may my neighbor deduct the interest on a \$65,000 boat loan (the boat is large enough to qualify as a second home) while a parent who is struggling to put his children through college is not allowed to deduct a single dime of tuition?"

'Sorry, my friend, I'm just as confused as you are In my opinion, college tuition should be tax deductible, and I urge you readers to put the heat on your senators and congressmen until we get the job done.'"³

I. INTRODUCTION AND SUMMARY OF PROPOSALS

The federal income tax treatment of the costs and benefits associated with the pursuit of education is mistaken and misguided. Errors in policy — relating, on the one hand, to the failure to allow cost recovery for pre-trade or business education expenditures⁴ and, on the other, to the scope and timing of the taxation of

1. 1 BORIS I. BITTKER & LAWRENCE LOKKEN, *FEDERAL TAXATION OF INCOME, ESTATES, AND GIFTS*, § 22.1.1, at 22-3 (2d ed. 1989).

2. MARVIN A. CHIRELSTEIN, *FEDERAL INCOME TAXATION* 116 (6th ed. 1991) (footnote omitted).

3. Ann Landers, *Go Figure: A boat is deductible; College tuition isn't*, BOSTON GLOBE, June 20, 1990, at 47.

4. See, e.g., Richard Goode, *Educational Expenditures and the Income Tax*, in *ECONOMICS OF HIGHER EDUCATION* 281, 282-84 (Selma J. Mushkin ed., 1962); Bernard Wolfman, *The Cost of Education and the Federal Income Tax*, 42 F.R.D. 535 (1966);

human capital accumulations⁵ — have been identified or alleged by commentators focusing on component parts of the income tax treatment of education. However, the net effects of these asserted errors have been accepted or at least tolerated by tax policymakers and many observers.

Some scholars have sought to justify the present state of the law on the theory that, considered together, the mistakes offset each other and produce a reasonable balance or equilibrium,⁶ a kind of "rough justice." Additionally, various commentators have noted the practical problems of judicial and administrative linedrawing between those education expenditures for which cost recovery arguably should be allowed and those that might be viewed as costs of personal consumption.⁷ These observers have differed widely in their treatment of the linedrawing problem, and the suggestion has been made that the broad disallowance of cost recovery deductions has become fixed in the cement of established tax policy toward education and that legislation is required to tamper with this policy.⁸ Further, some commentators, while acknowl-

Loretta C. Argrett, *Tax Treatment of Higher Education Expenses: An Unfair Investment Disincentive*, 41 SYR. L. REV. 621 (1990); Daniel I. Halperin, *Business Deduction for Personal Living Expenses: A Uniform Approach to an Unsolved Problem*, 122 U. PA. L. REV. 859, 899-905 (1974); John K. McNulty, *Tax Policy and Tuition Credit Legislation: Federal Income Tax Allowances for Personal Costs of Higher Education*, 61 CAL. L. REV. 1, 16-18 (1973); Christopher R.J. Pace, *The Problem of High-Cost Education and the Potential Cure in Federal Tax Policy: "One Riot, One Ranger,"* 20 J. LAW & EDUC. 1 (1991); Marcus Schoenfeld, *The Educational Expense Deduction: The Need for a Rational Approach*, 27 VILL. L. REV. 237 (1982); Clifford Gross, Comment, *Tax Treatment of Education Expenses: Perspectives from Normative Theory*, 55 U. CHI. L. REV. 916, 941 (1988) (regarding absence of interest deduction); see also Brian E. Lebowitz, *On the Mistaxation of Human Capital*, 52 TAX NOTES 825 (Aug. 12, 1991); David S. Davenport, *The 'Proper' Taxation of Human Capital*, 52 TAX NOTES 1401 (Sept. 16, 1991) (responding to Lebowitz and summarizing some of the points made in this article).

5. See, e.g., Mary Louise Fellows, *A Comprehensive Attack on Deferral*, 88 MICH. L. REV. 722, 781 (1990); William A. Klein, *Timing in Personal Taxation*, 6 J. LEGAL STUDIES 461, 476, 479 (1977); McNulty, *supra* note 4, at 22-26; David J. Shakow, *Taxation Without Realization: A Proposal for Accrual Taxation*, 134 U. PA. L. REV. 1111, 1158-60 (1986); Paul B. Stephan III, *Federal Income Taxation and Human Capital*, 70 VA. L. REV. 1357, 1369-71, 1409-10 (1984).

6. See, e.g., CHIRELSTEIN, *supra* note 2, at 115-116; Stephan, *supra* note 5, at 1409-10; cf. Fellows, *supra* note 5, at 781.

7. See, e.g., CHIRELSTEIN, *supra* note 2, at 115; Goode, *supra* note 4, at 286-90; Halperin, *supra* note 4, at 901-05; Pace, *supra* note 4, at 4-19; Schoenfeld, *supra* note 4, at 334-39.

8. See, e.g. CHIRELSTEIN, *supra* note 2, at 115 (suggesting that while Congress could permit professional education costs to be amortized by distinguishing between general and specialized education or between higher and lower education, the same task would be

edging current errors of tax policy, have been reluctant to support extending tax benefits to students, who may in the aggregate represent more affluent segments of society and may thus not need or deserve such benefits.⁹

In this article I contend that two (or more) clear or alleged "wrongs" of federal tax policy toward education do not make a "right," and should not be loosely accepted as achieving some sort of fair trade. The issues with respect to education cost recovery deductions and the proper treatment of human capital accumulations each require separate analysis to determine the nature and extent of any error in existing policy and the appropriate legislative, regulatory, or judicial response.¹⁰

A clear error or inconsistency in policy, such as the failure to allow cost recovery deductions for those higher education costs that purchase human capital used to generate future earnings, may have significant adverse ramifications for the efficient and equitable treatment of education and the consequent development of human capital, and ultimately for the long-term productivity of society. The correction of such an error should not be stymied simply by

exceedingly difficult if attempted through administrative rule-making or a process of case-by-case judicial development); cf. Schoenfeld, *supra* note 4, at 348 (noting that "difficult amortization problems have been solved by statute"). Different responses to the linedrawing issues will be discussed *infra* text accompanying notes 40-53.

9. See, e.g., Gerald M. Brannon, *Scholarships, Loans and Tuition Tax Credit or Deduction in Taxation and Education*, in STUDENT AID IN HIGHER EDUCATION 135 (1966), discussed in Charlotte A. Crane, *Scholarships and the Federal Income Tax Base*, 28 HARV. J. ON LEGIS. 63, 83 n.55 (1991); see generally ELCHANAN COHN & TERRY G. GESKE, *THE ECONOMICS OF EDUCATION* 369 (3d ed. 1990) (observing that education deductions would create redistribution of wealth toward higher income families, putting aside other tax law adjustments and longer-range social and economic benefits that may counter that redistribution).

10. Of course, the tax treatment of human capital accumulations and that of the costs incurred to obtain such accumulations are very much interrelated. One can view depreciation deductions, for example, as a means of reflecting the economic decline in value of a capital asset (such as a human capital accumulation), and it would make little sense to consider increases in human capital in isolation from such declines. In fact, however, our tax system varies considerably from one that would seek only to identify a net change in the economic value of capital as a general matter, and of human capital in particular, and depreciation deductions do not necessarily or even regularly correspond to declines in market value. Thus, it becomes necessary to examine these issues in some detail, analyzing separately the treatment of both costs and accumulations of human capital obtained through education, and to compare the treatment of such education costs and accumulations with the treatment of human capital and other investment more generally. See David S. Davenport, *Depreciation Methods and the Importance of Expectations: Implications for Human Capital*, 54 TAX NOTES 1399 (Mar. 16, 1992); *infra* text accompanying notes 226-339.

generalized suggestions that a trade-off exists in the form of other "mistakes" in the system. Rather, if a "countervailing" error in policy is alleged, such as the failure to tax certain accumulations of human capital on a timely basis, that suspect policy should be evaluated not only in terms of its general soundness, but also in more precise terms of the nature and extent of any error.

In other words, analysis of the alleged policy error should ask whether the suspect policy so closely corresponds in its occurrence and degree with another mistaken policy that it may simply be accepted as an "offset" to the other error and, if the suspect policy is in need of correction, whether it is possible and desirable to deal with it directly rather than rely on a vague sense of balance with other misguided policies. This article addresses these questions and seeks to develop the closer analysis that I believe is required.

Similarly, if the general disallowance of cost recovery deductions for education represents an error in policy that may produce both inequity and economic inefficiency, it should not be tolerated simply because of general concerns relating to administrability or vertical equity if those concerns can be more precisely and sensibly addressed. For example, if there is concern with the difficulty of drawing lines between those education costs that may be reasonably considered to be incurred for the purchase of capital generating future earnings (and therefore properly recoverable against future earnings in determining net income) and those education costs that may not be so considered, perhaps a compromise can be fashioned that will at least allow recovery of those costs as to which consensus can be reached concerning their tax characterization as business capital expenditures. If vertical equity concerns exist with respect to the prospect of education cost recovery deductions unduly benefitting more affluent students, a cost recovery system may be tailored to respond to that concern. This article comments briefly on these points as well.

More fundamentally, in this article I develop the thesis that the major issues presented by the federal tax treatment of education — (a) the appropriate means for taking into account the accumulation of human capital, (b) the question of cost recovery deductions for tuition, interest on education loans, and other out-of-pocket costs, and (c) the treatment of scholarships and other financial assistance for students — are inextricably interwoven by the common thread of *timing* issues. My conclusions on the proper treatment of one issue will have important implications for the treatment of the others. Thus, I seek in this article to develop an integrated ap-

proach to the tax treatment of education and to the development and accumulation of human capital generally.

The importance of attention to timing questions is first seen in considering the suggested balance between the denial of education cost recovery deductions and the asserted failure to tax human capital accumulations properly. I suggest that the failure of current law to provide a system of cost recovery for a substantial portion of tuition and other education capital costs, and for interest charges on education loans, constitutes a clear error in policy that results in a permanent overstatement of net income and discourages investment in education. By contrast, the alleged failure to include in income certain accumulations of human capital not paid for with after-tax dollars (e.g., education obtained through "tuition subsidies" or by incurring the cost of untaxed "forgone earnings") involves, at most, a *deferral* of tax. Such a deferral results in the failure to tax an investment return for a given period of time. As we shall explore, it can be debated whether such deferral is an error in policy and, if so, whether a correction already is provided by the tax law or is required to some further extent. However, it should be concluded in any event that neither the nature nor magnitude of the deferral "problem" provides rational grounds for using a general denial of cost recovery for tuition, interest, and other out-of-pocket education costs as a means for addressing the issue.

I further suggest that the question of the tax treatment of human capital accumulations, which most critically involves the timing of the inclusion in income of such accumulations, has a direct connection to the determination of a particular cost recovery method for education costs. The rate of recovery of out-of-pocket education costs through depreciation or amortization deductions may have the effect of taxing the increase in value of purchased human capital prior to its conversion into "market" earnings. That may or may not be viewed as desirable as a matter of general tax policy, but it would in any case result in the imputation of income arising simply from the increase in present value of future earnings due to the passage of time. This result is at odds with the current treatment of other types of human capital and many other appreciating assets. I propose an *accelerated* method of cost recovery that would avoid such imputation in the case of purchased human capital alone.

Just as linkage between the method of cost recovery and the imputation of income should inform the choice of cost recovery method for out-of-pocket costs as a policy matter, it should also

influence our thinking about the appropriate response, if any, to the alleged tax-free accumulation of human capital acquired through education without out-of-pocket expenditures. Because much of the human capital so acquired, like that purchased with tuition, is used to produce future career earnings, a system that would impose an up-front tax on such accumulations, or use a surrogate to achieve the effect of an up-front tax, should also allow cost recovery for the implied investment of such taxable accumulations. The effect of an up-front tax could be achieved through a "deferral charge" to reflect the "failure" of the system otherwise to collect a tax until market earnings are derived. The scope of the deferral "problem" to be met by that charge will be defined in part by the length of the deferral period, which in turn is directly affected by the choice of cost recovery method applicable to human capital investments. The accelerated method of recovery that I propose, to treat income generated from education consistently with earned income derived from other human capital, would imply a shorter period of deferral. Such an approach produces a lower-magnitude problem for which a deferral charge would compensate.

After developing this analytical framework for addressing the taxation of human capital, including a system of cost recovery for out-of-pocket education costs such as tuition and interest charges, I suggest that the scholarship exclusion and the treatment of other forms of financial assistance to education, e.g., interest subsidies for education loans, can be evaluated from a different and more rational perspective. It is no longer necessary to debate whether the scholarship exclusion must be justified as a type of government grant in the form of a "tax expenditure" or whether it may be viewed as consistent with normative notions of an income tax in light of valuation and other problems,¹¹ notwithstanding the clear benefit provided to some students relative to others. Instead, the scholarship exclusion may be viewed as effectively achieving the most rapid form of cost recovery — immediate *expensing* — within a comprehensive system of education cost recovery, and the wisdom and appropriate scope of the exclusion may be tested from that perspective. A difference in degree — a faster form of cost

11. For example, is the student at a private college who receives a scholarship reducing her paid tuition to \$5000 a better target for a finding of taxable income than the student who simply pays the full \$5000 "list price" tuition to a public university that is subsidized by public tax dollars? See Crane, *supra* note 9, at 71-74; see also *infra* text accompanying notes 368-81.

recovery for scholarship recipients than for other students — may have implications and rationales that do not emerge under existing law.

By considering the scholarship exclusion within this larger cost recovery context, it can also be evaluated as a means of deferring tax on the accumulation of human capital rather than providing a complete exemption because deferral is what is gained by immediate expensing relative to cost recovery deductions spread over a period of years.¹² By contrast, under the current law that generally denies education cost recovery deductions, those students whose education costs are self-financed, individually or with family funds, are taxed on income equal to their education costs, while scholarship recipients are permanently exempted from such equivalent income. If the denial of cost recovery deductions is seen as a means to offset the failure of the tax law to otherwise deal properly with human capital accumulation, the brunt of that offset is borne by self-financed students while scholarship recipients face no such compensating charge.

Adoption of a comprehensive cost recovery system, with the scholarship exclusion providing a form of immediate recovery, has other implications. It may suggest that more rapid recovery should be provided, including expensing, for the out-of-pocket costs of needy students who are unable to obtain scholarship monies. It may also harmonize the tax treatment of interest rate subsidies on tuition loans and of loan cancellations for those who use their education in the pursuit of lower-paying public interest employment.

Summary of Proposals

1. Determining the “proper” tax treatment of human capital accumulations involves a judgment as to the appropriate base and reach of an ideal income tax.

(a) One appropriate normative judgment would include human capital in income only when manifested in market earnings. This approach reflects current law, which does not directly seek to impose a tax when human capital is acquired, whether at birth, after self-development (e.g., musical or athletic practice), on receipt of parental guidance in developing social, intellectual or athletic abili-

12. See *infra* text accompanying notes 356-63.

ties, or when more formal education is obtained.

(b) An alternative judgment might seek the effect of an "up-front" tax on some human capital acquired through education in the interests of efficiency and equity between students and non-students. A deferral charge should be considered to achieve the effect of an up-front tax; the nature and extent of such a charge should be influenced by the choice of cost recovery method for the out-of-pocket costs of investment in human capital.¹³ Further study should be done to determine whether the progressive rate structure may provide an adequate charge for a perceived deferral.

2. There should be a cost recovery system for career-related education capital costs, such as tuition for professional, graduate, and vocational education and a substantial portion of undergraduate college expenses. The current disallowance of cost recovery is not an appropriate surrogate for the absence of an up-front tax on human capital accumulations.¹⁴

(a) The method of cost recovery should be *accelerated* so as to avoid the imputation of income from the mere passage of time and the resulting increase in the present value of future market earnings.

(b) The cost recovery system should be structured to limit benefits for upper-income taxpayers.

(c) An up-front surrogate for the tax benefits from cost recovery might be offered for low-income taxpayers to reduce real and psychological barriers to higher education.

3. There should be cost recovery for interest charges on education loans. Interest costs incurred during the "production period," when education is being obtained, could be recoverable as capital costs like tuition; interest charges incurred during one's subsequent career could be currently deductible as the education is used to produce earnings.

4. If a comprehensive cost recovery system is adopted, the scholarship exclusion may be justified normatively in many cases as a more rapid form of cost recovery for needy students. Similar expensing treatment should be considered for the out-of-pocket costs of needy students not on scholarship. A deferral charge or an up-front tax should be considered to compensate for the deferral benefit enjoyed by students receiving non-need-based scholarships.

13. See Proposal #2 immediately following.

14. See Proposal #1 above.

5. The current absence of tax on interest-rate subsidies on education loans may be appropriate if cost recovery is generally provided for interest charges on education loans.

6. Imposing tax on cancellation of education loans may be reconciled with the scholarship exclusion if cost recovery is adopted for the tuition costs financed with such loans. Alternatively, an exclusion may be provided for such cancellations to parallel the scholarship exclusion.¹⁵

II. THE TAX TREATMENT OF INVESTMENTS IN HUMAN CAPITAL THROUGH EDUCATION

A. Current Law — Relationship to Alleged Tax-free Accumulations of Human Capital

1. Denial of Cost Recovery for Tuition Charges and Other Out-of-Pocket Capital Expenditures for Education

The current law with respect to the recovery of tuition and other out-of-pocket education costs is wrong, even irrational, much of the time and to a substantial extent. Consider how the tax law responds to the following facts:

A fifty-year old businessperson spends \$30,000 over the next five years taking law school night courses at enormous sacrifice to herself and her family in order to qualify for a position requiring a law degree. Her hope (and perhaps expectation),¹⁶ subsequently fulfilled, is that she will earn an additional \$100,000 from the use of the degree in her work from age fifty-five to retirement at age sixty-five. At first glance, it would seem clear that she is taxed on too much income unless she is allowed to recover the \$30,000 of legal education costs against her additional income produced with that education over the next ten-year period. Ignoring timing issues

15. See Proposal #4 above. As this article goes to press, Congress is considering an expanded exclusion for education loan cancellation. See *infra* notes 89 and 413.

16. Her objective may be based on statistical averages. As will be reflected in much of the discussion in this article, a unique aspect of human capital is that the risk and uncertainty to the individual is much greater than that to society, for which decisions may be made on the basis of aggregate considerations. LESTER C. THUROW, INVESTMENT IN HUMAN CAPITAL 34 (1970); see GARY S. BECKER, HUMAN CAPITAL 181-82 (2d ed. 1975).

for the moment, it seems unreasonable to tax her on aggregate additional income of \$100,000 instead of the \$70,000 that she is netting from her law school investment.¹⁷ Yet the tax law would clearly deny any recovery for the \$30,000 of tuition costs.

Treasury Regulation section 1.162-5 generally disallows *any* deduction for education expenditures as an ordinary and necessary business expense under section 162 of the Internal Revenue Code unless the expenses serve to maintain or improve one's skills in a *current* trade or business *and* do not qualify the student for a new trade or business.¹⁸ In this example, certainly the latter and probably the former tests would not be satisfied. By itself, the refusal to permit an ordinary trade or business deduction under section 162 is not a particularly surprising or disturbing position because education expenditures of the type illustrated seem by their nature to be capital costs and, thus, undeserving of current deductibility under section 162.¹⁹ Capital costs are normally recovered through depre-

17. It may appropriately be thought that I have selected an atypical case for this paradigm, and that a more representative case would involve a student in her twenties with a much longer career ahead. I have chosen to focus on this shorter-lived career at this point because the limited period and obvious business purpose for use of the education dramatize the overstatement of net income that may result in the absence of any education cost recovery deductions. That same problem will exist in a more conventional case, although the overstatement would occur over a longer period of time and only to the extent that the education is similarly characterized as a cost of earning income. Issues with respect to the impact of such longer period and arguably personal aspects of the education will be considered *infra* text accompanying notes 34-53 and 228-332.

18. Treas. Reg. § 1.162-5 (1967). The regulations separately articulate disallowances for those education expenses that will lead to qualification in a new trade or business and those that are necessary to meet "the minimum educational requirements for qualification in [the taxpayer's] employment or other trade or business." Treas. Reg. § 1.162-5(b). For purposes of this discussion, these costs may be viewed together as expenditures for qualification for a new trade or business. The regulations permit the deduction of education costs that must be incurred to meet the employer's conditions for *continued* employment. Treas. Reg. § 1.162-5(a)(2). For present purposes, I will treat these as part of the costs required to maintain or improve skills needed for the current trade or business (although such costs may in fact be capital in character, despite their permitted deductibility under section 162, see note 24 *infra*).

19. See I.R.C. § 263 (1988); *Welch v. Helvering*, 290 U.S. 111, 115-16 (1933) (denying deductibility for expenses the Court characterized as capital); Bernard Wolfman, *Professors and the "Ordinary and Necessary" Business Expense*, 112 U. PA. L. REV. 1089, 1095-97 (1964) (explaining that *Welch* did not equate "ordinary" expenses with "personal" expenses; however, the Commissioner and Tax Court inferred such a meaning in relation to the treatment of education expenses). For a view disputing the treatment of education costs as giving rise to a recoverable capital expenditure, see Alan Gunn, *The Requirement that a Capital Expenditure Create or Enhance an Asset*, 15 B.C. INDUS. & COM. L. REV. 443, 472-81 (1974) (suggesting that education expenditures may not give rise to depreciation because education may not be an asset). The notion that the creation

ciation or amortization deductions.²⁰ However, the courts, aided in part by the regulations under section 162 and more directly by the regulations under section 262 (precluding an education deduction outside section 162)²¹ have supported the Internal Revenue Service in disallowing even capital cost recovery deductions for all education costs incurred in qualifying for a trade or business, including graduate, professional, and vocational school costs.²²

of a separate and distinct asset might be required in order to classify expenditures as capital has been laid to rest by the Supreme Court in *INDOPCO, Inc. v. Commissioner*, ___ U.S. ___, 112 S. Ct. 1039 (1992). What is important is the realization of benefits from an expenditure beyond the year in which it is incurred.

20. I.R.C. §§ 167, 263. The regulations under section 167 expressly contemplate depreciation of capital expenditures for intangible property. Treas. Reg. § 1.167(a)-3 (1960). See *infra* text accompanying notes 243-45. Special amortization provisions are authorized in various sections of the Code to permit arbitrary cost recovery methods, e.g., I.R.C. § 195 (providing for the recovery of certain business start-up costs over five years).

21. Treas. Reg. § 1.262-1(b)(9) (as amended in 1972; 1967 amendment subpar. (b)(9) added by T.D. 6918) (providing since 1967 that “[e]xpenditures made . . . in obtaining an education or in furthering . . . education are *not deductible unless they qualify under section 162 and 1.162-5* (relating to trade or business expenses)”) (emphasis supplied). Section 262 of the Code denies any deduction for “personal, living, and family expenses,” Regulation § 1.262-1(b)(9), by purporting to give examples of such “personal” expenses and flatly treating non-section 162 education expenses as nondeductible, effectively characterizes as personal those education expenses that are not related to a current trade or business. Section 262 does not contemplate whether some education expenses that are capital in nature may be so business-related that they should be viewed not as providing “personal” consumption but, rather, as a cost of business capital that might be recoverable through depreciation or amortization. I.R.C. § 262.

22. See, e.g., *Sharon v. Commissioner*, 66 T.C. 515 (1976), *aff'd*, 591 F.2d 1273 (9th Cir. 1978), *cert. denied*, 442 U.S. 941 (1979); *Bodley v. Commissioner*, 56 T.C. 1357, 1361 (1971); *Denman v. Commissioner*, 48 T.C. 439, 446 (1967).

In *Duecaster v. Commissioner*, 60 T.C.M. 917 (1990), the taxpayer claimed that his law school education expenses should be amortizable over five years under I.R.C. § 195 as “start-up” costs of investigating and creating a trade or business in the practice of law. *Id.* at 918. The Tax Court rejected the claim on the ground that the law school costs did not satisfy the requirement of § 195 that they be expenses that *would have been* currently deductible if they had been paid or incurred in connection with an active trade or business. *Id.* at 920. The court reasoned that if the taxpayer had been carrying on a trade or business, his education expenses would still be non-deductible under § 162 because the legal education would qualify him for a *new* trade or business. *Id.*

As a technical and policy matter, it would seem that the court arrived at the correct decision. Section 195 filled a gap by providing five-year amortization for expenditures that, while normally deductible if business operations are under way, are nondeductible if incurred prior to active business operations because they do not relate to a depreciable capital asset. I.R.C. § 195. As with goodwill, the recovery of such costs must be deferred until disposition or worthlessness of the business. This is not the problem with recovering education costs; if such expenses were treated as business capital costs, they would (or should) be depreciable or otherwise recoverable like the costs of any other wasting asset under an appropriate cost recovery method. See *infra* text accompanying notes 226-339

In denying an ordinary and necessary business deduction for education expenditures that do not relate to an existing trade or business or that otherwise qualify the taxpayer for a new trade or business, the section 162 regulations state that the costs of education represent either personal expenditures or "an inseparable aggregate of personal and capital expenditures."²³ Again, if the impact of these regulations were solely to define the scope of ordinary and necessary business expenses, this approach might be relatively unobjectionable. Because neither a personal nor a capital expenditure is, in general,²⁴ deductible under section 162, there would be no need under that provision to determine the extent to which an education expenditure would be personal or capital, as long as at least one of the two characterizations was appropriate. However, because the courts and the section 262 regulations have treated section 162 as the *exclusive* means for deduction of education expenditures *at any point in time*, the "personal and capital" language in the section 162 regulations takes on broader meaning and the resulting resolution is wholly unsatisfactory.

To the extent that education expenditures are *capital* costs in connection with one's career, the regulations and case law do not provide a persuasive rationale for rejecting claims for depreciation

(Part II(C)(1)). Instead, as discussed in text, the problem with education costs is that they have been effectively treated as personal, a matter § 195 is not designed to address.

23. Treas. Reg. § 1.162-5(b)(1) (as amended in 1967).

24. Ironically, certain education expenditures that would seem to be capital in nature qualify for current deductibility under § 162. Under regulation § 1.162-5, the costs of education that will improve or maintain one's skills in an existing trade or business, without qualifying the taxpayer for a *new* trade or business, are deductible even though these expenditures may provide new skills or status that will be used over a period of years. Treas. Reg. § 1.162-5 (as amended in 1967). See, e.g., *Hill v. Commissioner*, 181 F.2d 906, 911 (4th Cir. 1950) (allowing a deduction for university courses taken in order to renew a teaching license for an additional ten years). Current law may thus unduly favor education costs incurred to maintain or to improve one's skills in an existing trade or business, while it wholly and permanently disallows deductions for education expenses incurred to make a career change.

In addition, § 127 permits an exclusion from an employee's income (achieving the same result as would occur with inclusion in income and an immediate, full deduction under § 162) for qualifying employer-financed education to a maximum of \$5250 per employee per year. I.R.C. § 127. A § 127 plan similarly may enable employees to obtain an effective deduction for capital costs, even including expenditures that would qualify an employee for a new trade or business (and would therefore not be deductible under § 162) and education costs that are wholly unrelated to an employee's current position.

As this article goes to press, Congress appears on the verge of extending § 127, which has a June 30, 1992 "sunset date," for an additional 18 months to December 31, 1993. See TECHNICAL EXPLANATION OF SENATE FINANCE COMMITTEE AMENDMENT TO H.R. 11 (Aug. 3, 1992), at 38-39.

or amortization deductions that would provide recovery of these capital costs over the period in which they are used. Under classic Haig-Simons principles,²⁵ an expenditure for a capital asset would not qualify for a current deduction, but rather would represent a substitution of one form of property accumulation or savings (in this case the human capital acquired through education) for another (the cash spent on tuition). That human capital, however, would then generate a reduction in income each year to the extent that it declined in value as it was used in the course of one's career. Our system, of course, does not seek to follow Haig-Simons principles precisely by annually measuring and accounting for such actual declines in value. Rather, the system provides for depreciation or amortization deductions to reflect the reduction in income resulting from the depletion of the capital investment over the period in which it is used.²⁶

Under current law, capital expenditures for intangible assets are generally depreciable under section 167 on the straight-line method over the useful life of the asset, provided that a useful life can be

25. As defined by Henry Simons, income is the

. . . algebraic sum of (1) the market value of rights exercised in consumption and (2) the change in the value of the store of property rights between the beginning and end of the period in question The *sine qua non* of income is *gain* [T]his gain may be measured and defined most easily by positing a dual objective or purpose, consumption or accumulation

HENRY C. SIMONS, PERSONAL INCOME TAXATION 50 (1938).

Emphasis on the accretion part of the consumption-plus-accumulation definition is generally credited to Professor Haig. Robert M. Haig, *The Concept of Income — Economic and Legal Aspects*, in *THE FEDERAL INCOME TAX* 1, 7 (Robert M. Haig ed. 1921), reprinted in *READINGS IN THE ECONOMICS OF TAXATION* 54, 75 (Richard A. Musgrave & Carl S. Shoup eds. 1959) ("The formal definition of *economic* income, which . . . provides the most acceptable concept of income, may be stated as follows: *Income is the money-value of the net accretion to economic power between two points in time.*"). Credit has also been given to the German economist Georg von Schanz (in an 1896 work) and to David Davidson (writing in Swedish in 1889) for anticipating the Haig-Simons definition. See, e.g., STANLEY S. SURREY ET AL., *FEDERAL INCOME TAXATION — CASES AND MATERIALS* 60-61 n.18 (Successor ed. 1985); Alvin Warren, *Would a Consumption Tax Be Fairer than an Income Tax?*, 89 *YALE L.J.* 1081, 1084 n.13 (1980).

26. While depreciation or amortization provides a formulary means of reflecting the consumption over time of the invested funds through exhaustion of a wasting asset, our current system, with its realization requirement, frequently does not take account of increases in the value of assets whether due to the increase in value of future revenues from the passage of time or to other market forces. See *infra* text accompanying notes 251-327 for discussion of methods of cost recovery and the impact of the choice of method on the question of including in income the increase in present value of future earnings.

estimated with reasonable accuracy.²⁷ If capital expenditures for education were analyzed under this provision, there could be debate about whether and how useful lives might be reasonably estimated,²⁸ but there would seem to be no basis for the flat disallowance of cost recovery deductions emanating from the section 162 regulations. It has been suggested that an individual's life expectancy or, alternatively, his projected period of earnings before retirement would be suitable periods by which to measure useful lives in this context.²⁹ Certainly life expectancy would reflect the outside limit for the useful life of what is obviously a "wasting" asset.³⁰ With more detailed study and data, it might be possible to tailor the depreciation allowances so that greater depreciation is allocated to the periods during which the education provides the most value in producing earnings. Perhaps, for example, depreciation should be greatest in the earlier years of a career when prior education is arguably most important in generating earnings, before it is overshadowed to a degree by on-the-job experience, training, general intelligence, personality, and business relationships.³¹ Moreover, an argument can be made for using a method of depreciation such as the income forecast method³² that may be applied

27. Treas. Reg. § 1.167(a)-3 (1960).

28. See, e.g., Shakow, *supra* note 5, at 1160; see generally Schoenfeld, *supra* note 4, at 343 n.791 (analyzing the argument made by two commentators that education expenses cannot be amortized because the useful life is indeterminable).

29. See, e.g., Schoenfeld, *supra* note 4, at 343, 348; Wolfman, *supra* note 4, at 547. In *Sharon v. Commissioner*, 66 T.C. 515, 530 (1976), *aff'd*, 591 F.2d 1273 (9th Cir. 1978), *cert. denied*, 442 U.S. 941 (1979), the Tax Court disallowed cost recovery for education costs but permitted the taxpayer to depreciate his law practice license fees over the period of his life expectancy. Cf. Goode, *supra* note 4, at 291-92 (suggesting that education expenditures should be amortized over the period in which they contribute to earnings — possibly a shorter period than life expectancy — and proposing a "compromise" whereby education costs would be recoverable over lesser of 20 years or period until age 65).

30. See, e.g., Lebowitz, *supra* note 4, at 828. Contrast business goodwill, which is nondepreciable on the theory that its useful life is indefinite — it *could* go on forever. Proposed legislation is pending that would change the treatment of purchased goodwill and certain other business intangibles, permitting an arbitrary 16-year amortization. See TECHNICAL EXPLANATION OF SENATE FINANCE COMMITTEE AMENDMENT TO H.R. 11, *supra* note 24, at 345-79.

31. See, e.g., Gross, *supra* note 4, at 938. It may be argued to the contrary that an education may be more valuable in later years when combined with other human capital components to produce greater earnings. See *infra* note 328.

32. See Rev. Rul. 60-358, 1960-2 C.B. 68, *amplified by* Rev. Rul. 64-273, 1964-2 C.B. 62 (discussing income forecasting as a method of depreciating television films); *infra* notes 248, 329 and accompanying text (discussing the income forecast method of depreciation as applied to education expenditures).

without determining a useful life tied to a particular period of years.

The subject of an appropriate cost recovery method is explored below, and a proposal is put forward for more accelerated depreciation — normatively grounded — than has previously been suggested.³³ At this point, what is important to note about the current law is that none of these issues has been authoritatively analyzed and evaluated, because the courts have essentially ignored the capital asset produced through education expenditures and have either explicitly or effectively treated such expenditures as being inherently *personal*.³⁴ Apparently seizing upon language in Justice Cardozo's opinion for the Supreme Court in *Welch v. Helvering*³⁵ relating education to general cultural enrichment,³⁶ the courts have persistently treated education expenditures of all types — no matter how closely linked to one's business, profession, or other career — as expenditures for personal consumption rather than for capital that may be used in one's trade or business.³⁷

33. See text accompanying notes 226-339 (Part II(C)(1)).

34. See, e.g., *Sharon v. Commissioner*, 66 T.C. 515, 526 (1976) ("Since the inseparable aggregate includes personal expenditures, the preeminence of section 262 over section 167 precludes any amortization deduction."), *aff'd*, 591 F.2d 1273 (9th Cir. 1978), *cert. denied*, 442 U.S. 941 (1979).

35. 290 U.S. 111 (1933).

36. A person "conceives the notion that he will be able to practice his vocation with greater ease and profit if he has an opportunity to enrich his culture." *Id.* at 115. In fact, the holding of *Welch* was that an *ordinary* expense did not encompass a *capital* item; education costs were invoked by analogy as a capital expenditure. *Id.* at 115-16. See also Wolfman, *supra* note 19, at 1096-97. It is ironic that Justice Cardozo's language should be used to disallow any education cost recovery, because his opinion went on to describe eloquently the importance of education in developing the human capital with which to pursue a career:

There is little difference between these [education] expenses and those in controversy here. *Reputation and learning are akin to capital assets*, like the good will of an old partnership For many, they are the only *tools with which to hew a pathway to success. The money spent in acquiring them is well and wisely spent. It is not an ordinary expense of the operation of the business.*

Welch, 290 U.S. at 115-16 (emphasis added) (citation omitted).

37. See, e.g., *Denman v. Commissioner*, 48 T.C. 439, 445 (1967); *Robertson v. Commissioner*, 37 T.C. 1153, 1158 (1962) (both cases citing *Welch* without analysis for the proposition that education costs are personal).

It should be noted that treatment of education costs as capital need not involve the granting of a deduction until such time as the education is applied in an income-producing activity. Such education may effectively be presumed to be personal until such point. See *infra* text accompanying notes 315-16, 326, 344-45. However, classifying education expenditures as strictly personal, as the courts have done, precludes a deduction for all time, including the period when the education is used in an income-

Such a characterization seems, quite simply, to be clearly erroneous as to many education expenditures. To take as a paradigm my earlier example of the businessperson who went to law school at night to enhance her future earnings, the notion that the \$30,000 of law school costs represented personal consumption rather than a cost of business capital to be used in producing earnings seems to require a distorted use of the concept of personal consumption. In a classic Haig-Simons sense, which is generally reflected in section 262, personal consumption is normally thought to encompass those costs that are incurred for necessities and pleasures of life, not costs incurred in connection with earning income.³⁸

Certainly my beginning tax law students find rather shocking the suggestion that the unfavorable tax treatment of their tuition costs, and of interest charges on their education loans, follows from the perception that they are considered to be using after-tax dollars not as an investment in a long-term career but to obtain personal necessities or pleasures. Most of them reject the notion that the joys of obtaining a grounding in tax law are considered to

producing career.

38. Of course, the tax law denies any recovery for certain costs that obviously have a relationship to earning income. Thus, for example, commuting costs are treated as personal and non-deductible even though one commutes in order to go to work. *See, e.g., CHIRELSTEIN, supra* note 2, at 94. Similarly, there is currently no deduction for child care expenses, but see *infra* notes 121-22 with respect to the child care credit, even though taxpayers may view such expenses as a cost of earning income. *See Smith v. Commissioner*, 40 B.T.A. 1038 (1939) (rejecting the taxpayer's arguments that babysitting expenses should be deductible as a necessary business expense because without the services of a nursemaid, the taxpayer would have been unable to leave her child and take a job). The relationship of expenses to work is quite different in these cases, however, from that which is involved in career-related education costs. One can perform the typical job in downtown Boston whether one lives in the city and walks to work or resides in a distant suburb with an hour commute. Similarly, one can perform the typical job whether one is childless or has two children requiring child care. The commuting and child care costs thus can be viewed as incrementally incurred for personal purposes relating to choice of home or family circumstance. (Note that a strong counter-argument could be made with respect to child care by using as a baseline a taxpayer who can enter the workforce only if his child care needs are met.)

The lawyer, doctor, teacher, or other professional, however, cannot perform properly in her career or, indeed, even lawfully perform at all in many cases, without having obtained the requisite education. Nor should it matter whether the education is absolutely required or is pursued as one of several appropriate choices or options in connection with a career. *Cf. Hill v. Commissioner*, 181 F.2d 906, 909 (1950) (allowing a teacher to deduct the cost of taking classes at Columbia University, where such education satisfied one of several alternative routes for the renewal of a required teaching certificate). For a different view, see DAVID F. BRADFORD AND U.S. TREASURY TAX POLICY STAFF, BLUEPRINTS FOR BASIC TAX REFORM 51 (Rev. 2d ed. 1984).

be akin to the personal consumption involved in renting their apartments, consuming pizza, or watching the Red Sox chase a pennant.³⁹

a. Linedrawing Problems

Commentators generally agree that the courts have gotten the cost recovery issue wrong as to some types of education expenditures, for example, professional, vocational, and graduate education costs that seem clearly career-related and not to involve substantial personal consumption by almost any definition.⁴⁰ There has been substantial disagreement, however, as to where to draw the line between those education expenditures that should be treated entirely as business-related and those that should be treated as involving some personal consumption. This disagreement includes whether and where to draw lines between particular courses of study that may be viewed as involving varying degrees of personal consumption. The most lively dispute has centered on whether undergraduate college costs should be recoverable to some degree.⁴¹

This linedrawing problem is both interesting and important, although it is not the principal focus of this article. That focus is the treatment of those higher education costs that might generally be agreed to give rise to human capital used in generating career

39. *But see* DAN SHAUGHNESSY, *THE CURSE OF THE BAMBINO* (1990). Some students might argue that they should be able to capitalize their personal costs incurred in connection with a Red Sox pennant quest, on the grounds that the expenditure will necessarily extend into future years, and then be permitted to take a casualty loss deduction under section 165 from time to time, although they would seemingly have trouble with the requirement that a casualty loss be sudden and unexpected.

40. *See supra* note 4.

41. Some have supported full cost recovery. *See, e.g.,* Argrett, *supra* note 4, at 654; Pace, *supra* note 4, at 18. Others have supported the present law's complete disallowance and, thus, have been willing to view college education as personal consumption. *See, e.g.,* Halperin, *supra* note 4, at 904 (asserting that where both business-related and personal consumption aspects exist, doubt should be resolved by denying the deduction); *see also infra* note 48. Still others have supported a compromise position that would provide cost recovery for some portion of college costs. *See, e.g.,* Goode, *supra* note 4, at 289-90 (crediting Theodore Schultz and suggesting recovery of arbitrary portions of education costs deemed to contribute to future earnings: 100% for professional and vocational education, 75% for liberal arts college education, and 25% for high school); *cf.* Theodore W. Schultz, *Investment in Human Capital*, 51 *AM. ECON. REV.* 1, 12-13 (1961) (proposing for sake of argument that education expenses be considered 50% investment, 50% personal consumption, as a means of reflecting that some part of education creates a form of consumer capital).

earnings and *not* to represent personal consumption: Why should those costs remain unrecoverable, and what methods of cost recovery might appropriately be used? The linedrawing problem does, however, contribute to the “blanket” disallowance of cost recovery deductions for education capital costs in the regulations, as reflected in the “inseparable aggregate of personal and capital” language. It also seems to support the willingness of some, in the absence of Congressional action, to acquiesce in the erroneous treatment of what are agreed to be clearly business-related educational costs.⁴² Thus the linedrawing problem warrants some attention here.

The difficulty of drawing lines between business and personal aspects of expenditures involving elements of both is common in tax law and has been addressed in various ways.⁴³ For example, business travel expenses are generally 100% deductible even though they may involve pleasurable aspects.⁴⁴ By contrast, since 1986 business meals have been subject to an arbitrary allocation, with deductions generally allowed to the extent of eighty percent of the meal cost.⁴⁵ By still further contrast, the costs of clothing worn on the job are generally nondeductible if they are suitable for general wear, regardless of the personal habits or tastes of the particular taxpayer.⁴⁶ A college education may be viewed as presenting a similar business-versus-personal dilemma in that it may provide a pleasurable, or at least important, personal experience for a student at the same time that it provides the skills and “ticket” for a substantially enhanced income-earning capacity in a future career.

Thus, it makes sense that different approaches have been suggested as to the appropriateness of cost recovery deductions for college costs, ranging from zero to 100% and including arbitrary allocations in between. My personal view is that cost recovery should be permitted for *most* college *tuition* costs — but limited to the related earnings⁴⁷ that follow — because these particular costs are incurred in creating career-related human capital and do not directly satisfy a personal consumption need or generalized pleasure

42. See CHIRELSTEIN, *supra* note 2, at 115.

43. See, e.g., Halperin, *supra* note 4, at 860-62, 899-905; Pace, *supra* note 4, at 5-6.

44. I.R.C. § 162(a)(2).

45. I.R.C. § 274(n)(1).

46. See, e.g., Pevsner v. Commissioner, 628 F.2d 467, 470 (5th Cir. 1980).

47. I would limit cost recovery deductions in any given year to income earned with the education. The education costs may be viewed as personal until they “prove” their value by generating earnings. See *infra* text accompanying notes 315-16, 326, 344-45 concerning methods of cost recovery.

(as do expenditures for clothing and food to a substantial degree). I would agree that there may be personal consumption aspects of college, but I would treat those as covered by (i) *nondeductible* room and board charges and (ii) a small *nondeductible* percentage of the tuition costs, to be determined by regulations, that would represent the less academic parts of a college program.⁴⁸

While differing approaches to the question of cost recovery for college and other education costs, including even elementary and secondary education,⁴⁹ may be maintained, it is less understand-

48. Cf. Goode, *supra* note 4, at 289-90. In my judgment, a college student should not be taxed on "psychic income" from the personal pleasures of college, just as one who is already engaged in a career is not taxed on such income. See Lebowitz, *supra* note 4, at 828; *infra* text accompanying notes 123-40.

Further, I do not believe that distinctions should generally be drawn between courses of study in terms of which is more career-related and deserving of cost recovery deductions under the tax law. Such an inquiry is speculative, and such distinctions are likely to lead to an unfortunate distortion with respect to a student's choice of academic path. See, e.g., Pace, *supra* note 4, at 11. For example, I would not want to allow cost recovery for undergraduate business or accounting courses (which would seem to be as appropriately recoverable as graduate business school courses) while denying recovery for economic courses in a liberal arts program.

However, a certain portion of college costs may be labelled as personal consumption, e.g., physical education instruction in golf or skiing, and to that extent should be non-recoverable. See Halperin, *supra* note 4, at 862-85, 899-905 (putting forth a helpful method of analysis focusing on the personal consumption value of an expenditure). Halperin reaches the judgment, different than mine, that zero percent of undergraduate college expenses should be recoverable.

One might treat private college tuition costs above a specified level as personal consumption on the grounds that they are unnecessary and a luxury in view of lower-cost education available elsewhere. This treatment, however, would present other concerns. For example, a lower/middle income student who pays the cost of private college at great sacrifice would be denied cost recovery deductions for the "excessive" tuition, while an affluent student could enjoy, and effectively *expense*, a tuition subsidy from a public university. See *infra* text accompanying notes 359-81 (discussing the equivalence of a tax-free tuition subsidy to the receipt of taxable income that is offset by an *immediate* cost recovery deduction). Also, comparable lesser-cost education may not be available. A better way to approach the "luxury" or personal consumption aspects of the wealthy student's payment of full tuition at a high-price private school may be to impose limits on the tax allowance available to upper-income taxpayers. For example, a limited tax credit could be used or cost recovery deductions could be granted but limited in their impact to a given tax rate. See *infra* text accompanying notes 60-71 (vertical equity discussion).

49. The same issue of whether education expenditures are personal or career-related that is frequently debated in the context of college costs can be argued with respect to expenditures for elementary and secondary school. Of course, those expenditures can be seen as more personal because they are further removed from a particular future career, and they have often been characterized as costs of personal consumption. See, e.g., Pace, *supra* note 4, at 15-16 (noting that the motivations for completion of elementary and high school typically are the fulfillment of statutory or parental requirements).

In another sense, however, such a characterization seems too facile. In fact, most

able that the arguable difficulty in distinguishing among different categories and levels of education should provide a reason to prevent cost recovery allowances for *all* education costs, including those that clearly involve no more than minimal personal consumption aspects. Professional, vocational, and graduate education, for example, are typically so closely related to career plans and involve so little "general cultural enrichment" or other personal components that their costs should be generally recoverable in full against one's future income, over some appropriate period and under some appropriate method. It does not seem justifiable to alter that conclusion and deny *all* cost recovery simply because there might be some minimal personal aspects intertwined with the career aspects or because the personal component might be greater in

elementary and secondary education costs are effectively subject to cost recovery already — as if they received immediate expensing — because the costs are paid through public expenditures while the value of that education is not included in the student's or parents' income. One might argue that the parents effectively pay a tuition charge through their tax dollars, but there is no direct relationship between the amount paid by a parent and the value received by the student. Further, to the extent such tax dollars are financed with state and local income and property taxes, immediate cost recovery may be said to be provided by the deduction for such taxes in § 164. I.R.C. § 164.

Why not allow, then, recovery for out-of-pocket expenditures for elementary and secondary education? The answer may depend on one's concept of the role of public education at these levels. I suggest that as a society we have determined that elementary and secondary education should be available on a publicly-financed basis to all so that the entire citizenry may have a human capital base. We do not view the value of that education as personal consumption any more than we do the food or housing that may be purchased with low amounts of income that are not subject to tax by reason of personal exemptions or the standard deduction. On the other hand, consensus about a human capital baseline need not imply that we are treating elementary and secondary education as a business cost of earning income, important as they may be to one's future productivity. Rather, this education base may be viewed as simply a universal starting point from which one may then make choices about further education expenditures that may lead to an economically productive investment for a future career. From the judgment that public education should be available to all to supply a pre-career base, it is then not difficult to conclude that amounts expended by some taxpayers for private elementary or secondary education for their children should be treated as personal consumption, reflecting a personal choice to spend additional monies.

It is interesting to consider the many current proposals for greater choice in elementary and secondary education, including the use of public monies to pay for tuition at private schools. If society makes a judgment that public education is inadequate and that public funds may be devoted to education at private schools, such education may be viewed as an alternate means of devoting public funds to obtain the human capital base, and arguably should not give rise to income any more than should the use of those funds at public schools. If publicly-financed grants were included in income, a form of cost recovery could be allowed to produce a comparable net result for tax purposes.

With respect to scholarships provided by private schools, see *infra* text accompanying notes 356-411.

the case of *other* types of education. Denying all recovery suggests that because it might be difficult to get Case X (college costs, for example) exactly right, we therefore should get Case Y (including professional and vocational school costs) totally wrong.

A simple response would be to draw an arbitrary line and provide that some education costs, e.g. for professional and vocational schooling, will be recoverable, while others will not. Such all-or-nothing proposals may be troubling, however, because the disparity in tax treatment might distort choices made by students. Students may eschew broader, "tax-disfavored" education for more practical, "tax-favored" studies.⁵⁰ That concern reflects a legitimate issue, but it does not warrant a blanket rejection of all cost recovery deductions for all education expenditures. A better solution would allow cost recovery in appropriate cases and lessen the disparity in treatment for different cases by allowing partial cost recovery in cases that involve education that is part personal and part career-related.

At present, the system broadly discriminates against many investments in education that do not qualify under the section 162 regulations.⁵¹ It would clearly be an improvement to provide recovery for those education costs that are widely viewed as a capital cost of generating earnings in a career, such as expenditures for vocational, professional, and graduate studies. It would also be an improvement to recognize that there is a substantial business capital component in undergraduate college costs as well. Rather than move to an all-or-nothing system which may lead to distortions and inefficiency because of the sharp disparity in tax treatment, an alternative solution would be to allow recovery for a large, albeit not perfectly precise, percentage of college courses.⁵²

50. See, e.g., Pace, *supra* note 4, at 11; McNulty, *supra* note 4, at 28-29 & n.90. I would suppose, for example, that we would not want to allow recovery for graduate business school costs and for "trade school" business courses, while denying recovery for undergraduate accounting or economic courses at a liberal arts college. See *supra* note 48.

51. In addition to favoring on-the-job training and other education directly related to one's current job (and typically chosen or approved by employers), the system also favors employees who can take advantage of a § 127 plan provided by employers. See Crane, *supra* note 9, at 94-96; *supra* note 24. Section 127 excludes from income qualifying employer-financed education to a maximum of \$5250 yearly.

52. Oddly, some have viewed a partial allocation approach as an arbitrary "diver[sion] from the goal of perfecting the definition of income." Pace, *supra* note 4, at 18 (advocating recovery of 100% of college costs). Assuming that some but not all college expenses are career-related, allowing either 100% or 0% is equally arbitrary and more clearly wrong.

Thus, if there is a general consensus that at least as to substantial categories of education expenditures, including those for professional, vocational, and graduate education, cost recovery deductions for tuition should be permitted, the linedrawing issue should not preclude either the regulation writers or the courts from reaching that result. The current regulations under sections 162 and 262 improperly extend the disallowance of personal expenses in section 262 to certain education expenditures that should be recognized as business capital costs, even if one assumes that certain other education costs include an "inseparable aggregate" of personal and capital expenditures that could warrant disallowance. Moreover, as to the latter category, a different regulatory approach (and legislation, if considered necessary)⁵³ could break down the "inseparable aggregate" and draw some other appropriate line or lines. Where the line is drawn is not critical to the analysis in this article, but the process should begin.

It is difficult to accept linedrawing problems as an adequate explanation for the failure of tax law to allow cost recovery for those education expenditures that are generally agreed to be business capital costs, such as the \$30,000 law school tuition charges of the businessperson seeking an additional \$100,000 of earnings in my earlier example. There seem to be two additional significant reasons why the current blanket disallowance of cost recovery outside of section 162 has managed to survive and, if linedrawing has been a deterrent to change, why there has not been more pressure to determine some reasonable classifications. One factor is the suggestion by some academics that the tax law does not really discriminate against capital investments in education because in other ways the tax law undertaxes human capital, offsetting the denial of cost recovery. A principal objective of this article is to probe and evaluate this contention. A second factor is concern that cost recovery deductions for education would unduly benefit higher-income taxpayers, presenting a vertical equity problem.

53. The Treasury seems to be free to promulgate regulations allowing a percentage of college costs to be treated as non-personal. This would mitigate the distortion problem discussed *supra* text accompanying notes 48-52. Nothing in the Code spells out the scope of "business," "personal," or "capital" expenditures in the area of education. The Treasury would presumably conduct an appropriate study to determine the basis for such rules.

b. Offset to Correct Alleged Undertaxation of Human Capital Accumulations

A number of tax policy critics are skeptical about whether the federal income tax as a whole, notwithstanding the cost recovery problem, truly discriminates against investments in human capital through education. The result has been a general ambivalence that reduces pressure to change the system. Commentators have argued that the federal income tax discriminates *in favor of* human capital in material respects apart from the unfavorable treatment of out-of-pocket costs. They suggest that as a theoretical matter income should be imputed to students to reflect the value of their education obtained through, *inter alia*, their untaxed forgone earnings, their untaxed services performed for themselves while in school, and the untaxed subsidies provided to them in the form of below-cost tuition charges.⁵⁴

It has been asserted that, on balance, the failure to tax these benefits, which arguably should be included in income as a normative matter, counteracts the detriment from the failure to provide cost recovery deductions for out-of-pocket costs. The net result is said to be neutral or perhaps even favorable toward education.⁵⁵ Some even view this asserted trade-off as reflective of an intentional tax policy fashioned by Congress to deny cost recovery deductions for out-of-pocket education costs in order to compensate for the failure to tax on a current basis the excess value accreting to the individual who obtains education.⁵⁶

In fact, however, sophisticated consideration of human capital issues is relatively recent and it seems fanciful to ascribe to Congress or the Treasury such conscious tax policy-making.⁵⁷ It does

54. See, e.g., CHIRELSTEIN, *supra* note 2, at 115-16; Fellows, *supra* note 5, at 781-82; Klein, *supra* note 5, at 476, 479; McNulty, *supra* note 4, at 22-26; Shakow, *supra* note 5, at 1158-60; Stephan, *supra* note 5, at 1369-71, 1409-10.

55. See CHIRELSTEIN, *supra* note 2, at 116; Fellows, *supra* note 5, at 781; Stephan, *supra* note 5, at 1371, 1409-10. *But see* DAVID F. BRADFORD, *UNTANGLING THE INCOME TAX 206* (1986) (asserting that the tax system is not neutral or favorable to education, but acts instead as a disincentive); THUROW, *supra* note 16, at 14 (noting that the current tax law favors physical investments over the taxpayer's investment in himself); Schultz, *supra* note 41, at 13.

56. See Fellows, *supra* note 5, at 781 (also noting the possible personal consumption characterization of education as a further reason the Internal Revenue Code severely limits the recovery of education costs); Stephan, *supra* note 5, at 1409-10; *supra* text accompanying notes 5-7.

57. Goode notes that the very restrictive education deduction regulations first promul-

not appear that any such quid pro quo for the denial of education cost deductions has been articulated or even contemplated by Congress, by those drafting the regulations covering the deductibility of education costs, or by those courts that have upheld the denial of claimed education cost deductions.⁵⁸ Moreover, the notion of "matching" of a denial of otherwise appropriate deductions with an exclusion for otherwise taxable income is imprecise, even if warranted in some very general or abstract sense.

Later in this paper, these issues are examined in detail.⁵⁹ First, the alleged failure to properly account for the tax-free accumulation of human capital is considered. Second, the implications for the question of cost recovery deductions are discussed. I conclude that the present system neither adequately addresses these issues nor represents an acceptable compromise. A blanket denial of cost recovery deductions is not a precise or appropriate response to problems that may be perceived in the taxation of certain human capital accumulations. Instead, the effect of this denial in many cases is to discriminate against human capital purchased through an individual's education expenditures, as compared to other types of human and non-human capital investment.

c. Vertical Equity Concerns

A further reason for the lack of pressure by tax policy critics about the treatment of education costs is a certain discomfort with the idea of granting future deductions to students who may disproportionately represent more affluent classes of society.⁶⁰ If former students were able to claim education cost recovery deductions against their career earnings, the resulting tax savings would be greatest for higher-bracket taxpayers. Of course, we generally do not deny or limit legitimate business deductions simply because the tax savings will be greater for higher-bracket taxpayers.⁶¹ Howev-

gated in 1958 under I.R.C. § 162 were adopted at a time when far less attention had been given to the idea of human capital formation and its implications for tax and economic policy. Richard B. Goode, *Tax Treatment of Individual Expenditures for Education and Research*, 56 AM. ECON. REV. — PAPERS AND PROCEEDINGS 208, 209 (1966).

58. See *supra* notes 22, 34-37 and accompanying text.

59. See *infra* parts II(B) and (C).

60. See *supra* note 9. Note also that the more affluent the student or the student's family, the more likely the student may be to incur larger tuition charges at private institutions or higher-cost public institutions, including the higher charges at out-of-state public institutions. See COHN & GESKE, *supra* note 9, at 368.

61. If one is simply concerned with a reduction in the overall progressive nature of

er, we do make adjustments with respect to some deductions where there are perceived personal consumption benefits.⁶²

There are reasons specific to education for paying attention to such vertical equity concerns. It may be more likely that the relatively affluent student, lacking the same economic imperative as others, will indulge in a higher degree of personal consumption with respect to certain types of schooling. In addition, the affluent student may be more likely to pay higher tuition at a private school; we may conclude that the additional tuition cost is "less necessary" and should be treated as personal consumption.⁶³ Restrictions on the level of tuition qualifying for cost recovery deductions would be similar in concept to the limits, albeit lenient ones, placed on certain excessive business meal or employee compensation amounts.⁶⁴

Further, as will be discussed below, one potential response to the alleged tax benefit to students from a tax-free accumulation of certain human capital is to rely on the progressive tax rate structure to provide a form of deferral charge for such a benefit.⁶⁵ However, that response may not be adequate with respect to more affluent students⁶⁶ who may be in high tax brackets already when

the income tax after allowing education cost deductions, that issue could be addressed by adjusting tax rates and taking other redistributive steps, assuming society and Congress had the will to do so.

62. For example, 20% of business meal expenses are disallowed to reflect personal consumption elements. I.R.C. § 274(n). Further, some limits are income-based, as in the 7.5% floor for medical deductions. I.R.C. § 213(a). Also, while we might conceive of the child care credit as a means of offsetting the failure to tax imputed income of a parent rendering care at home, the provision of only a limited tax credit for child care curbs personal consumption benefits that might otherwise favor the more affluent. See I.R.C. § 21(a),(c); *infra* note 69 and text accompanying notes 121-22.

63. See note *supra* 48; cf. COHN & GESKE, *supra* note 9, at 368 (proposing one or two additional exemptions, rather than deductions, per student to compensate for educational expenses, thereby compensating all parents to the same extent and avoiding a consumption benefit for higher cost education).

64. I.R.C. §§ 162(a), 274(k).

65. That is, income arguably should be imputed when there is an otherwise tax-free accumulation of human capital. However, that human capital will be taxed, and generally at a higher tax rate, when the student earns income in the marketplace at a later date. That higher tax rate may compensate the government for the deferral. See *infra* text accompanying notes 201-12.

66. Normally, education cost recovery deductions should be evaluated with reference to the student's tax bracket because it is the student who is using the education in a career. If a parent paid the tuition cost, that should be treated as a gift to the child who then acquires a basis in the human capital equal to the parent's cost. The parent should not receive the benefit of cost recovery deductions. However, if a student receives a college

they first accumulate human capital. That might suggest that more affluent students are less deserving of cost recovery deductions, although imposing a penalty by denying such a deduction is not a sensible way of tailoring a precise response.⁶⁷

A system of cost recovery thus might be structured or limited to provide greater relative benefit to lower-bracket taxpayers. Straight dollar caps could be placed on the amount deductible in a given income tax bracket.⁶⁸ Alternatively, a tax credit system might be used to provide more tax savings to lower-bracket taxpayers.⁶⁹

Limiting education cost recovery may in some circumstances contradict the conceptualization of education expenditures as a true cost of earning income that should be *fully* deductible, apart from personal consumption elements. As a practical matter, however, any proposal to institute education cost recovery must address important

scholarship, the benefit might properly be viewed as flowing to the parent who may be relieved of a tuition charge, especially when the parent is in a higher bracket because such a parent frequently pays for college. Because the scholarship exclusion provides, in effect, immediate cost recovery of education costs, that benefit may be seen as derived at the parent's tax rate. See *infra* text accompanying notes 402-04. In that case, it may be appropriate to take into account the tax bracket of a student's parent, as is done with the "kiddie tax" pursuant to § 1(g). See I.R.C. § 1(g) (taxing the investment income of children under 14 at the parent's tax rate). A similar analysis might be pursued with respect to tuition subsidies (see *infra* text accompanying notes 112-17), although I will suggest that such subsidies are more difficult to characterize as providing a clear and quantifiable benefit. See also *infra* note 68.

67. See *infra* text accompanying notes 192-99.

68. Also, and perhaps suggesting an even more dramatic limitation, one might consider using public university tuition as a benchmark for the tuition costs required to obtain the higher education sought in order to develop human capital for a more productive career. Under this scheme, cost recovery deductions might be disallowed for the larger out-of-pocket costs of private institutions. See Argrett, *supra* note 4, at 657 (arguing that a cap on expenses eligible for cost recovery could be used to prevent private schools from being favored over public ones). Query, however, whether it would be sensible or desirable to introduce such discrimination through the tax laws, particularly as public school tuitions are subsidized and the exclusion of that subsidy from income has the same effect as if the student were taxed on the benefit and then granted an immediate deduction. Private school tuitions often reflect subsidies as well, of course, but it would be extremely difficult to try to determine some sort of benchmark "recoverable" tuition level amidst the plethora of different tuition charges and subsidies among institutions of higher education. See *supra* note 48 and *infra* text accompanying notes 115-17, 370-81.

Alternatively, deductions might be limited by reference to income level or tax bracket.

69. Compare, for example, the child care credit allowed by I.R.C. § 21, which permits a tax credit measured as a percentage of the child care expenditures up to a limited dollar amount. The applicable percentage declines from 30% to 20% as the taxpayer's income increases.

considerations of revenue cost to the government and the potential reality or perception of undeserved benefit to more affluent taxpayers who already enjoy a greater share of society's riches. It is important to tailor a response to vertical equity concerns that addresses these considerations. The current blanket denial of cost recovery is not such a response. Instead, it results in discrimination against investment in education by those for whom cost recovery allowances may make a real difference. Students from the lower and middle classes face true barriers due to education costs or perceived costs.⁷⁰ For these students, a system that makes the after-tax cost of education unjustifiably high as a matter of normative tax policy makes no sense, either on social policy or tax policy grounds.⁷¹

2. Denial of Cost Recovery for Interest on Education Loans

Until recently, the federal income tax permitted a full deduction on a current basis for "personal interest."⁷² With the Tax Reform Act of 1986, that policy shifted dramatically to one of general disallowance of personal interest, with the exception of qualifying personal residence loans to finance home ownership.⁷³ It appears that interest on education loans is generally viewed as personal

70. See, e.g., Karen DeWitt, *Battle is Looming on U.S. College Aid to Poor Students*, N.Y. TIMES, May 27, 1991, at L1, L9 (discussing increasing obstacles to middle class students' access to higher education); Peter F. Drucker, *A Better Way to Pay for College*, WALL ST. J., May 9, 1991, at A14 (arguing that students are discouraged from considering expensive schools because they perceive the cost as being much higher than it actually is).

71. It might be argued that the prospect of tuition (and interest, see *infra* Parts II(A)(2) and II(C)(2)) deductions "down the road" when one is working may have relatively little impact on a student's decisions with respect to education. However, by according education costs a "proper" system of cost recovery, public perception of the relationship of tuition charges to future earnings may be influenced, and at least the way in which students and lenders look at the cost of carrying education loans may be affected. See RICHARD GOODE, *THE INDIVIDUAL INCOME TAX 90* (rev. ed. 1976) (suggesting that amortization of education expenditures may induce borrowing and lending for educational purposes); GOODE, *supra* note 4, at 299; cf. Drucker, *supra* note 70 (arguing that expensive private schools would be better able to attract quality students if they devised plans whereby tuition payments could be deferred until the student's income-producing years).

Students and their families may more readily, and properly, envision the cost of education as something to be matched against resulting higher incomes generated with that education. Moreover, for those facing severe barriers to entry, we might provide an up-front tax benefit or "carrot" to the student (or the student's family) as a surrogate for the benefit that would have been provided by cost recovery deductions in the future.

72. I.R.C. § 163, prior to amendment by the Tax Reform Act of 1986.

73. I.R.C. § 163(h).

interest (consistent with the case law treating tuition costs as personal) and thought to be nondeductible,⁷⁴ except to the extent of interest charges on home equity or other qualifying personal residence loans used to finance education expenses.⁷⁵ The current law thus favors the student who can draw upon financing (by herself or her family) of home ownership, including a vacation home.

If education costs represent business capital costs that should be recoverable over time, thus indicating that tuition charges should be subject to a system of cost recovery as in our paradigm case,⁷⁶ then the interest charges on education loans should similarly be deductible at some point. Such interest is currently treated as personal consumption in the same way as the interest cost arising from charging a television on a credit card. If the investment in the education does not constitute personal consumption, then neither should the interest charges.⁷⁷

Perhaps the denial of an interest deduction can be viewed as a further means under current law to "compensate" for the alleged failure to tax the accumulation of human capital as education is obtained. If so, the effect is to discriminate against education financed through borrowing as compared to self-financed education. In the latter case the reduction in taxable investment income from the investment of funds in education produces a reduction in tax; however, when borrowed funds are used for education, there is no corresponding tax effect reflecting the "negative income" produced by the interest charges.⁷⁸ Students who finance their educations

74. See, e.g., Gross, *supra* note 4, at 917; Julee B. Little, Note, *Section 163: Interest Paid on Educational Indebtedness — Past, Present and Future*, 43 TAX LAW. 1007, 1007 (1990). Contrary to general impression, it appears possible that self-employed taxpayers may be able to deduct interest on education loans once they are engaged in a trade or business. See I.R.C. § 163(h)(2)(A) (allowing deduction for interest paid on debt allocable to a trade or business); Temp. Treas. Reg. § 1.163-8T(a)(4)(A), (b)(7), (j).

75. See I.R.C. § 163(a),(h)(1)-(3).

76. See *supra* text accompanying notes 16-17.

77. The general treatment of interest under current law involves tracing the interest to the purpose — business, investment, or personal — of the expenditure financed through borrowing. A different view of interest would treat it not as part of the cost of the financed expenditure but as an independent expense resulting, in Haig-Simons terms, in a reduction in wealth that should be reflected in reduced net income for the year because it does not represent personal consumption. See generally MICHAEL J. GRAETZ, *FEDERAL INCOME TAXATION — PRINCIPLES AND POLICIES* 451 (2d ed. 1988) (discussing arguments for viewing interest as "negative income" and therefore deductible); SURREY et al., *supra* note 25, at 518; *infra* text accompanying notes 340-55 (discussing implications of the different theories of the interest deduction).

78. See GRAETZ, *supra* note 77, at 451 (quoting Melvin I. White, *Proper Income Tax*

through borrowing thus face a double whammy. First, they suffer the discrimination against purchased education generally resulting from the absence of a cost recovery system. Second, that discrimination is compounded by the nondeductibility of interest.

In exploring in this article the tax treatment of the accumulation of human capital, I conclude that the current disallowance of education interest deductions, like the absence of a cost recovery system for tuition costs, is not justified by the alleged failings in the treatment of human capital. My conclusions about human capital and cost recovery for education capital costs will also have implications, discussed below,⁷⁹ for the timing of interest deductions on education loans.

3. Treatment of Scholarships and Loan Benefits

Currently, scholarship grants are excluded from income under section 117 of the Code to the extent they cover tuition, academic fees, and other costs (such as books and supplies), provided that they do not represent payments for teaching, research, or other services required as a condition for receiving the scholarship.⁸⁰ Scholarship amounts for room and board are taxable.⁸¹

The scholarship exclusion is frequently viewed as a "tax expenditure" — providing, in effect, government funds through the tax system to assist students. As a normative matter, it is reasoned, the scholarship represents an accession to the student's wealth and thus *should* be taxed. Accordingly, the failure to collect the appropriate tax represents not sound tax policy but, rather, a legislative judgment to support education with a tax break rather than a direct grant.⁸² However, some scholars have defended the scholarship exclusion as normatively justified. They contend that it is not clear as a theoretical matter whether a scholarship student has actually received something of value that should be taxed and that, in any event, valuation questions alone would present serious inequities if the exclusion were removed.⁸³

Treatment of Deductions for Personal Expense, in Tax Revision Compendium, Committee on Ways and Means, 365-66 (1959)); Alvin C. Warren, Jr., *Accelerated Capital Recovery, Debt, and Tax Arbitrage*, 38 TAX LAW. 549, 560 (1985); *infra* text accompanying notes 346-47.

79. See *infra* text accompanying notes 340-55.

80. I.R.C. § 117.

81. See I.R.C. § 117(b)(2).

82. See, e.g., SURREY et al., *supra* note 25, at 211, 233-35, 241.

83. See, e.g., Crane, *supra* note 9, at 71-74 (discussing difficulties presented by the

Commentators have observed that the zero-tax impact of the scholarship exclusion is the same as would occur if the scholarship were included in income but the recipient were given a full offsetting deduction.⁸⁴ It is as if the recipient received cash, paid it over to the educational institution as tuition, and were allowed to "expense" that tuition cost through an immediate deduction. The same analysis has been used in defense of the scholarship exclusion, on the theory that it would be appropriate for scholarship recipients to receive cost recovery deductions for their implied tuition expenses.⁸⁵

Of course, non-scholarship students are not allowed cost recovery deductions for their tuition costs. Thus, if viewing the scholarship exclusion as a cost recovery allowance, the question remains whether the disparity in treatment of scholarship and non-scholarship students can be justified as a matter of tax policy or is simply a tax expenditure to scholarship students. Moreover, if the denial of cost recovery for tuition-paying students is considered a means of offsetting the alleged failure to tax properly the students' human capital accumulations, the effective granting of immediate cost recovery to scholarship students would mean that their human capital accumulations would be left unaffected and must be thought not to require the same level of taxation as that of non-scholarship students. Again, the disparity is complete.

After exploring the tax treatment of the accumulation of human capital and considering the implications for cost recovery of tuition and interest, I will evaluate the scholarship exclusion in a different light — as simply a faster form of cost recovery for a specific class of students, within a general system of cost recovery for many educational expenditures.⁸⁶

Many students also receive loan benefits. First, the interest rate charged is often subsidized so that students pay a less-than-market rate; second, in certain cases loans may be forgiven.⁸⁷ The interest rate subsidy may be without tax effect under current law on the

differences in types and amounts of subsidies provided at different institutions); *supra* note 11.

84. See, e.g., William D. Andrews, *Personal Deductions in an Ideal Income Tax*, 86 HARV. L. REV. 309, 380 n.126 (1972); Crane, *supra* note 9, at 84.

85. See Crane, *supra* note 9, at 84-86; *infra* note 382.

86. See *infra* text accompanying notes 356-411.

87. See generally Crane, *supra* note 9, at 93 & n.74; J. Timothy Philipps & Timothy G. Hatfield, *Uncle Sam Gets the Goldmine — Students Get the Shaft: Federal Tax Treatment of Student Loan Indebtedness*, 15 SETON HALL LEGIS. J. 249 (1991).

premise that the loan arrangements are not reached by section 7872 of the Code, which effectively imputes interest in certain categories of loans.⁸⁸ In contrast to scholarships that qualify for exclusion, the cancellation or forgiveness of loan amounts, however, may well give rise to income.⁸⁹ Careful consideration of these consequences will also be informed by an examination of the treatment of human capital and the appropriate implementation of a cost recovery system. The failure to account for the interest subsidy may appear more rational if we conclude that education loan interest should generally be deductible on some schedule. Further, the taxation of forgiven education loans would appear more rational and less harsh relative to the scholarship exclusion if a system of cost recovery were to be available for the tuition and other capital costs of education financed with the proceeds of the forgiven loans. Alternatively, an exclusion for such cancelled debt could also be defended more rationally as being — like scholarships — simply a faster form of cost recovery.

B. "Proper" Treatment of Human Capital Accumulations

As noted, various economic and legal scholars have observed that the tax law may not fully account for the accumulation of human capital as it is developed.⁹⁰ The focus of these observers has generally been upon human capital accumulated through education. Some have suggested that the law inadequately taxes the development of human capital as a normative matter and that such deficiency compensates for, or may even justify, the failure of the tax law to provide a general system of cost recovery for out-of-pocket education expenditures such as tuition.⁹¹ The denial of cost recovery for education expenditures, and its relationship to human capital taxation, also has a direct bearing on an assessment of the

88. I.R.C. § 7872; see Prop. Treas. Reg. § 1.7872-4(e)-(f), 50 Fed. Reg. 33, 561 (1985).

89. See *supra* note 87. Currently, cancellation of indebtedness income does not include a limited category of loan cancellations — generally, government loans where the discharge of debt is granted to borrowers working for a period in certain professions. I.R.C. § 108(f). As this article goes to press, Congress is considering expanding this exclusion so as to cover loans made by educational organizations pursuant to programs designed to "encourage . . . students to serve in occupations or geographic areas with unmet needs." HOUSE REPORT NO. 102-688 ON MISCELLANEOUS REVENUE BILL OF 1992. (H.R. 2735), 102d Cong., 2d Sess. 18 (July 21, 1992).

90. See *supra* note 54; see also BECKER, *supra* note 16, at 226-27.

91. See *supra* notes 55-56 and accompanying text.

scholarship exclusion as a matter of normative tax policy. Because scholarship students receive, in effect, immediate cost recovery of those education charges covered by their scholarships, they are to that extent unaffected by the absence of a general cost recovery system. The general denial of cost recovery for education may thus be seen as adjusting only for the alleged undertaxation of human capital of tuition-paying students, not scholarship recipients.

Accordingly, the critical first step in evaluating the tax treatment of the costs and benefits of education is to examine whether the taxation of human capital accumulation is in fact adequate, particularly where such accumulation occurs through education. If there is no serious flaw in the current treatment, then any purported justification for the failure to provide a cost recovery system for out-of-pocket costs disappears. If there is a problem, it is then important to consider the character and scope of the problem, which would affect the fashioning of a solution. As part of this consideration, the denial of cost recovery allowances can be evaluated as an acceptable or useful response.

1. Measures of Human Capital Accumulation Through Education

Scholars studying the accumulation of human capital through education have identified, from various perspectives, education value or benefits that students may be viewed as acquiring without paying full consideration and without including such an accession to wealth in taxable income. Frequently, in order to identify this education value, these commentators have focused on *costs*: first, a student's costs in the form of *forgone earnings* while pursuing an education;⁹² second, an educational institution's costs in providing education not fully charged to the student, resulting in a *tuition subsidy*.⁹³ Some commentators have also emphasized the *benefit* side of education by referring to *imputed income* in the form of the human capital that students obtain as an economic matter, without inclusion in taxable income, by performing services for themselves in pursuing their schooling.⁹⁴

These concepts have been addressed in different ways, and sometimes without careful analysis of the concepts and their relationships both among themselves and with the conversion of

92. See, e.g., McNulty, *supra* note 4, at 20-22; Pace, *supra* note 4, at 22.

93. See, e.g., Crane, *supra* note 9, at 71; McNulty, *supra* note 4, at 24, 38-41.

94. See, e.g., McNulty, *supra* note 4, at 23.

human capital into earned income. A brief examination of each concept will be useful in order to understand those relationships and their bearing on human capital taxation. Each concept raises issues that ultimately reduce to a fundamental question of when, if ever, a student receives something of value that should be included in income for tax purposes. One may ask, for example, whether a human capital accumulation as measured by a tuition subsidy or forgone earnings should be taxed only when "market earnings" are actually obtained through use of the human capital, or at an earlier point through imputation of an amount measured by the tuition subsidy or forgone earnings? The answers to these basic questions will shape the proper approach to the taxation of such human capital.

a. Forgone Earnings

The asserted failure to take account of *forgone earnings* is a frequently asserted basis for the allegation that the income tax does not fully account for the increase in wealth resulting from a student's accumulation of human capital through education. The term "forgone earnings" describes the income that a student gives up by attending school instead of entering the workforce. Forgone earnings may be more difficult than other notions, such as a tuition subsidy, to conceptualize as conferring a benefit that might be taxable to students, because forgone earnings are typically and properly described as an economic *cost* to the student.⁹⁵ However, this cost may be seen as representing a measure of education value that the student obtains above and beyond the value that is purchased through tuition and other out-of-pocket costs. The "excess" education value so acquired by forgoing workforce earnings is neither paid for with after-tax dollars nor included in income, and thus the value may be seen as a tax-free accumulation of human capital.⁹⁶

95. See, e.g., John W. Graham, *An Explanation for the Correlation of Stocks of Non-human Capital with Investment in Human Capital*, 71 AM. ECON. REV. 248, 248 (1981); Philip E. Heckerling, *The Federal Taxation of Legal Education: Past, Present, and Proposed*, 27 OHIO ST. L.J. 117, 141 (1966); Pace, *supra* note 4, at 22.

96. There is a true economic cost, of course, in that the student gives up the *opportunity* to earn a given sum of money. One might consider whether cost recovery deductions should be allowed for that cost as part of a general cost recovery system for tuition, interest, and other out-of-pocket education costs. If we actually taxed the student on the forgone earnings, we could view the student as constructively receiving those earnings and in turn paying that sum over to a university as an additional payment for education. The

Suppose, for example, that a law student could have earned \$20,000 per year had she not decided to attend law school and pursue a legal career which she may expect to provide greater earnings potential for the longer term. The student may be said to incur an additional cost of education, over and above tuition and other out-of-pocket costs, equivalent to the present value of the \$20,000 that could have been earned⁹⁷ in each of the three years of law school, a total of perhaps \$50,000.⁹⁸ It may be assumed, then, that the student rationally viewed the education as worth giving up \$50,000 in addition to tuition and other costs. This \$50,000 of education value is acquired free of tax consequences, whereas the non-student who actually works at the job that pays \$20,000 in each of these three years will be left with only after-tax proceeds to consume or invest. Thus, the student arguably is given a tax-free benefit of \$50,000, or at least what would have been left of \$50,000 after tax if the student had earned that amount in the workforce.⁹⁹

student should then have an additional cost basis in the human capital acquired through education that should be recovered against future earnings. However, because we do not actually tax the student on the forgone earnings, the student has no corresponding tax basis in an investment that should be considered in determining appropriate cost recovery. Of course, if a system were devised for taxing human capital acquired through forgone earnings at the time that economic cost is incurred, or for achieving the effect of such "up-front" taxation, an appropriate cost recovery method would need to be reflected in such system. See *infra* text accompanying notes 333-39.

97. It should be noted that students may earn substantial amounts during summers or through part-time employment that may reduce the net earnings forgone, perhaps even to a negative number. Moreover, one should not assume too quickly that the student, if she were to forgo her educational opportunities and enter the workforce instead, would have a certain level of earnings in the marketplace. While averages may be relevant, the particular earnings level for any individual depends on many other human capital factors and other circumstances, including ability, interest, ambition, work habits, financial situation, prior education, general economic conditions, and fortuities. The forgone earnings of a particular 18-year old high school graduate not attending college might be quite small.

98. The example assumes no inflation in the actual level of forgone earnings (\$20,000 in each of the three years). For simplicity, the example assumes a discount rate of 10% and annual compounding. Specifically, \$50,000 represents a rounding from \$49,736, the total of present values of \$18,182 for Year 1, \$16,528 for Year 2 and \$15,026 for Year 3.

99. Let us assume a 30% tax rate so that after tax the worker would have \$35,000 left for consumption or savings, putting aside any expenditures or deductions unique to the earning of the \$50,000 that the worker may have had. A student might factor in the \$15,000 tax that would have to be paid if the student were working, and thus conclude that the additional value of the education is worth \$35,000. However, as an economic rather than psychological matter — and seeking to treat the student and non-student alike as a matter of equity and efficiency — the proper valuation would be \$50,000. If we taxed the student on \$50,000 of value, the student would then be left with a net value of

b. Imputed Income More Generally

The forgone earnings argument is actually a cost-oriented variation on the more general argument that a student should be viewed as earning *imputed income* while working at her schooling, with that income being invested in her human capital free of any current tax. That is, while the student's counterpart who entered the workforce is performing services that are compensated in earned income subject to income tax, the student is performing services too, but for herself and outside of the marketplace in a manner that we do not subject to tax.

In legal and economic literature, there is frequent discussion about individuals who mow their own lawns or provide their own child care or own their own homes, and who thus have imputed income as an economic matter represented by the value of their services or the rental value of their property that they enjoy.¹⁰⁰ If we were to include this imputed amount in taxable income, presumably we would seek to measure it by the prevailing price paid for such services or rent in the marketplace.¹⁰¹ Thus, the value of the service performed by the lawyer who mows her own lawn would be the amount that would be paid for such lawn-mowing services in the market, not the income from legal practice or other activities arguably forgone by the lawyer in choosing to spend her time mowing her lawn.¹⁰²

\$35,000 (\$50,000 of education minus \$15,000 tax), the same as the non-student would have after earning \$50,000 of taxable earnings in the workforce and paying the tax.

100. See, e.g., Andrews, *supra* note 84, at 323-24; Klein, *supra* note 5, at 463-64; Donald B. Marsh, *The Taxation of Imputed Income*, 58 POL. SCI. Q. 514 (1943); *infra* text accompanying notes 118-22; see also Thomas Chancellor, *Imputed Income and the Ideal Income Tax*, 67 ORE. L. REV. 561 (1988) (arguing that imputed income is a misnomer and should be excluded from an ideal tax for practical reasons and because individuals' satisfactions are too personal to constitute part of a tax base).

101. Generally, of course, the tax law does not take specific account of such imputed income, but the reasons for that may vary and we shall explore them shortly.

102. It may be said that the lawyer is choosing to spend her "more valuable" time that might otherwise be devoted to law practice on the mowing of her lawn because she desires not only to avoid the market price of a lawn mowing service, but because the mowing work is a leisure activity that she enjoys or because the mowing provides some sort of "psychic income" derived from not paying an outsider to do something "I can very well do for myself." Depending on one's definition of income, the leisure benefit or the psychic income might be included, although these seem less likely to be viewed as appropriate subjects of an income tax. Thus, the total income might more closely approximate the legal fees that could have been earned. This, of course, would assume that the lawyer had the option of using her lawn mowing time to earn greater market income from law

As with the taxpayer who generates imputed income in the home, the student, according to some observers, should be seen as having income from her self-performed services in school. Because that imputed income is not taxed, the student's income may be seen as understated to the extent of the value of those services. However, there is no very good, or at least acceptable, way of determining a true market value of the education obtained. Unlike household services or the rental value of durable goods, there is no general market comparison to what one would pay someone else to perform the services that are being performed for oneself.¹⁰³ Students must perform their own services in pursuing their schooling. Presumably, the best measure of market value would be the present value of the additional earnings that may be generated in future years.¹⁰⁴ Indeed, in a perfect market, the student would presumably give up in tuition payments and forgone earnings precisely what could be earned in the future, discounted to present value. However, while statistics might be invoked to indicate future earnings prospects on a generalized basis, such statistics do not readily permit one to isolate the amount of future earnings attributable to education as opposed to other human capital factors,¹⁰⁵ and statistics are a questionable guide in measuring the value to any particular student.¹⁰⁶ Moreover, the use of averages would have the effect of taxing many students on the present value of marketplace income that they may not have the good fortune to earn or may not choose to earn, resulting either in hardship or constraints on career choices. Such a standard for determining taxable income attributable to education could be unacceptable to many, including this author.¹⁰⁷

practice or otherwise. See *infra* text accompanying notes 123-40 for further discussion of the tax treatment of imputed income focusing on the issues related to leisure and psychic income.

103. See, e.g., BECKER, *supra* note 16, at 77; THUROW, *supra* note 16, at 28.

104. See, e.g., THUROW, *supra* note 16, at 25, 29; William D. Andrews, *A Consumption-Type or Cash Flow Personal Income Tax*, 87 HARV. L. REV. 1113, 1143-44 (1974).

105. See COHN & GESKE, *supra* note 9, at 16, 49-51 (asserting that an earnings function may include a host of determining factors including age, sex, race, ability, and motivation).

106. See BECKER, *supra* note 16, at 181-82 (noting that students do not pay for average future earnings, but place weight on their own circumstances and risks); THUROW, *supra* note 16, at 34-35, 71-74 (discussing the wide variation in individual human capital values reflected in future earnings, as compared with statistical averages).

107. See Andrews, *supra* note 84, at 327; Alan Gunn, *The Case for an Income Tax*, 46

In the absence of acceptable direct evidence of market value, forgone earnings may appear to serve as a useful, albeit imperfect, measure of the value of the education obtained, and thus forgone earnings may provide a basis for imputing income to a student. Use of the student's full economic costs makes some sense in light of the general presumption that what one gives up should equal the value received.¹⁰⁸ Also, forgone earnings may be seen as more easily determined than a discounted value of future earnings. In theory, forgone earnings can be determined without projecting into or predicting the future. One need only consider the present alternative employment of time. In addition, the forgone earnings argument is more clearly focused on the frequently articulated goals of equity and efficiency in the tax system because it seeks to provide parity of treatment between the non-student, who generates savings or capital only through the accumulation of after-tax payments for her services, and the student, who is not currently taxed on the value of his efforts.

Appealing as the forgone earnings concept may be as a measure of value, two serious concerns affect its suitability as a standard for testing the current tax law treatment of investment in human capital through education. First, determining the amount of an individual student's forgone earnings would be no easy task. One would be forced to speculate as to employment options and income levels available to the individual. A "floor" approach could be adopted using a statistically-determined low wage to represent a minimum that a student could obtain by entering the workforce rather than pursuing an education.¹⁰⁹ This might serve to further

U. CHI. L. REV. 370, 382 (1979); Mark G. Kelman, *Personal Deductions Revisited: Why They Fit Poorly in an "Ideal" Income Tax and Why They Fit Worse in a Far from Ideal World*, 31 STAN. L. REV. 831, 836-39 (1979); Klein, *supra* note 5, at 467; Warren, *supra* note 25, at 1114-16; *infra* text accompanying notes 138-39, 174.

108. *Philadelphia Park Amusement Co. v. United States*, 126 F. Supp. 184, 189 (U.S. Ct. Cl. 1954).

109. See McNulty, *supra* note 4, at 21 n.62 (proposing to determine a student's possible after-tax earnings based on average or median incomes of student-aged taxpayers).

Actual forgone earnings might not make sense as a measure of imputed income in any event if they were to exceed a reasonable estimate of the value of the education in terms of the projected future earnings. Suppose, for example, that a Wall Street lawyer decides to go to divinity school to become a minister. It would make no sense to value the development of human capital in divinity school by reference to what could have been earned in law practice, except to the extent that one seeks to include in income even less tangible and quantifiable flows of value, such as psychic income. A valuation by reference to an alternative means of employment may compel the taxpayer to give up

the goal of some degree of equity between the student who is accumulating human capital free of current tax and the non-student who can only accumulate capital or pay for personal consumption on an after-tax basis. Even the use of a minimum, however, would present difficulties in individual cases. For example, students might not find employment if they were to enter the workforce rather than pursue their educations. Further, many students, e.g., law and business school students, may earn more on a part-time basis and during vacations than they could have earned full-time as non-students.¹¹⁰

Second, and more fundamental, it is important to ask whether forgone earnings, as a measure of human capital accumulated through education, *should* be imputed as a matter of normative income tax policy. As was just indicated, the non-student working in the marketplace earns income that either can be devoted to personal consumption or added to savings at the individual's discretion. The student's services do not produce similar claims on

the education and pursue the alternative route in order to be able to pay the resulting tax. See *infra* text accompanying notes 138-39.

110. See, e.g., COHN & GESKE, *supra* note 9, at 76, 79 (discussing factors that must be considered in estimating forgone earnings, including part- or full-time status, ability, and age). In addition to full-time students, there are many part-time students and students who take individual courses. They might be employed in the workforce part- or full-time. And, as noted, "full-time" students may work at night or during vacations. If a "floor" approach were followed to determine forgone earnings, presumably such amounts should be reduced for actual market earnings on which a student is taxed. However, this would introduce new inequities or at least anomalies. Suppose all full-time law students were generally thought to be properly taxed on \$10,000 of forgone earnings. Student *A* earns \$4000 from part-time employment with a law firm, while Student *B* does not obtain a job. If Student *A* is taxed on only \$6000 of forgone earnings on the grounds that \$4000 of the missed income was in fact not missed, then Student *B*, who earns *no* market earnings, would be taxed on the same total amount of \$10,000 as Student *A*. *A* and *B* would be effectively taxed on the same amount notwithstanding the fact that Student *A* is acquiring cash to use for additional consumption or savings above and beyond the human capital which we may consider to be of equal value to both *A* and *B*. See *infra* text accompanying notes 148-67.

The alternative of not reducing forgone earnings for actual market earnings also presents difficulties because Student *A* would then be taxed on \$14,000 as if she could have pursued an alternative path in the workforce, rather than academia, that would have generated earnings of \$10,000 plus another \$4000 "after hours." Moreover, consider the law or business student who earns \$10,000 in the summer that never could have been earned if the student were not pursuing the particular course of study. Is it sensible to tax that individual on \$20,000 when the maximum market earnings that could be earned as student or non-student would be \$10,000? However, if the forgone earnings are viewed simply as a surrogate for the present value of future earnings, then it may be argued that each student should still pay tax on a specified figure for forgone earnings plus any actual market earnings that are derived.

society's goods and services until she converts her human capital into market earnings. Whether this is a meaningful difference is a question this article will address in considering imputed income more broadly.

Consistent with treatment of forgone earnings as one measure of imputed income for services performed by a student for himself, it can be readily observed that the two concepts overlap in the effort to identify a benefit from the pursuit of education. If a student can be said to have a cost (and thus untaxed benefit) of forgone earnings while attending law school, that cost is necessarily a part of (and perhaps all or more than)¹¹¹ the income that arguably should be imputed to him for the value of his services in pursuing a law degree. The two concepts cannot properly be viewed as involving distinct forms of currently untaxed income.

c. Tuition subsidies

Apart from forgone earnings and imputed income from self-performed services more generally, another asserted untaxed benefit associated with pursuit of an education is the *tuition subsidy*. Due to the availability of various resources, including public tax dollars, charitable contributions, and endowment incomes, many educational institutions set tuition charges lower than the institution's operating costs.¹¹² For example, a student may pay college tuition of \$10,000 while the college is incurring per-student costs of \$20,000. Thus, the tax policy question is whether the benefit to the student as a result of this difference should, as a normative matter, be included in taxable income.

In this regard, the concept of a tuition subsidy overlaps with the concepts of forgone earnings and imputed income generally. If the student is forgoing earnings while receiving a \$10,000 tuition

111. Consider a professional basketball player who retires when still performing at a high level in order to go to law school. Here, the appropriate measure of the value of the legal education should not exceed the present value of future earnings in the new legal career unless one is to speculate about psychic income by reference to what could have been earned in professional basketball. See *supra* note 109.

More typically, forgone earnings may be minimal and far less than the present value of projected earnings from the human capital. Still, the two concepts overlap because the forgone earnings are simply a partial measure of the human capital accumulated through education.

112. Crane, *supra* note 9, at 71. In addition, some individual students receive subsidies in the form of scholarships or other assistance. This subject is related to the present one and is discussed *infra* text accompanying notes 356-411.

subsidy, in an economic sense the student is paying through the cost of the lost wages, either partly or fully, for the "excess" education value represented by the tuition subsidy. If the student has fully paid for the education through tuition plus forgone earnings, then it would seem that the subsidy cannot represent additional income on top of the amount of forgone earnings.

This observation provides a reminder that there is nothing inherent in a market price below the *vendor's* costs which requires a finding that the *purchaser* has received income. At best, a subsidy suggests that the purchaser's costs may be less than the market value to the purchaser because vendors normally will not stay in business if their costs are not exceeded by the market value of their product. Assuming that market value at least equals the vendor's costs, a subsidy that lowers the price charged may then reflect income to the purchaser, measuring value that is obtained in excess of the *purchaser's* costs. However, education is a peculiar commodity in that it may *generally* be offered below cost (because of subsidies derived from outside funding) and, further, at various prices. Price variations result, for example, when public universities charge tuition at different levels to in-state and out-of-state students or when scholarships or other assistance is provided to some students.¹¹³ Moreover, some subsidies provided with tax money or alumni contributions may not benefit students directly, but may instead fund societal benefits, e.g., "public goods" such as medical or national defense research or externalities considered to derive from education (as in the case of scientific research leading to general productivity and technology improvements).¹¹⁴

113. See generally COHN & GESKE, *supra* note 9, at 358-81; Crane, *supra* note 9, at 69-74; *infra* text accompanying notes 370-81.

114. See McNulty, *supra* note 4, at 49-52. The empirical evidence as to some of the externalities has been questioned. See COHN & GESKE, *supra* note 9, at 362. However, the premise that a public return may exceed the private return to individual students seems generally accepted. See, e.g., BECKER, *supra* note 16, at 123-24 (noting the desirability of subsidizing "neighborhood" benefits of education affecting culture, politics and the economy); Andrews, *supra* note 84, at 359 (concerning the justification for non-taxation of educational benefits in terms of value flowing beyond the immediate recipients to society at large).

Some public financing of education may be seen as providing students with a human capital base properly outside the scope of the income tax. This argument has considerable force with respect to public elementary and secondary education that is available to all. See *supra* note 49. Cf. Schultz, *supra* note 41, at 15 (discussing the public interest in providing education to reduce unequal distribution of income). It presents greater difficulties in the context of higher education where the benefits may not be available to all at the same level, but it still has considerable relevance in analyzing the interrelationships

It is therefore risky to generalize about the market value of education to students and, in turn, the extent of income that may be realized from a lower tuition charge, absent a unified market in which one could determine a single tuition price generally paid by students.¹¹⁵ While a tuition subsidy, which can be easily determined and quantified,¹¹⁶ serves as a frequently cited standard, it is questionable whether the subsidy should be used as a measure of up-front value that "should" be taxed to students. Undoubtedly, some schools with greater subsidies may provide their students with greater education value as reflected in future earnings. The variables and contingencies affecting individual students are so great, however, that it seems preferable simply to keep the existence of an untaxed subsidy in mind when considering the possibility of accounting later for the failure to have taxed such a benefit up front.¹¹⁷

Whatever the interpretation of the data with respect to tuition subsidies, such subsidies seem at most to provide another perspective on the basic question of whether a student has received a benefit which the income tax should take into account by imputing income or by devising a surrogate therefor that might be imposed later when the education "proves its worth." Reaching some judgments about this fundamental question requires more general consideration of the purpose and proper scope of the income tax, which may be illuminated by briefly exploring the range of imputed income issues that have both intrigued and tormented scholars and students over the years.

among human capital development, cost recovery, scholarships, and other financial assistance. See *infra* text accompanying notes 397-402.

115. See Crane, *supra* note 9, at 71-74.

116. Figures with respect to the costs incurred by schools are readily available from schools' financial reports. These costs can then be compared on a per-student basis with the tuition charged.

117. See *infra* text accompanying notes 168-225. A subsidy that may reflect true "up front" value more reliably is a scholarship. With scholarships, it is clear that one student is obtaining the same education at the same institution as another student but at a lower charge. However, assumptions about value present problems in this situation as well. See *infra* text accompanying notes 368-81.

2. A Spectrum of "Imputed Income" — Treatment Under an Ideal Income Tax

a. Economic Gain from Household Services or Use of Property

Imputed income may be considered along a spectrum. At one end of the spectrum is the actual production of goods and services or rents for oneself, resulting from "self-performed services" or the use of one's own durable goods within the household and outside the marketplace. This category would include providing child care for one's own children, growing produce that one's family may consume, and enjoying the rental value of a house or car that one owns rather than rents from others. As a normative matter, it can be strongly argued that these types of income in theory *should* be taxed.¹¹⁸ The person who performs services for herself or who owns a durable asset the use of which she enjoys may be said to be generating income in the form of the services or rental value

118. See SIMONS, *supra* note 25, at 51-52; Andrews, *supra* note 84, at 323-24; Warren, *supra* note 25, at 1114; see also Marsh, *supra* note 100, at 516-18, 521 (asserting that income should be defined, for tax purposes, in terms of gain and that imputed income is no different to the individual because it increases her power to consume or accumulate); cf. Klein, *supra* note 5, *passim*. But see Chancellor, *supra* note 100 at 585-86, 590-91 (arguing that services performed for oneself should be excluded from income on the theory that these services do not increase one's ability to acquire goods and services for "preclusive personal use").

I disagree with Professor Chancellor. The performance of services for the household is generally coupled with the immediate consumption of those services. In effect, the individual performing services is both adding to the store of social resources and appropriating those resources to the household through consumption. If the services create a capital asset, such as a house, then the individual has added the newly-generated resources to savings.

Professor Lane has proposed an "exchange theory" of the income tax, which would extend only to "transactions which derive from the production and exchange process." Norman H. Lane, *A Theory of the Tax Base: The Exchange Model*, 3 AM. J. TAX POL. 1, 18 (1984). Such a tax base would by definition exclude imputed income from household services or the ownership of durables. Lane theorizes that exchange transactions produce economic rent (or exchange surplus) that can be taxed with the least impact on efficiency; such tax appropriately finances public goods not produced by the market. Lane's tax should perhaps be described more properly as an excise tax than an income tax. It is not clear to me that those who consume or save the fruits of imputed income should contribute less to the financing of roads, national defense, schools, and so forth. In any event, imputed income from household services is not apt to be a major issue. More significantly, Lane's theory tends to support an income tax that reaches only the consumption or accumulation of claims that *may* be laid on social resources in the market. See *infra* text accompanying notes 148-67.

that others must, or choose to, acquire in the marketplace with payments from income that is taxed. Imposing a tax only on the income generated in the marketplace, and not on the values generated when the fruits of capital and labor are produced and enjoyed at home, distorts decisions made about the employment of economic resources and discourages specialization.¹¹⁹

The reasons for not imputing income for tax purposes on account of these within-the-household services and rentals include administration and valuation problems. Additionally, there may be a general reluctance to "invade" the sanctuary of the home to determine economic activity that may occur. We may also believe that most persons are producing some forms of goods and services within the household on a fairly minimal level, albeit of different types, and thus a relative neutrality is achieved by leaving those goods and services outside the scope of the income tax.¹²⁰

However, when this type of imputed income from the production of goods and services or rental value within the home is significant, we may decide to account for it in *some* fashion for income tax purposes even if we do not tax it directly. Thus, for example, we might view the child care credit¹²¹ as a means of providing those who pay for child care with a tax benefit to offset, to a degree, the benefit of untaxed imputed income obtained by those who provide child care for themselves.¹²²

119. SIMONS, *supra* note 25, at 110; Marsh, *supra* note 100, at 518, 536 & n.54.

120. See Andrews, *supra* note 84, at 323-24; Marsh, *supra* note 100, at 520-21. It also has been argued that this kind of imputed income should not be taxed in order to balance the non-taxation of leisure. SIMONS, *supra* note 25, at 52, 111; Marsh, *supra* note 100, at 519-20; see *infra* text accompanying notes 123-40.

121. I.R.C. § 21.

122. See Andrews, *supra* note 84, at 382; Edward Yorio, *The President's Tax Proposals: A Major Step in the Right Direction*, 53 FORD. L. REV. 1255, 1264 n.79 (1985); *supra* notes 39, 62. Other commentators have discussed the two-earner deduction, I.R.C. § 221 (repealed 1986), and the earned income credit, I.R.C. § 32, as responses to the failure to tax imputed income from household services. See, e.g., SURREY et al., *supra* note 25, at 573, 1073 (justifying tax reduction where "non-taxed imputed income of one spouse [has been converted] into taxable cash income"); Andrews, *supra* note 84, at 324, 377; Thomas D. Griffith, *Theories of Personal Deductions in the Income Tax*, 40 HASTINGS L.J. 343, 379-80 (1989); see also SIMONS, *supra* note 25, at 111 (noting the possibility of an exemption with respect to a spouse's "earned income," "as is done under the English income tax," to compensate for the exclusion of imputed income).

b. Psychic Income and Leisure — The Absence of Economic Gain

At the other end of this imputed income spectrum are the concepts of "psychic income" and leisure. Psychic income is a general term encompassing the flow of satisfactions that may be obtained by an individual in various ways outside the marketplace.¹²³ One person may enjoy the view of the ocean from her corner office while pursuing a career in business, law, or another field that is high-paying in monetary terms as well. Another may enjoy the ability to dress casually while working at a lower-paying job. And, of course, psychic income need not be derived only in the course of employment. In theory, it may arise at any time, as in the case of a sunset enjoyed while camping or sitting in one's backyard. Leisure represents the flow of satisfactions from the enjoyment of one's time not consumed in the course of employment or other activities producing goods and services. In a sense, leisure also provides one source of psychic income.

The concepts of psychic income and leisure are useful for economic analysis in examining the values that influence and motivate individuals in choosing to devote their time and labor in various ways and proportions.¹²⁴ Whether such values should be viewed as income from the standpoint of income tax policy is a different issue, however. Some scholars have suggested that ideally these values should be included within the income tax base to compare properly the flow of satisfactions enjoyed by each individual and to levy a tax that equitably takes from each in proportion to those values.¹²⁵ However, it does not appear that anyone would actually propose to tax psychic income or leisure. It is quickly recognized that the administrative and valuation problems would be enormous because the benefits derived are so highly variable from individual to individual.¹²⁶ Still, the lingering no-

123. See, e.g., SIMONS, *supra* note 25, at 53 (discussing the classic example of the Flügeladjutant who serves at the palace of the sovereign and accompanies the prince to the theater and opera though he may detest such activities); Halperin, *supra* note 4, at 880-85 (discussing "psychic benefits" such as those of the theater critic who enjoys plays, the teacher who likes to teach, or the lawyer who enjoys arguing cases).

124. See *infra* note 133.

125. See generally SIMONS, *supra* note 25, at 52-53; Haig, *supra* note 25, at 55-58; Marsh, *supra* note 100, at 519-21.

126. See, e.g., Lebowitz, *supra* note 4, at 827-28; Warren, *supra* note 25, at 1096.

tion that such psychic flows of satisfaction *should* be within the scope of income in an ideal income tax has an infectious way of affecting analyses of other issues, such as the taxation of human capital.

In my view, psychic income and leisure, unlike the production of household goods, services, and rental values, are properly left outside the income tax base *as a normative matter*, and not simply because of the problems of administration and valuation. Professors Andrews and Warren have each developed theories that consider the income tax to be properly levied in accordance with one's consumption or savings of the product of society's productive resources in order to share the burden of government in overseeing the use of those resources.¹²⁷ Psychic income and leisure do not

127. Andrews, *supra* note 84; Warren, *supra* note 25; see SIMONS, *supra* note 25, at 49; cf. Lane, *supra* note 118 and discussion in note 118. Professor Andrews focuses on the individual's use of societal resources. His income tax base includes resources that are preclusively appropriated to the individual and that advance the individual's material well-being. Thus the charitable contribution deduction is "proper" because resources have been diverted from the individual's use. Similarly, the medical deduction is "proper" where resources appropriated to the individual's use do not produce greater well-being. Professor Warren emphasizes the individual's share of *social product*, whether directly produced by that individual and his property or obtained through a transfer, e.g., a windfall. Koppelman notes that Warren might support the charitable contribution deduction but not the medical deduction, depending on his position on the full scope of personal deductions. Stanley A. Koppelman, *Personal Deductions under an Ideal Income Tax*, 43 TAX L. REV. 679, 728-29 (1988).

Both the Andrews and Warren positions, however, reflect a common goal to determine the income of individuals relative to one another in terms of the social resources that may be consumed or saved by the individual. See Koppelman, *supra*, at 692. Griffith and Koppelman have asserted that the Andrews theory lacks a foundation in normative principles, apparently because of a failure to deal more directly with issues of distributive justice and individual welfare as more broadly construed; Koppelman believes the Warren theory is similarly deficient. See Griffith, *supra* note 122, at 369, 377; Koppelman, *supra*, at 690, 705. Griffith and Koppelman would seemingly take a more expansive view of the income tax base, although neither is very clear about his approach to human capital accumulation. Furthermore, neither Griffith nor Koppelman seems to supply the kind of normative principle for a comprehensive approach to the income tax base that is asserted to be missing in Andrews' and Warren's theses (or at least not such a principle that would explain and resolve human capital issues). See Griffith, *supra* note 122, at 371-72, 379; Koppelman, *supra*, at 694, 705.

I find the suggestion that the Andrews and Warren positions lack normative foundations to be unpersuasive and even unfair. A premise of both theories is that the income tax base, and ultimately the burden, should reflect an individual's share of social resources, whether viewed as the portion of such resources used by the individual to increase her well-being (Andrews) or as the portion of social product allocated to an individual after interpersonal transfers (Warren). Such approaches are not devoid of normative principle. They may simply be more "neutral" in one sense than other approaches that would seek through the definition of the income tax base to have a different distributional im-

generally add to an individual's ability to lay claim to social resources in the form of goods and services that may be acquired now or in the future.¹²⁸

Those theories that would broaden the notion of income in an ideal income tax beyond accretions that provide command over social resources — to encompass a more philosophical notion of pleasures and benefits within a flow of personal satisfactions¹²⁹ — may be resisted, not simply because of administrative and valuation problems, but also because of a normative infirmity. These theories fail to yield a measurable concept of ability to pay from which a fair tax may be extracted.

Consider three individuals — a lawyer, a farmer, and an "idler," i.e., one who spends his time simply at leisure in his backyard.¹³⁰ The lawyer receives a certain level of cash income from

pact.

Once the income tax base is determined by reference to some principle or complex of principles and administrative or political concerns, the distribution of the tax burden can be adjusted, even dramatically, through the progressive rate structure, exemptions, or similar mechanisms. As Andrews stated, "[i]t is a mistake to think much about personal taxes in flat-rate terms as if graduation were only a minor additional complication." William D. Andrews, *Fairness and the Personal Income Tax: A Reply to Professor Warren*, 88 HARV. L. REV. 947, 955 (1975). See also Griffith, *supra* note 122, at 387-94.

128. See, e.g., Halperin, *supra* note 4, at 882 (suggesting that the exclusion of psychic income from the tax base may be justified by the fact that it is not a limited quantity good which, once consumed, cannot be enjoyed by other members of society); William D. Popkin, *Household Services and Child Care in the Income Tax and Social Security Laws*, 50 IND. L.J. 238, 242 (1975). But see *infra* note 141.

By contrast, household services and rents directly involve such claims on resources, in that social resources are generally consumed or exhausted in the very activity generating goods and services. A taxpayer who grows her own crops consumes *those* resources and, thus, need not seek others in the market. Similarly the taxpayer who owns his own home is consuming the rental value each day as he resides in the home, free of the demands of the housing market.

129. See *supra* note 125 and accompanying text.

130. Marsh, *supra* note 100, at 520, suggests that the leisure properly includible in income might only include active leisure, such as gardening as a hobby. He immediately adds, however, that there is no reason to exempt the idler who neglects his lawn because he likes tall grass and the leisure to contemplate it: "One man's work is another man's leisure . . ." *Id.* Still, Marsh seems to contemplate leaving at least inactive leisure out of the tax base, and as a result he draws back from taxing many forms of imputed income because we would thereby put a premium on idleness. Marsh proposes, as a solution, exempting substantial imputed income to balance the exemption of leisure and restore a balance between work and leisure. *Id.* See SIMONS, *supra* note 25, at 52-53, 111 (noting that the neglect of imputed income may be offset by a comparable neglect of leisure income).

Marsh's suggested solution would seem to make little sense from a perspective focusing on flows of satisfactions because the same flow of satisfactions may be obtained by the person at work in the marketplace, performing household services at home, or

the practice of law and pays for various household services such as child care and gardening. The farmer receives cash income from the sale of crops, plus the value of the crops that are consumed within the household and the value of other household services that are performed within the family, such as child care and gardening. The idler obtains no cash or goods or services of value from his activities, but he spends out of savings in order to finance various consumption needs including child care and gardening.

Clearly the cash income received by the lawyer and the farmer constitute income by any definition. Those receipts have added to their wealth and enable them to lay claim to goods and services, currently or in the future, out of their additions to savings. I would submit that as a theoretical matter the farmer also has imputed income in the form of the crops and child care services consumed within the family.¹³¹ Those goods and services represent the fruits of the performance of services and add to society's overall production of goods and services. The crops and child care are simply consumed directly by the farmer's family, and the family is thus freed from having to devote other income or savings to their purchase.

The idler, however, has gained nothing in terms of his ability to consume or to save for future consumption. His personal consumption needs must come directly from a reduction in savings. It may be argued that he has the enjoyment of leisure or psychic income, but it must be asked what this means in terms of advancing the development of a sensible income tax base. Who is to say that the idler has any more pleasure from his backyard sitting than the lawyer does from the practice of law or the farmer from farming? Indeed the satisfaction that may accompany the latter two activities may far exceed those of the idler.¹³² In whatever way

sitting in the back yard. Moreover, to the extent it is driven by a desire to counteract an incentive toward untaxed leisure, the proposed solution fails to take into account the income effect that may motivate the taxpayer to work in order to obtain greater claims on social resources notwithstanding the tax burden. See *infra* notes 135, 138 and accompanying text.

131. The gardening may be analyzed similarly, although one might as a matter of principle or administration choose to leave it aside on the theory that whether a person would choose to garden is so highly speculative that it is unfair to tax the home gardener for services she might not otherwise choose to purchase in the marketplace. In short, the gardening may properly be viewed as a form of leisure rather than a service that adds to social product.

132. The idler may even be feeling great psychological stress because he is not engaged in "productive" activity. Of course, the flow of satisfactions may go in the other direction

one might sum up and compare the psychic income of the three individuals, it is clear that the lawyer and the farmer have advanced their opportunities for consumption and savings as measured by any market standard, while the idler has not.

Simons and others have suggested that, theoretically, leisure should be viewed as income because it represents an alternative source of satisfactions to work that produces either market earnings or imputed income.¹³³ Economists are concerned that if we tax work and not leisure, we may distort choices between the two by discouraging work.¹³⁴ It has been noted, however, that this "substitution effect" — the incentive to substitute untaxed leisure for taxed work — may be offset by an "income effect."¹³⁵ That is, because one cannot consume social resources out of the fruits of one's leisure and because less market income that can be used for

if the idler quite enjoys his leisure while the lawyer, for example, feels such pressures and anxiety that she is unable to enjoy her pursuits. Such speculation simply emphasizes the inadequacy of this broad notion of flow of satisfactions as a base for income tax purposes.

133. See, e.g., SIMONS, *supra* note 25, at 52-53, 111; Joseph Bankman, *The Case Against Passive Investments: A Critical Appraisal of the Passive Loss Restrictions*, 42 STAN. L. REV. 15, 28 n. 76 (1989); Yorio, *supra* note 122, at 1264; cf. Marsh, *supra* note 100, at 519-20; Lawrence Zelenak, *When Good Preferences Go Bad: A Critical Analysis of the Anti-Tax Shelter Provisions of the Tax Reform Act of 1986*, 67 TEX. L. REV. 499, 546-47 n.158 (1989); *supra* note 130.

Indeed, Simons suggests that the failure to tax imputed income from activities that produce goods and services within the household is offset to a degree, and is therefore arguably justified or at least tolerable, because individuals not generating imputed income through household activities are probably enjoying leisure as an alternative and thus similarly have a form of untaxed income. I find this analysis unsatisfactory, both with respect to the suggestion that leisure ideally should be taxed and also with respect to the "justification" for not taxing imputed income from household services. Consider two individuals, *A* and *B*, who have been performing household services that yield goods and services consumed within the household and that thus represent current consumption of social resources. As alternatives to such activity, *A* might engage in work in the marketplace and receive cash income providing another form of claim on social resources while *B* might "engage in" leisure. *A* and *B* are certainly not similarly well off in terms of their power to consume today or in the future out of savings. *A* has maintained her ability to consume social resources; *B* has not. To treat leisure as an alternative to imputed income from household services (or market income for that matter) is to assume that there is a flow of satisfactions from leisure that can always be equated with the flow of satisfactions from the ability to consume social resources. Even assuming one agreed with that notion as a philosophical matter, the basis for using such a broad notion of income as a base for the income tax is elusive.

134. See SIMONS, *supra* note 25, at 111; Marsh, *supra* note 100, at 520 & n.17; *supra* notes 130, 133.

135. See, e.g., Andrews, *supra* note 84, at 341-42; Chancellor, *supra* note 100, at 598-99.

consumption will be available if such income from work is taxed, the individual will have an incentive to work more in order to make up for the cost of the tax.

The economists' desire to place a value on leisure is easily understood if one returns to the subject of forgone earnings. For many people leisure comes at an economic cost in terms of the market (or imputed) income that might be obtained if one were to use the time spent at leisure in the performance of activities that produce goods and services.¹³⁶ This cost may imply that an asset of equivalent value has been obtained without the expenditure of after-tax dollars and thus, by one theory, such value should be included within the scope of income.

However, by slavishly following this theory in constructing an income tax base, a tax measured by costs rather than gains would emerge. Unless we can rely on costs as a measure of accessions to wealth in the form of current consumption or savings, costs do not acceptably define a base that is consistent with Haig-Simons principles. Thus, the economists' focus on incentives and distortions is important, but not always helpful in determining the contours of an ideal income tax. The ultimate question with respect to forgone earnings is whether, by incurring such cost, the individual has obtained something of value that may appropriately be included in an income tax base. In the case of leisure and psychic income, there is no basis for concluding that the individual who forgoes market or imputed earnings has an accession to wealth that corresponds to that obtained by an individual who has enhanced her ability to consume social resources either now or in the future.

Suppose two taxpayers, X and Y, each have savings of \$1000 on June 1 and will incur a cost of \$1000 each month for basic consumption such as food and housing. X spends the month of June at leisure (doing nothing) and exhausts his savings.¹³⁷ Y works during June and earns \$1000, arriving at the end of June with replenished savings of \$1000. (Ignore taxes on such earnings

136. "Identifying" such a cost in an individual case would be extremely difficult and require numerous assumptions as to rather critical questions. Should the person, including a "non-working" spouse, be *assumed* to have had an alternative workforce option? Should we assume some given numbers of hours of work per person? Could work have been obtained, and at what compensation? See *supra* text accompanying notes 95-99 concerning the determination of forgone earnings.

137. The same analysis could be employed here if we ignore basic consumption and assume a leisure activity that will cost \$1000.

for the moment.) At the end of June, *Y* has an additional \$1000 with which to consume or save, including the possibility of spending July at leisure as *X* did in June. *X*, of course, is without assets. *X* could only "pull even" with *Y* if he were now also to perform services or do something else that would create economic value during July. *X* may, of course, have enjoyed a flow of satisfactions during his month at leisure. But *Y* now has the ability to enjoy a similar flow of satisfactions during July, when *X* must either create economic value or be destitute. Moreover, *Y* may have enjoyed a higher level of psychic income at work than *X* did while doing nothing.

If a tax is imposed on *Y*'s market earnings in June, it will decrease the amount available for consumption out of those earnings. A tax may also reduce the cost of leisure relative to work, but *Y* will also have to work more in order to obtain the same consumption or savings, including the opportunity for leisure. The introduction of a tax on market earnings of \$1000 may be justified because *Y* is "better off" by \$1000 (pre-tax) in terms of the ability to lay claim to resources. *X* has no offsetting gain not enjoyed by *Y* that similarly justifies tax.

Moreover, an effort to tax *X*'s leisure would produce its own distortions by virtue of the fact that an income tax is payable in true market rights — expressed here in dollars. Market income yields a certain number of dollars that can be used to claim social resources, and a portion of those dollars is taken in tax which the government then uses to claim resources. Imputed income from household services yields a certain amount of social resources that can be expressed in dollars and, theoretically, taken in tax. Leisure yields no such claims on social resources. Thus, if leisure were in the tax base, a taxpayer would, through a circular income effect, have to work more in order to generate the claims on resources to pay the tax on leisure that generated no such claims. The additional work would trigger more tax liability, thus requiring still more work to maintain the same level of consumption. At a fifty percent tax rate, a taxpayer who chose to work only half a week and be at leisure during the other half would pay her entire market income in tax — \$500 of each \$1000 of market earnings would be paid in tax on those earnings and the remaining \$500 would have to be paid in tax on the corresponding leisure. Imposing a market-based tax on leisure would thus have the effect of compelling work and

removing the choice for leisure.¹³⁸

This raises a related point about the character of leisure or other psychic income. Because any resulting flow of satisfactions does not provide the means to claim social resources, it seems inappropriate to subject it to a tax expressed only in claims on social resources.¹³⁹ If income were to include a return to the idler in the form of the pleasures from leisure, perhaps the tax on that income should be payable by having the idler give back a portion of such pleasures. Of course, it would be administratively impossible to impose, measure, and collect such a tax. My point, however, is not one of administration. It might also be administratively difficult to collect tax in ears of corn on a farmer's imputed income generated when the farmer grows crops for his family, but we could choose to impose a tax by requiring the farmer to convert into dollars some of his economic value represented by the corn. Here, the point is a normative one: the very nature of the "income" of the idler does not involve economic gain in terms of ability to claim social resources and, thus, there is no reason to assume that a tax should be measured or paid in some currency tied to such resources.¹⁴⁰

c. Inchoate Human Capital Produced Through Education

If in constructing an ideal income tax base we distinguish normatively between (1) "imputed income" from productive services performed within the household or from self-use of durable goods, either of which generates economic gain, and (2) the "imputed income" some would identify from leisure or psychic income

138. See *supra* note 130.

139. As is evident, I find appealing a common theme in both of the Andrews and Warren theories of the income tax, i.e., that we are seeking to extract from each individual, efficiently and equitably, a portion of the social resources that the individual might otherwise appropriate in private consumption (or savings of private claims on resources) so that the collective sum of such claims removed from private consumption may be devoted to public consumption of social resources. See *supra* note 127. I am sure that this principle underlies my response to the treatment of leisure and psychic income and other items that do not give rise to claims on resources. If we wanted a broader tax base encompassing less tangible psychic flows, and if we could figure out how to measure them, we could include them and then lower tax rates because the government would not need to collect such happiness. Obviously, such inclusion in the tax base could rather drastically affect the value one would place on leisure and psychic income. See Halperin, *supra* note 4, at 883-85 & n.50 (citing various examples in which taxation of psychic income would restrict the career choices available to individuals).

140. See Popkin, *supra* note 128, at 242.

that does not produce comparable gain, we may then evaluate the appropriate treatment of the "imputed income" from the development of human capital.

The development of human capital through education has elements that are linked both to imputed income from household services which generate and exhaust claims on social resources and to leisure or psychic income which provides no such claims, at least on a current basis.¹⁴¹ On the one hand, the student toiling away in the school library may be seen as performing services for herself that are generating something of value i.e., an education providing the potential for greater earnings and, thus, greater claims on social resources in the future. On the other hand, in the usual case¹⁴² the student, unlike the worker in the marketplace or the person generating goods and services for himself or his family within the household, will not be able to convert the education, as it is being acquired, directly into command over resources that may be currently consumed or saved.¹⁴³

The student's conversion of human capital derived from education into market claims will depend on the production of greater earnings in the future. The degree of that production will depend on various factors such as economic conditions, native intelligence,

141. Certain leisure may lead to additional human capital, as in the case of ideas generated while walking in the woods. Taking a broad perspective, total human capital derives from many sources other than formal, purchased education. See, e.g., Schultz, *supra* note 41, at 1; see *infra* text accompanying notes 162-63, 172, 194, 313.

142. See *infra* note 155.

143. Lebowitz, *supra* note 4, at 829, dismisses the "forgone earnings"-based argument for imputing income to a student on the grounds that the income tax does not reach amounts that *could* have been earned. That rationale is not persuasive. Lebowitz cites instances where forgone earnings are not accompanied by any material increase in economic value, but those may be distinguished from a student's investment in education. For example, Lebowitz notes that we do not tax the forgone earnings of under-performing assets such as the factory that could have been better used, the building used for the family business that could have produced more income if rented to a more successful chain, or the portfolio of under-performing securities. *Id.* at 829. While this is true, the forgone earnings in those cases do not correspond to any increase in economic consumption or savings, now or in the future. Such forgone earnings may be analogized to those associated with an individual's leisure. These forgone earnings reflect a cost resulting from a particular use of resources. That cost in economic terms translates into a reduction of value, however, rather than the increase in human capital and future earnings potential that results from a student's forgone earnings. See Davenport, *supra* note 4, at 1405-06 & n.31.

In a sense, the student is like a widget-making business that takes resources away from the production of widgets for current sale and uses those resources to manufacture a machine that will enhance its future revenues. Something of true value has been created, but the value will not be reflected in actual market earnings until the future.

personality, relationships, fortuitous circumstances, and personal objectives.¹⁴⁴ In its "raw" state, the human capital acquired through education may provide no more command over social resources than the friendships made by a person at play or the insights from reading a book while at leisure.

3. Implications for Human Capital — A Matter of Timing — A Question of Deferral

The core question is whether the services performed by the student in generating human capital have produced something that should be taxed *at that time*. Implicit in so stating the question, and in the fact that the economic value of the human capital from education lies in the value of any future earnings, is the observation that the alleged "failure" to tax human capital when first acquired by a student through education is not an exemption; rather, it is at most a *deferral*.¹⁴⁵ The value of the student's services performed while pursuing her education will in fact be taxed when, and to the extent that, such value is actually realized in the form of future earnings made possible or more economically rewarding by the education. As noted, the economic value of the student's efforts can be restated in terms of the present value of the increase in her future earnings over what she would earn in the absence of her educational pursuits. That economic value will be exhausted and thus fully reflected when she has realized all of the future earnings that might be attributed to that education.

Thus, the relevant question is a *timing* one. At what point are we going to tax those earnings: when they actually are obtained in dollars?; or earlier, while the human capital that can be used to generate those market earnings is being acquired through self-performed services in school?; or perhaps when the education becomes measurably valuable, as at the time when a graduate or professional degree is earned and the knowledge and skills represented by

144. See generally COHN & GESKE, *supra* note 9, at 49-51 (discussing earnings as a function of factors which include age, religion, ability, experience, motivation, quality of education, and parental background).

145. Professor Stephan has also considered the benefit in terms of deferral. Stephan, *supra* note 5, at 1371-72. Stephen's conclusions with respect to responses in policy are, however, quite different from mine. See *infra* note 202. Other commentators have also focused on the issue of deferral with respect to taxation of human capital. See, e.g., Fellows, *supra* note 5, at 780-82; Klein, *supra* note 5, *passim*; McNulty, *supra* note 4, at 24-25.

that degree become marketable? A decision not to tax until the human capital is manifested in market earnings provides the taxpayer with, at most, a benefit from a deferral of tax. That benefit can be reduced, as is elaborated below, to an exemption of an investment return on what would be the after-tax value of the human capital if it were taxed when first accumulated.¹⁴⁶

Alternative times and methods for taxing human capital accumulations through education. There are three basic choices available in addressing the question of when and to what extent human capital accumulations may be taxed: (1) the human capital could be taxed when it is manifested in claims on social resources through market earnings;¹⁴⁷ (2) it could be taxed "up front" at the time education is obtained; or (3) in light of the problems associated with the "up-front" approach, a surrogate could be devised to achieve, after the fact, the general and approximate results that would have been produced by such "up-front" taxation of human capital. If the surrogate approach were adopted, it should be designed to respond to the particular issues inherent in the exemption of investment income resulting from a deferral of income and the tax thereon. This article examines each of these three approaches, and then turns to the broader implications for the cost recovery and scholarship issues.

a. *Case A — Taxation of Human Capital When Manifested in Market Earnings Permitting Claims on Social Resources*

Under current law, a student's human capital accumulations that are not purchased with cash, with the performance of services, or with other consideration are generally taxed only when manifested in market earnings that provide claims on social resources. Thus, a student is not taxed directly on any imputed income measured by forgone earnings, tuition subsidies, or the present value of expected future earnings. Instead, any unpurchased value of the student's education, as reflected in the actual market earnings generated later

146. See *infra* text accompanying notes 185-91.

147. Human capital accumulations could also be taxed, if desired, when manifested in imputed income from household services, as when an individual who obtains training as a carpenter proceeds to build his own house. Because we do not currently tax such imputed income, we do not tax the related human capital accumulation (except to the extent that it is taxed through market earnings from other work or through a disallowance of cost recovery for out-of-pocket costs of the carpentry training).

with the use of that education, is taxed only through the taxation of those earnings when they are produced.

Some commentators have viewed the absence of "up-front" taxation of unpurchased human capital as a normative failing. As a result, they have supported other means for indirect taxation, including disallowance of cost recovery deductions.¹⁴⁸ Consideration of the imputed income spectrum discussed above suggests that this normative conclusion should not be drawn so easily. The consistent "deferral" of taxation of human capital until it is manifested in actual market earnings may itself be seen as reflecting a normative principle — that the income tax base should include only accessions to wealth that provide the current ability to consume social resources. Such principle would not imply that the income tax as currently constructed is simply a consumption tax. The tax base would still generally encompass accessions to wealth that are added to savings rather than devoted to current consumption. Human capital accumulations would be excluded from that base because of their inability to provide a current *option to consume*.

Professor Klein suggests that an income tax that fails to include in its base an individual's accumulations of human capital when they occur is a consumption-type income tax.¹⁴⁹ That may be precisely what we have if we define a consumption-type tax in this instance to describe a system that taxes those accessions to an individual's store of claims on resources that *could* result in current consumption. The label may suggest a variance from the ideal income tax that some would envision,¹⁵⁰ but it need not be viewed as suggesting an approach that is not normatively based. Indeed, it may reflect a normative principle maintained quite broadly in the present system by relatively conscious choice. That is, the existing income tax reflects decisions that, taken together, rather consistently

148. See *supra* notes 54-56.

149. Klein, *supra* note 5, at 479 (referring to Andrews, *supra* note 104, and asserting that a tax on expenditures rather than a tax on income is more consistent with current law and the failure to take human capital accumulation into account). Andrews and Klein, however, were discussing a true consumption tax that would not include savings in the tax base. The proposal discussed here would tax those accumulations to savings that provide the option for current consumption.

150. Some commentators would strive to achieve a current tax on all economic gains, an alternative which may be perceived as coming closest to the Haig-Simons ideal. See, e.g., Shakow, *supra* note 5, at 1114-18, 1158-63 (advocating a "full-accretion" income tax, though concluding that current taxation of a person's increased earning potential from education may be excluded for practical reasons if, as under current law, amortization of costs is also precluded).

reflect a preference for imposing tax on a base that includes only gains that are considered to provide wealth that could be expended for current consumption.

The current law's approach of taxing human capital only when manifested in market earnings is not limited to human capital acquired through education. For example, if we consider a star baseball pitcher we may quickly identify many points at which his human capital may be said to accumulate.¹⁵¹ We could start at birth, when he may have been blessed with substantial native physical abilities that may have been identified somewhat later.¹⁵² The baseball pitcher's human capital may then have accumulated further through a variety of factors, including parental guidance and teaching, individual hard work to develop his skills, instruction from others (whether or not purchased), and good fortune in a particular performance or in forming relationships that led to greater athletic development and recognition. The player may have attended a college and played on a team with such overall quality that the team advanced to the College World Series, where the player was further recognized and his human capital gained still more value. Then he may have signed with a professional team, with his compensation later increasing in response, at least partly, to the level of his prior performances. Of course, the income tax does not generally reach this player's human capital accumulation at any point until it is converted into actual market earnings.

Notice that some of the player's human capital will increase in value simply by the passage of time. As previously discussed, the economic value of human capital at any given point in time is most accurately described as the present value of all future earnings that may be derived. Thus, to the extent that the value of human capital is attributable to the projected earnings for any particular future year, the value of that portion will increase as that year's earnings draw nearer.¹⁵³ Of course, that increase may be offset by a decrease due to other factors, such as a decline in performance that may cause the future earnings projection to be

151. See generally Klein, *supra* note 5, at 467-69.

152. Of course, one might exclude such at-birth value from an income tax on the theory that it does not represent any kind of accretion during lifetime.

153. Thus, the pitcher's human capital, ignoring all other factors affecting its value, should be worth more on his graduation from college and entry into the professional ranks than it was at age 15, simply because his baseball skills are closer to the time at which market earnings are expected to be realized, thus requiring a lesser discount for the time value of money.

lowered.

As this example illustrates, the notion of not taxing human capital accumulated through unpurchased education until that capital is manifested in future earnings is hardly unusual. Education is simply one of many contributors to human capital accretions that do not give rise to tax until there is a conversion into market claims through an individual's successful exercise of earning power. Indeed, an effort to impose tax up front on human capital obtained through education, or to devise a surrogate for such a tax, without considering similar actions for a broader range of acquired capital may present its own specter of discrimination against the particular type of human capital accumulation derived from formal education.

Beyond the treatment of human capital, a deferral of tax until an event subsequent to capital accumulation is common elsewhere in our income tax system as well. The *realization* requirement with respect to appreciated property somewhat similarly defers tax on an increase in a taxpayer's physical or financial capital until some event that may be considered to provide an appropriate time and means for measuring gain. Of course, the realization requirement is controversial, and it often produces what many would consider to be the wrong result.¹⁵⁴ We might well conclude that an individual should be taxed on an increase in value of her IBM stock during the year because she could sell or borrow against it or otherwise convert it into value that could be used for consumption of goods and services in the market or, alternatively, saved for future consumption.

Human capital is different in that it generally does not provide any means for current consumption of goods and services.¹⁵⁵ Un-

154. See, e.g., Shakow, *supra* note 5, at 1114-18; *infra* note 258. The realization requirement is well entrenched, however, and it is proper to question why we should single out human capital derived from education, in particular, to attempt to achieve the equivalent of taxation of capital accumulations as they occur. See Lebowitz, *supra* note 4, at 829.

155. Certain cases might be excepted, such as the signing of a guaranteed long-term employment contract against which one might borrow. The ability to borrow against human capital more generally presents interesting issues. See, e.g., Warren, *supra* note 25, at 1115-16 (suggesting that legal constraints, such as the inability to become an indentured servant, generally prevent significant borrowing against human capital even though some human capital may have a high market value). If a student is able to fund personal consumption by borrowing against an untaxed increase in human capital, one might conclude that there is more reason to respond with a current tax or a deferral charge. On the other hand, if the borrowing simply finances the education costs themselves, then there is no

til manifested in market earnings, the value of human capital in terms of its command over resources lies in the future and is uncertain because the ability to claim goods and services will depend on a confluence of other contingencies and variables. Thus, even if the realization requirement were abolished as to physical and financial assets that could be converted into cash or assets with which to enjoy current consumption or to save, we might decide that human capital accumulations do not present the same kind of accession to wealth that we should tax.

The current policy of not subjecting most unrealized gains to tax may be seen as a decision to treat such a gain *as if* it were not available for consumption. This policy avoids a situation where a taxpayer may be compelled to sell an appreciated asset and realize gain in order to generate the dollars with which to pay the tax. In effect, the realization requirement *deems* certain assets to be *inchoate* in a sense that human capital more truly is in fact — that is, not generally capable of being currently converted into claims on social resources on which tax might be properly levied.

One may also cite other examples of ways in which our income tax base may be seen as encompassing only deemed current claims on social resources, regardless of whether such claims are presently consumed or are saved for future consumption. For instance, the deduction for contributions to qualified retirement plans may be seen as a statutory device for removing from the tax base capital accumulations that Congress has decided to treat as not available for current consumption because of its desire to encourage the private funding of retirement savings.¹⁵⁶ Similarly, the charitable contributions deduction provides a voluntary means for removing from the tax base amounts that otherwise would be available for the taxpayer's consumption but are diverted elsewhere, albeit at the taxpayer's discretion.¹⁵⁷

gain in the current ability to consume. The tuition and interest costs financed with borrowed funds should be recoverable only against income later earned with the education and, therefore, any resulting tax benefits should not produce a "premature gain." See *infra* text accompanying notes 315-16, 326, 344-45.

156. See Andrews, *supra* note 104, at 1180; Klein, *supra* note 5, at 480; cf. Warren, *supra* note 25, at 1082-83.

157. See Andrews, *supra* note 84, at 344-46 (suggesting that charitable contributions not be included in the tax base; they are distributions to benefit persons likely to be in lower tax brackets, and therefore should not be taxed at the higher rates applicable to personal consumption). Indeed, the charitable contributions deduction raises an interesting parallel to forgone earnings and the issues presented by human capital development. Professor Andrews cites that deduction as an example in developing his model for an ideal income

The inclination of some commentators to apply a "full accretion model" and seek an immediate tax on human capital accumulations from education (or an appropriate surrogate for such a tax)¹⁵⁸ reflects a tendency to view questions of income inclusion under the present system in terms of "good" versus "evil" from the perspective of intellectual disaffection with the realization requirement.¹⁵⁹ The realization rule is seen as inconsistent with the objectives of equity and efficiency that would be served by closer conformity to the Haig-Simons definition of income encompassing all economic gains. From this perspective, the treatment of human capital has been swept along in a generalized effort to eliminate or mitigate the effects of the realization requirement.

tax centered on a taxpayer's preclusive appropriation of social resources. He compares a doctor who works four days a week for gain and devotes the fifth day to working in a clinic for charity with a tax lawyer who works all five days for taxable compensation and then donates to charity the income earned on the fifth day. *Id.* at 347-48. The charitable contributions deduction in principle, though limited by statute, enables the tax lawyer to receive the same treatment as the doctor who simply forgoes taxable compensation. It is assumed that we do not want to tax the doctor's forgone earnings, or at least that Congress is not about to mandate such a result.

It is not clear why the student's forgone earnings should be treated any differently on a *current* basis. The student generally does not have any greater command over social resources than the doctor. It may be said that the student has gained, and retains, something of value, whereas the doctor has given the value of her time away. That begs the question as to the proper tax base, however, by effectively assuming that the student's inchoate economic value in human capital (which may result in future earnings if used in connection with other factors of production such as labor and physical capital) should be included in the base. One could argue, to the contrary, that the doctor or the tax lawyer truly possessed a current command over social resources and should be taxed, although they chose to give away such claims as a matter of personal preference; the student's situation, however, is too speculative to determine any value for inclusion in the tax base. The common link between these cases is the absence, at the end of the day, of a present option to consume social resources or to save for future consumption.

158. See, e.g., Fellows, *supra* note 5, at 780-83; Shakow, *supra* note 5, at 1158-60.

159. It is certainly understandable to think about human capital in connection with the realization requirement. The language of "realizing income" is frequently used when speaking about earned income, as well as gain from appreciated property. Indeed, in its most general sense, the term "realization" suggests nothing more than a point in time where gain of any kind has sufficiently materialized as to be a proper subject for inclusion in an income tax base. The realization requirement has come to connote, however, a rule that is inconsistent with full and current accretion of gains that add to savings. Even if such a full-accretion system is sought, and along with it the abolition of the realization requirement that currently blocks such objective, important issues remain in terms of defining the character and timing of items for inclusion in an income tax base. See Patricia D. White, *Realization, Recognition, Reconciliation, Rationality and the Structure of the Federal Income Tax System*, 88 MICH. L. REV. 2034, 2040 (1990) (noting that the tax system must establish whether taxable items will be included in the tax base currently or in the future).

However, human capital presents some different considerations that may require different treatment. While the Haig-Simons concept of income would include an individual's personal consumption during the year plus any addition to savings, it does not neatly resolve all questions as to the scope or character of the accumulations to savings that should be included in the tax base.¹⁶⁰ A decision to tax currently an increase in value of IBM stock may be easy to justify by those who would reject the realization requirement or who would compensate for its effects on equity and efficiency. We could simply abolish the realization requirement and tax the additional store of property rights that provides command over more goods and services in the market. Whether an accumulation of human capital should be similarly taxed is a more difficult question. The value that it produces does not directly and immediately translate into such an ability to command resources in the market.

Some have argued that with a full accretion system, the tax base should include the increase in value of all intangible assets, including human capital.¹⁶¹ And indeed, there does not appear to be any persuasive reason why abolition of the realization requirement should only extend to financial instruments like stocks and debt instruments. Some intangible assets may be less freely marketable, but that should not necessarily call for different treatment. For example, a sole proprietor may have a business with substantial goodwill. That goodwill is an intangible asset representing very real value in the market, just like IBM stock. The sole proprietor could presumably convert the goodwill into claims on social resources by selling the business or borrowing against its assets, just as he could do with appreciated real estate or stock.

However, more inchoate intangible assets like human capital may be qualitatively different. For example, human capital from education that has not been used in a career will generally¹⁶² be reducible to market value only when converted to earned income through the combined input of factors such as education, hard work, and fortuities. Generally, the student's pre-career work in school has not, at that stage, added to any store of rights that can be exercised in the market.

160. Cf. White, *supra* note 159.

161. See *supra* note 150 and accompanying text and text accompanying note 158.

162. See *supra* note 155.

Consider the treatment of earned income generally, and the human capital from which it is derived, were we to abolish the realization requirement and extend the notion of full and current taxation of economic gains to all human capital and other intangibles. Would we then tax the baseball star, for instance, on the increase in present value of all future earnings at the end of each year, including the increase that occurs simply because of the passage of time that brings future earnings a year closer? Such an approach would involve an annual accounting of all changes in human capital, including the effects of hard work, economic conditions, personal and business relationships, and luck, as well as the passage of time. The result would be a truly radical restructuring of the income tax on personal service earnings.¹⁶³

On a more practical level, it must also be noted that any reports of the death of the realization requirement appear to be premature.¹⁶⁴ If one assumes that a realization requirement will generally be maintained with respect to many kinds of appreciated assets, that may also affect one's normative judgment about the time at which human capital accumulations should be taxed. Further, if one assumes that in any event certain types of human capital accumulation are not going to be taxed currently, such as the increased value of a baseball player's talents after a successful college career, rookie year, and so forth, that too poses a problem of when to include in income the value of human capital acquired through education.¹⁶⁵ Thus, whatever the merits or demerits of a norma-

163. Notice that a person who expected the same salary each year would pay more tax at the beginning of his career than later, based on the up-front accretion in value of the future years' earnings.

Of course, we could avoid the surely impossible task of annual valuation of human capital through the surrogate of a deferral charge imposed when earnings materialize. See *infra* text accompanying notes 184-225. However, such an exercise could require knowledge of the extent to which a particular human capital accumulation contributed to earnings and of the period of deferral involved between accumulation and the production of earnings. These inquiries are also fraught with problems. See COHN & GESKE, *supra* note 9, at 49-51. A more practical approach might be to use a progressive tax rate structure with reasonable gradations. This system would impose, in rough fashion, an additional charge to compensate for deferral on net increases in human capital that create greater future earnings. An additional surcharge on earned income might be considered for taxpayers who were previously in high tax rate brackets. See *infra* text accompanying notes 208-12.

164. See *infra* text accompanying notes 255-60.

165. For example, staying with the baseball hypothetical, should the college baseball player who purchased a college education and who winds up excelling in the College World Series be treated differently in terms of human capital development from the high

tive standard that does not include human capital in income until manifested in market earnings, that standard, considered in isolation, may be considered to produce sound policy in light of the relative discrimination against human capital acquired through education that would otherwise occur if a full-accretion system were not ruthlessly imposed on all types of human capital and other accretions of value.

In sum, it is possible to conclude as a normative matter that human capital accumulations should not be taxed until an individual is able to exercise command over social resources either by actually consuming those resources or by electing, in the alternative, to save for future consumption. This normative position is not compelled, but it has substantial appeal and is not inherently incorrect. (This article next considers alternative positions). If this "deferral" of income and of the associated tax are accepted as a normative matter with respect to human capital accumulations, then there is no policy error that requires a compensating adjustment. In that event, the argument for disallowing cost recovery of out-of-pocket education costs in order to provide such a "correction" falls apart.

Of course, the traditional justification for disallowing education cost recovery is the "personal" characterization of all pre-career education. But we have already seen that this rationale fails, at least with respect to substantial portions of higher education.¹⁶⁶ If we can no longer tolerate that failure as a means to correct some other alleged policy error, then an appropriate cost recovery system should be implemented. The outlines of such a system are discussed below. I will there suggest, contrary to the usual normative analysis, that if human capital accumulations should not be taxed until manifested in the ability to claim social resources, then to be fully consistent with that judgment an *accelerated* cost recovery system should be instituted.¹⁶⁷

school graduate who spent four increasingly successful years in the minor leagues? Under current law, the college player cannot recover his capital costs of attending college, but the minor leaguer effectively is permitted to expense his training costs by not having to include in income the value of the training that he received along with his salary. An attempt to rationalize the failure to permit the college player to recover education costs on the grounds that such disallowance is a surrogate to tax his human capital accumulation up front seems directly contrary to the treatment of the minor leaguer who avoided any such up-front tax on his human capital accretion.

166. See *supra* notes 34-53 and accompanying text.

167. See *infra* text accompanying notes 226-332. As I will discuss, if the deferral of tax

b. Case B — Taxation of Human Capital “Up Front” as Education Is Acquired

While it has been suggested that human capital, at least that obtained through education, should be taxed when acquired and that the failure of the existing income tax system to do so results in a *tax-free* accumulation of capital at odds with the Haig-Simons definition of income, it does not appear that proponents would actually suggest tax bills be sent to students. Problems of valuation, liquidity,¹⁶⁸ and public acceptance would be tremendous. Instead of an actual “up-front” tax, those who would support in theory the taxation of human capital as it accumulates generally look to a surrogate such as a deferral charge or, historically, the denial of cost recovery for out-of-pocket education costs.¹⁶⁹

Such “surrogate taxation” will be addressed shortly. It need only be reached, however, if one first determines that human capital generated through education or otherwise *should*, to some extent, be taxed as a normative matter at the time of accumulation rather than when manifested in greater market earnings. Thus, the case for “up-front” taxation requires examination even though implementation may be in the form of surrogate taxation.

Those who would support up-front taxation of human capital appear to assume that a human capital accumulation is a form of savings that should be included in the tax base in the same manner as an addition to a bank account, real estate holdings, a stock portfolio, or other savings vehicle.¹⁷⁰ As a threshold matter, how-

on human capital until future earnings are obtained is considered unacceptable as a policy matter, a deferral charge might then be imposed, but an accelerated cost recovery method may still be appropriate. Indeed, the case for the accelerated method will inform the determination of the relevant deferral period on the basis of which a deferral charge might be constructed or evaluated. See *infra* text accompanying notes 333-39.

168. It is interesting to consider the possibility of collecting tax in the form of a promissory note from the student. Such a note could be paid off later, when market earnings were generated. The valuation problem could be dealt with by making the principal amount contingent on the future earnings level. A market interest rate could be charged so that the student would not gain the benefit of the investment return on the deferred tax payment, and thus the student would be treated consistently with the non-student who must pay tax on market earnings up front. Such a scheme would arguably achieve the objective of up-front taxation, and it provides a model for the surrogate approaches discussed later. See *infra* text accompanying notes 185-225, 333-39.

169. See *supra* notes 54-59.

170. Most writers have dealt only with the initial acquisition of human capital, concluding that there is an asset of value that has not been fully paid for with after-tax dollars.

ever, one must consider how such savings would be defined and measured, a problem that leads to further issues and insights. Most accurately described in economic terms, the value of human capital acquired through education or otherwise is the present value of the future incremental earnings attributable to the change in the store of human capital.¹⁷¹ Determining that amount in the case of any given student is extremely difficult.

The problem is not simply a practical one which arises because the student's future earnings are unknown. That obstacle could simply lead us to employment of an after-the-fact deferral charge as a surrogate. A more fundamental problem is that an individual's future earnings will be influenced by a great number of contributing factors, and isolating the earnings attributable to a particular source, such as education, will not be possible with any degree of precision.¹⁷²

While statistical analyses determining average earnings attributable to various levels and kinds of education could be invoked in an effort to value a student's human capital accumulated through education, such averages would by their nature subject some students to what may be perceived as serious inequities. Some students would be taxed on projected future earnings greater than the earnings that will actually materialize for them.¹⁷³ On the other hand, other students will realize future earnings in excess of the average that may be projected. Moreover, objections may be raised that efforts to achieve the effect of an up-front tax on such human

Attention has not been focused on subsequent increases in value of human capital as, for example, when it teams up with experience or fortuitous circumstances, or when the future market earnings draw a year closer to fruition, thereby causing their present value to rise. These subsequent increases in value might be left for later taxation because of the realization requirement. It is not at all evident, however, that maintenance of a realization requirement would be consistent with the up-front taxation of human capital accumulations, and many of those who would tax human capital accumulations currently would support abolition of a realization rule. See *supra* notes 158-59. Such an approach would seem to call for taxation of annual increases in human capital value as well as initial accumulations.

171. See *supra* text accompanying note 104.

172. See, e.g., COHN & GESKE, *supra* note 9, at 49-51 (citing fifteen specific variables which may affect estimated future income); THUROW, *supra* note 16, at 47-53. For example, earnings may be increased through education, native intelligence, advantageous upbringing, a pleasing personality, favorable economic circumstances, happy fortuities, and various other factors. Likewise, earnings may be decreased through unfavorable circumstances like a bad start at work due to illness, personality conflict, domestic stress, or inadequate communication among workers.

173. See *supra* notes 107, 157.

capital would simply tax *earning power* and would infringe upon the liberties of the individual. Thus, the student may be *compelled* to engage in certain undesired work, albeit work for which she is educated, in order to increase her earnings to a level that would enable her to pay the tax assessed on her earning power.¹⁷⁴

Beyond the difficulty of isolating the value of human capital from education, what rationale exists for attempting to do so? If we posit that education will generally result in an increase in human capital, let us consider whether that should lead to an up-front tax on the increase in the case of a student who obtains no actual increase in market earnings because, for example, the student graduates in hard economic times or chooses not to pursue the more profitable employment opportunities for which the education has qualified him.¹⁷⁵ Why should we seek the effect of an up-front tax on some abstract education value that is not converted into economic gain? If the education gives rise to income by one definition, is there not some offsetting loss demonstrated by the absence of any net increase in market earnings? If the tax system starts down the road of accounting for accumulations of human capital on a current basis, it may not make sense to limit that approach to just one positive factor such as education. Rather, the tax law arguably should also account for increases and decreases from other factors, including personal choice in future employment.¹⁷⁶

Such an inclusive approach obviously does not contradict the theoretical notion of reflecting changes in human capital in net income on a current basis. Indeed, it broadens that notion. Such an approach is inconsistent, however, with the concept of accounting only for human capital accumulations that are attributable to education or other isolated factors.

174. See *supra* note 107. Consider the law school graduate who could obtain lucrative employment at a Wall Street firm but who desires to pursue a public interest career.

175. As with human capital accumulations from education, it may not be possible to determine with accuracy an up-front measure of factors that may have a negative impact on future earnings. But for purposes of considering the theoretical basis for an up-front tax on human capital, it is important to consider negative as well as positive effects. Both may ultimately recommend a surrogate approach such as a deferral charge that would have the benefit of hindsight.

176. Of course, one could view the decrease in future earnings attributable to an individual's decision to accept less profitable employment as reflecting the replacement of market income with psychic income. See *supra* text accompanying notes 123-40. However, I will assume here a consensus that we should not seek to value and tax psychic income in this or other respects.

Of course, the practical implications of a broader approach to human capital accretions lead directly to using some sort of after-the-fact surrogate. Seeking to take stock annually of the change in one's present value of future earnings as affected by all personal and global changes during the year would be fraught with valuation and administrative difficulties, and would surely be very unpopular. An after-the-fact surrogate could avoid or minimize the problems, and it need not focus on isolated issues such as the deferral of tax on that portion of human capital attributable to education.

Suppose, for example, that it is possible to determine that an individual's education received five years ago "should" have produced an additional \$1000 of earnings this year, but in fact there was no increase in income this year because of an economic downturn last year. One might determine a deferral charge to reflect the failure to tax the then-present value of the education five years ago. At the same time, however, one should construct an offsetting "relief" provision to reflect the failure to allow a deduction for the then-present value of the bad economic news one year ago. Because the net effect is a zero change in present earnings, it makes little sense to impose a surrogate tax only on the education component of human capital. Rather than constructing an elaborate set of surrogates for accumulations to and diminutions in human capital, it may be simpler, and perhaps ultimately more accurate, to take account of net changes in earnings through some sort of surcharge on higher earned income levels that necessarily reflect the combined input of all human capital factors.¹⁷⁷ This approach will be pursued further in the next section.¹⁷⁸

In short, it does not seem normatively sound or desirable to seek the effect of up-front tax on the full present value of future earnings attributable to education *alone*. Rather, the complex of human capital factors that affect future earnings should be taken into account, possibly through a later surrogate that could reflect the net impact of all factors working in combination.

This analysis forces one to come to grips with the merits of accounting on a current basis, whether directly or through a later surrogate, for *all* changes in human capital, including those that arise from wholly external events and from the mere passage of

177. See, e.g., Fellows, *supra* note 5, at 782.

178. See *infra* text accompanying notes 208-12.

time. I suspect that few people would tax the general population because the economy turned upward or because the value of workers' anticipated earnings five years into the future increased as they drew closer in time. The analysis also emphasizes the inchoate nature of education and other human capital factors, an aspect considered above in suggesting that, as a normative matter, the income tax base might be limited to items that give rise to current claims on social resources.¹⁷⁹ Thus, it might be determined that these factors should not be taken into account until the time at which such claims on resources come to fruition.

Ultimately, the question is one of determining the proper purpose and scope of the income tax. If the goal is to extract claims on social resources relative to one's ability to pay, as measured by the accretion of such claims, the present failure to tax human capital up front may be acceptable as a normative matter. Alternatively, one might seek to account currently for all changes in the value of future earning capacity, but the normative rationale for such an approach is less clear. There is a middle approach, however, that may appeal to those who are concerned about the equity and efficiency issues considered above in connection with forgone earnings.

One might conclude that the income tax should not (1) unduly distort the choice between participation in the workforce and pursuit of education and (2) unfairly penalize the person joining the workforce, by taxing work in the marketplace on a current basis while deferring tax on the benefits gained by the student. Thus, one might seek to achieve the effect of up-front taxation of a student's forgone earnings.¹⁸⁰ As considered above, the same issue is presented by the treatment of work and leisure. However, in the case of leisure, we generally assume that no economic value is

179. See *supra* text accompanying notes 148-57.

180. Tuition subsidies might also be taxed up front as a more easily quantified measure of education value obtained without payment of after-tax consideration. But, as noted above, such subsidies may not reflect market value for which a student or her family would be willing to pay. See *supra* text accompanying notes 112-17. Even in the case of an individualized subsidy such as a scholarship, where some students are clearly paying a "retail price" in excess of that paid by the scholarship recipient, it becomes difficult to conclude with certainty that the subsidy represents value that *should* be taxed. There is no single or unified market for education and the student might have obtained comparable education elsewhere at less than such retail price. See Crane, *supra* note 9, at 71-74. Still, an up-front tax or a deferral charge may be appropriate with respect to scholarships in certain cases to avoid an ultimate windfall to a non-needy student. See *infra* text accompanying notes 392-96, 402-04, 409.

produced, so that the failure to tax leisure does not stimulate one *economic* activity over another.¹⁸¹ In the case of education, by contrast, the student may be viewed as producing economic value, albeit inchoate. Thus, there may be greater concern about the ability of the student to accumulate human capital free of current tax while the non-student's consumption and capital accumulation must occur only on an after-tax basis.

This issue deserves further study. It is possible that because the student pursuing education does not generally obtain the ability to consume currently, there may be an income effect as with leisure that creates an incentive for work in the marketplace and counteracts any substitution effect from the failure to tax the student's education efforts on a current basis.¹⁸² On the other hand, more affluent students and their families may be much less affected by the deferral of market earnings.

If one seeks to achieve the effect of an up-front tax on forgone earnings, such earnings might be quantified by reference to some average, minimal wage.¹⁸³ The uncertainty of any particular student's forgone earnings may provide a further reason to employ a surrogate form of taxation at a later time when market earnings are obtained and can be considered "proof" of the education value obtained by the individual.¹⁸⁴ When both the level of forgone earnings and the value of future earnings are speculative, a surrogate for up-front taxation might be employed in order to achieve

181. See *supra* text accompanying notes 123-40. Of course, as there noted, there might be a resulting incentive for leisure relative to any economic activity. However, we also noted that through the income effect, the individual would still have to work in order to eat, thus counteracting any incentive toward leisure introduced by the imposition of a current tax only on work.

182. See *supra* notes 130, 135. Of course, the student presumably is acquiring capital that will be manifested in future earnings supporting even greater consumption in view of the benefit of the deferral of tax. A related concern, however, is that the student may be apt to under-value the human capital because of the risks and uncertainties inherent in the ultimate conversion of the capital into future earnings in the case of any one individual. See THURLOW, *supra* note 16, at 34-35.

183. See *supra* text accompanying notes 97, 109-10, concerning the problems presented in speculating about the market income that an individual student might have been able to earn in the workforce.

184. See *infra* text accompanying notes 198-225. This uncertainty also cuts against employing, as such a surrogate, a policy of denying cost recovery for out-of-pocket costs. Such a policy may work a penalty far greater than any benefit from the deferral of tax on human capital from education, as both forgone earnings and future earnings are speculative and may be minimal. Denial of cost recovery is an irrational and perverse form of surrogate in other respects as well. See *infra* text accompanying notes 192-99.

the effect of an up-front tax either on a supposed level of forgone earnings or on the net value ultimately produced by the education, depending on one's judgment concerning the normative questions of when education value "should" be included in the tax base and for what purpose.

c. Surrogates for Up-Front Taxation of Human Capital Accumulations

Based on the discussion above, two surrogates for the up-front taxation of human capital accumulations should be considered. First, a limited surrogate might be devised to reflect the deferral of tax on a base level of earnings forgone while a student pursued an academic course of study. This approach would be motivated by equity and efficiency concerns about the difference in current tax treatment of student and non-student. Second, and more broadly, a surrogate might be sought for the deferral of tax on net human capital accumulations that lead to higher earned income levels in later years. This approach would roughly reflect the fact that earned income from personal services frequently is received after the time when underlying human capital is built up.

If either of these surrogates for an up-front tax on human capital accumulations is considered necessary or desirable, however, such a surrogate should be designed to address what is really at stake in the difference between the putative up-front taxation of human capital accumulations and the later taxation of actual market earnings that occurs as the human capital is used and ultimately exhausted. As observed above, because the economic value of human capital is fully reflected in the future earnings that may be derived using that capital, the human capital does not escape tax. At most, the taxpayer benefits from a deferral of tax from the time of human capital accumulation until the point at which the value of the capital is manifested in market earnings.

i. Implications from "Deferred Compensation Model"

Two useful models may be employed to analyze and evaluate the deferral issue. The first might be called the "deferred compensation model." This model essentially describes current law with respect to human capital taxation. That is, the taxpayer who works in school to develop human capital through education is effectively compensated for those services, but on a deferred basis when she enters the workforce and to the extent that she obtains greater

earnings than she would have earned without the education. The student is presumably willing to wait to obtain claims on social resources because she anticipates that those claims will be increased by her investment in education. The student is taxed at the time she obtains market earnings in the workforce just as the employee who receives "non-qualified" deferred compensation¹⁸⁵ in a period subsequent to the performance of services would be taxed.

This model is useful because one can readily identify what is at stake in terms of cost to the government or savings to the student from the deferral of tax. As Professor Halperin developed in a series of examples, the benefit to the taxpayer represented by a build-up in untaxed income does not itself give the taxpayer an unfounded benefit or deny the government its fair tax revenues.¹⁸⁶ The government will receive its same percentage, but of a larger pie at a later date, barring a tax rate difference. An unfounded distortion or inequity may be caused by a failure in certain circumstances to tax the investment income earned on funds that in a normative sense should have been included in the tax base at an earlier date but, through exemptions, deductions or other means, are temporarily excluded.¹⁸⁷

185. "Non-qualified" deferred compensation refers to the traditional terminology for an arrangement to defer compensation for services other than "qualified" pension or other retirement savings plan arrangements. Qualified plan arrangements are described in I.R.C. §§ 401-09 and are favored by the Code with a current deduction to the employer, tax-exemption for the plan's investment income, and deferral of tax on the employee until time of distribution. I.R.C. §§ 401-09.

186. Daniel I. Halperin, *Interest in Disguise: Taxing the "Time Value of Money,"* 95 YALE L.J. 506, 519-24 (1986).

187. *Id.* at 522-23; see also Andrews, *supra* note 104, at 1126-28; Calvin H. Johnson, *Soft Money Investing Under the Income Tax*, 1989 U. ILL. L. REV. 1019, *passim*; Klein, *supra* note 5, at 479-80 & n.50; Alvin C. Warren, Jr., *The Timing of Taxes*, 39 NAT'L. TAX J. 499, 501 (1986). Thus, if an employee performs services entitling him to compensation of \$100 and is subject to an income tax rate of 30%, on an accrual basis the employee would pay tax of \$30 to the government, and the government would then capture all of the investment income earned on that \$30. At a 10% rate of return, the government would obtain \$3 of investment income in one year. Now assume that the compensation is deferred for one year under a non-qualified plan that provides for growth through application of the same 10% rate of return. The tax of \$30 on the compensation is deferred and the employee is therefore able to retain the after-tax portion of the investment income (70% of \$3, or \$2.10). This is the equivalent of allowing the employee to invest at a tax-free rate of return the amount that he would have had after tax if his income had been taxed on an accrual basis. In that hypothetical case, the employee would have \$70 of after-tax income and \$7 of "tax-free" investment income, saving \$2.10 over the \$4.90 the employee would have had if the \$7 had been taxed at the 30% rate.

Current law follows a matching principle and defers the employer's deduction until the year of payment. See I.R.C. § 404(a)(5). In this way, the employer may be effectively

In the deferred compensation situation, Halperin's examples demonstrate that the key to ensuring that the government obtains a total tax equivalent to what would be obtained with up-front taxation of the employee is to ensure that the investment income on the tax amount that *should* have been paid to the government up front is effectively collected from *someone*, whether it be the employee through direct or indirect taxation or the employer as a substitute.¹⁸⁸ Such equivalent taxation may be obtained in the non-qualified deferred compensation case by taxing the investment income of a taxable employer who invests the deferred payment in the interim;¹⁸⁹ it will not generally be achieved in the case of qualified retirement plans where the deferred payments are invested through tax-exempt trusts.¹⁹⁰

The effect of deferral in the case of education and human capital — to the extent it is deemed to occur relative to some normative standard — is the same. If one concludes that the tax sys-

taxed on investment income as a substitute for taxing investment income to the employee because, if employer and employee have the same tax bracket, the government now collects \$30 more in tax earlier from the employer and is able to capture the investment income of \$3 on that tax, less the \$.90 that the employer no longer pays in tax on that investment income, for a net of \$2.10. This offsets the savings by the employee. As Halperin's analysis demonstrates, even if the employer were allowed a deduction up front on the accrual method, the investment income still would be effectively taxed to the employer, rather than the employee, if employer and employee had the same tax brackets. The \$30 of temporary tax savings by the employer from the up-front deduction is really invested for the account of the government because that amount is in the hands of a taxpayer — the employer — that is fully taxable on investment income on a current basis. Thus, a year later, when the \$100 of deferred compensation that was held during the year by the employer has grown to \$110 which is then paid over to the employee, the government will obtain the appropriate larger tax of \$33 from the employee, but it will also obtain a tax of \$3 from the employer on its \$10 of investment income. This \$3 will provide the government with the equivalent of the full investment income of \$3 on the initial \$30 of tax that *should*, in an accrual world, have been collected up front from the employee.

On the other hand, if the \$100 deducted up front by the employer had been paid into a qualified, exempt retirement plan, the investment return would be exempt and the government would, in fact, suffer a consequent cost.

188. See *supra* note 187.

189. See *supra* note 187. Equivalence depends on the employer being taxed at the same rate as would have applied to the income of the employee if taxed up front.

190. See *supra* note 187. Depending on the length of deferral and the applicable tax rates, the deferred payout may produce an indirect tax on the investment income in a case where the recipient taxpayer would be subject to a significantly higher tax rate than would have been the case during the period of the deferral. See *infra* text accompanying notes 198-214, concerning a possible indirect tax on the buildup in value of human capital through imposition of a higher tax rate on later market earnings that are generated.

tem *should* have taxed the student up front on a measure of education obtained in excess of tuition and other out-of-pocket costs, then one may view the student as holding an asset that should be in the government's hands. The student is thus able to garner an after-tax investment return on that amount. By contrast, if the tax had been paid up front, all of the investment income would have been captured by the government. The benefit to the taxpayer is the equivalent of earning a tax-free investment return on the after-tax value of an amount being deferred through an up-front exclusion or expensing.¹⁹¹ So analyzed, one can see that a surrogate tax designed to achieve the effect of up-front taxation should address the undertaxation of investment income that may be thought to have occurred by allowing the student to use assets (or avoid the need to borrow funds) that arguably should have been paid earlier as tax.

Denial of cost recovery for out-of-pocket costs is a poor surrogate to compensate for allegedly inadequate taxation of human capital, because denial of cost recovery produces arbitrary and even perverse results.¹⁹² First, it does not address the deferral problem.

191. Suppose, for example, we conclude that a student *should* pay tax on the additional value of education as measured by \$15,000 of forgone earnings. Assume all investments, including human capital from education, increase at an annual pre-tax rate of 10% and that the tax rate is 30%. Assume further that the student has determined that by forgoing \$15,000 of education in Year 1, she will be able to generate incremental earnings in Year 2 that are \$16,500 (\$15,000 plus 10%) greater than what she would have earned without the education. The non-student who earns \$15,000 in the workforce in Year 1 would have \$10,500 after paying a 30% tax of \$4500. If that \$10,500 is invested during Year 2 at a 10% rate of return, it will produce \$1050 of pre-tax income and \$735 of after-tax income, leaving a net accumulation of \$11,235. The student, however, would not be taxed under current law until Year 2. She would pay tax of \$4950 on her additional \$16,500, leaving her with \$11,550. The student ends up with an extra \$315 relative to the non-student because the student has been able to garner 70% of the investment return on the \$4500 ($4500 \times .10 \times .70 = \315) that arguably should have been in the government's hands (with all of the investment return flowing to it) for Year 1. The effect of the deferral is familiar; it is the equivalent of allowing the student to earn a tax-free investment return (10% instead of 7%, for a savings of 3%) on the after-tax value of the human capital accumulation (\$10,500).

192. See Klein, *supra* note 5, at 466 n.19; McNulty, *supra* note 4, at 26.

The disallowance of a deduction for interest on education loans may be seen as, in effect, a part of this surrogate for taxing human capital accumulations. The interest costs should be viewed as capital or business costs properly deductible at some point if we reject the notion that all education is personal consumption. In any event, the impact of denying a deduction for interest on education loans is to tax specially the accumulation of human capital by the student who must borrow, effectively favoring human capital accumulation by the self-financed student. One might suppose that the self-financed student starts out with even more human capital to build on than the student forced to borrow.

Disallowance of cost recovery results in a permanent overstatement of net income, effectively imposing an arbitrary and unwarranted income *inclusion* in response to what is not an exclusion problem but, rather, a timing issue.

Second, the permanent disallowance of education costs imposes an extra tax burden selectively on only those persons who develop human capital through formal, purchased education. Individuals who acquire human capital in other ways, for example, through athletic or musical practice and self-training, on-the-job training,¹⁹³ parental instruction or contacts, or merely the passage of time and the accompanying increase in value of future earnings, face no comparable burden.¹⁹⁴

Moreover, students pursuing formal courses of study at educational institutions will have a greater or lesser adjustment depending on the extent of their tuition and their interest charges on student loans. The scholarship student, whose tuition cost is effectively expensed through the scholarship exclusion,¹⁹⁵ has no tax charge imposed to account for his accumulation of human capital. Students at universities that charge lower tuition due to subsidies, *e.g.*, from governmental funding or from alumni contributions, will suffer less because they will have lower out-of-pocket costs to be denied recovery. This result is contradictory; students receiving tuition subsidies effectively enjoy immediate recovery of costs financed by the untaxed subsidies,¹⁹⁶ even though it is those subsidies that have provided one rationale for denying cost recovery.¹⁹⁷

Thus, once again, the "solution" — or rationalization — does not appear to fit the problem. See *infra* text accompanying notes 340-55.

193. See *infra* note 286.

194. Note also that great increases in physical or financial capital may be obtained tax-free from a decedent through the step-up in basis under I.R.C. § 1014 (providing for a new fair market value basis to be taken by successors to a decedent's property at the date of decedent's death).

195. See *supra* text accompanying notes 84-85.

196. The student whose costs are financed by an untaxed subsidy obtains the same treatment as a student would receive if the student included the subsidy amount in income but was able to offset that amount with an immediate deduction for the constructive tuition payment.

197. See *supra* text accompanying notes 112-17. Indeed, the effect of using a policy of cost recovery disallowance as a surrogate for human capital taxation would be to impose a higher tax on an out-of-state student than on a more highly subsidized in-state student at the same state university. The out-of-state student will generally pay significantly higher tuition and, thus, will effectively be taxed on more net income in the future because of

If the primary goal in proposing a surrogate for up-front taxation is to achieve the effect of a tax on human capital measured by forgone earnings, and thereby improve equity and efficiency vis-à-vis non-students, rejection of cost recovery is similarly arbitrary and also fails to respond to the deferral problem. Students' forgone earnings may vary significantly, yet the students may pay the same non-recoverable tuition and suffer the same added tax burden. Conversely, the forgone earnings of two students may be similar while their tuition charges (subsidized or not), and thus the tax penalty from non-recovery, may vary significantly. Furthermore, a student may have no forgone earnings because her studies enable her to earn more while she is a student, working either part-time or during vacations. Nevertheless, her investment funded by tuition is not recoverable.

A more broadly conceived objective also does not justify denial of cost recovery. If the objective is to replicate accrual of the present value of incremental future earnings obtainable with the education, disallowing cost recovery is ill-suited to the task. Students paying the same law school tuition may generate earnings on a spectrum from those of Wall Street lawyers to those of public interest lawyers, yet they would be subject to the same tax burden through the disallowance of tuition costs and interest charges, except to the extent that the Wall Street lawyers would likely be in a higher tax bracket and would suffer more from the denial of cost recovery. Even adjusting for tax bracket effect, however, disallowing tuition and interest recovery for a lower-paid lawyer may amount to a penalty that captures a much higher percentage of income.

In short, the case for a "rough justice" or "offset" rationale for disallowing education cost recovery deductions as a response to the tax system's failure to account currently for accretions to human capital makes little sense. If a surrogate is required for taxing human capital accumulations, the solution should respond to the deferral "problem" directly. For example, a deferral charge akin to

the failure to allow recovery of the larger capital investment. The in-state student, like a scholarship student, may be viewed as receiving a taxable grant of state assistance which is then constructively paid to the university as tuition and expensed, providing a full and immediate cost recovery for that cost. Perhaps there is some fairness in that treatment because the subsidy may have been financed by the taxpayers of the state, including the resident students' parents, but much of those taxes, i.e., state and local income and property taxes, would also have been fully and immediately deducted for federal income tax purposes when paid.

an interest charge on the deferred tax¹⁹⁸ could be determined by reference to (1) some measure of the build-up in value of human capital arguably undertaxed and (2) the period of deferral between the build-up of capital and the time at which it is ultimately taxed through taxation of earnings generated as a result of its accumulation.¹⁹⁹

If the goal is to treat the forgone earnings of students similarly to the earnings of working non-students, then a deferral charge might be devised that would seek to account for the number of years of deferral before the taxpayer obtains market earnings attributable to the cost measured by the forgone earnings. As discussed above, forgone earnings might be determined by some low average earnings for students of comparable age and educational background. In that way, a conservative estimate of earnings that might have been feasible could be determined, with a deferral charge imposed until such earnings are recovered.²⁰⁰ The notion sounds complex, but it might be simplified through the use of statistical tables applied to earned income.²⁰¹

Before efforts are unleashed to devise a special deferral charge to account for the asserted undertaxation of investment income, careful consideration should be given to assessing the actual extent of such undertaxation and whether an adequate deferral charge may already be built into the system in some respect by virtue of the progressive rate structure. In many cases, the tax rate applicable to a student for the up-front inclusion of human capital would be relatively low, but the rate applicable to the deferred inclusion of that capital accumulation when manifested in later market earnings would be much higher.²⁰² The increase in tax bracket may be

198. Cf. I.R.C. § 453A (imposing an interest charge with respect to tax liability on certain large gains deferred through an installment sale election).

199. The appropriate method of cost recovery, discussed below, will directly affect the determination of the deferral period. See *infra* text accompanying notes 333-39.

200. Determination of the period of deferral is discussed *infra* text accompanying notes 335-36.

201. A similar approach might be adopted if the focus were on a tuition subsidy that was thought capable of being quantified as a measure of human capital. See *supra* notes 112-17.

202. See, e.g., Stephan, *supra* note 5, at 1371-72. Despite Stephan's observations, he is willing to have courts accept the "balance" of current law, demonstrated by its asserted failure to tax human capital accumulations up front and its across-the-board disallowance of cost recovery for out-of-pocket education costs, in the absence of a "signal from Congress." *Id.* at 1409-10. He argues that the deduction for charitable contributions by alumni is a component of the existing balance, representing a type of cost recovery for "deferred

seen as a surcharge on the deferred manifestation of the economic value of human capital accumulations.²⁰³

For example, a nineteen-year old college student might forgo annual earnings of \$10,000 while attending school. Assume that the student's total income would have been \$15,000 as a non-student, but she earns \$5000 working part-time while she is a student and that \$5000 is not taxed because it is offset by the standard deduction and personal exemption. If the forgone \$10,000 had been earned in the market, it would have been taxed at a 15% marginal rate and thus would have given rise to a \$1500 tax. By avoiding this tax up front, the student effectively earns a tax-free return on what would have been after-tax earnings of \$8500 (\$10,000 less \$1500).²⁰⁴ With a gross investment return of eight percent, the student earns \$680 instead of the \$578 she would have earned if the investment income had been subject to a fifteen percent marginal tax rate. Thus, the student would save \$102 in the first year.²⁰⁵ This savings (increased through compounding at an after-tax rate of return) and comparable savings for subsequent years of the deferral period would be reduced or exceeded by subsequent tax costs because the \$10,000 on which tax was deferred (plus the build-up in value that might normally be taxed at fifteen percent over the first several years), along with similar amounts in subsequent years, will likely be taxed at a higher rate when the student ultimately earns additional market income. If we assume a thirty percent marginal rate on those later earnings, the *additional* tax paid on the \$10,000 base amount alone would be \$1500 and would obviously offset the savings from deferral for a number of

payments" for education. *Id.* at 1373. I find this suggestion unpersuasive in dealing with unrecovered tuition costs, especially in view of the *ad hoc* nature and distribution of such alumni contributions.

203. The depreciation model provides another means to analyze the time value effect created by a disparity in the tax rates. *See infra* text accompanying notes 215-25. If human capital were subject to tax when acquired, at a low marginal rate, the amount of such "income" would be included in the individual's tax basis in human capital used in the production of future earnings. Such basis would be recoverable through later depreciation or other cost recovery deductions. These cost recovery deductions would be available for use against income taxed at the higher rate, producing tax savings exceeding the initial tax cost (unless the time value of the deferral benefit were greater).

204. *See supra* notes 185-91 and accompanying text.

205. This is, of course, also the difference between the \$120 of investment income the government "could" have earned (8% on the \$1500 in putative taxes that it did not collect) and the \$18 tax it would collect out of the student's investment income by leaving the \$1500 with the student ($\$1500 \times .08 = \120 ; $\$120 \times .15 = \18). *See supra* text accompanying notes 185-91.

years.

The progressive rate structure is a crude device when used as a means of compensating for deferral of human capital accumulations, particularly today when the rate structure is comparatively flat. Future income may rise due to many factors apart from the contribution made by education (as measured by forgone earnings). Moreover, in some cases there will be no tax bracket change from the time education is obtained until later market income is earned, in which case no additional tax burden will offset a perceived deferral benefit from the absence of an up-front tax on the value of the education. More generally, the calculation of the deferral charge represented by a higher tax rate does not depend on the length of the deferral period, but varies according to total income level and the rate structure imposed by Congress.

However, if in addition to education a wider range of human capital factors is sought to be taken into account in a comprehensive scheme for taxing human capital accumulation, the progressive rate structure may make more sense as a means of dealing with net accretions and diminutions in human capital. Because it is difficult to determine the role a particular human capital factor played in producing market earnings and because there is no obvious reason to single out education (or more narrowly, purchased education) as a surrogate for up-front taxation, the progressive rate system may offer advantages as a method to tax increased earned income from personal services regardless of the human capital factors that led to the increase.²⁰⁶ Even where there is no increase in tax rate and no additional tax imposed, it may frequently be argued that the combination of human capital increases and decreases, as reflected by future earnings, offset each other and therefore eliminate the reason for a deferral charge.²⁰⁷

206. Lane, *supra* note 118, at 29, sets out a theory of an income tax that extends to "exchange transactions" generating an "exchange surplus" that can efficiently be taxed; Lane notes that higher wages tend to reflect substantial exchange surplus that may warrant higher tax rates. Such surplus may be attributed in part to human capital factors that Lane treats as "unearned advantages," such as luck and family connections. The progressive income tax structure may thus serve as a means of removing various advantages ranging from deferral of tax on an earlier human capital accumulation to fortuitous circumstances such as lottery winnings.

207. For example, the increase in human capital resulting from a legal education might be offset by a decrease in human capital (measured as the present value of future earnings) that results from a poor market for legal employment or from an individual's decision to pursue a public interest law career. One might view the public interest career choice as a voluntary charitable contribution that reduces one's ability to consume. *Cf.*

Using the progressive rate structure to impose a charge for accumulations or diminutions of human capital would provide a more sensitive surrogate if the system had more gradations than the current, relatively flat rate structure. Obviously, a totally flat rate structure would provide no means of adjustment for the failure to tax accumulations of human capital or to allow a deduction for diminutions at an earlier point in time.

Moreover, even a relatively progressive rate structure would fail to provide a deferral charge with respect to human capital accumulations of an individual who was in the top tax bracket at the outset. For some cases, an additional deferral charge might be required. Indeed, it might be possible to devise a system of surcharges on earned income that could be more closely related to a perceived period of deferral of human capital taxation than a progressive rate structure. Such earned income surcharges have been suggested to reflect the contribution to earnings made by human capital that was previously favored through deferral.²⁰⁸ One might argue that a surcharge on earned income already exists under the current system which taxes earned income and income from capital at essentially the same rate;²⁰⁹ part of the tax on income from physical or financial capital may be viewed as compensating for the deferral of tax on market appreciation resulting from the realization requirement. Thus, the effective rate on "pure" gain on such assets may be lower. Interestingly, the nominally similar rates on earned income generated with human capital and income from physical and financial capital can then be seen *in both cases* as effectively accomplishing the same twin goals²¹⁰ — imposing a

Andrews, *supra* note 84, at 347. However, at the time of such "reduction," there was no actual opportunity to consume because no claims on social resources yet existed.

Even if a surrogate were sought only with respect to forgone earnings associated with the pursuit of education, it may be appropriate to regard the progressive rate structure as a desirable means to negate a deferral charge if it turns out that other human capital factors have offset the benefits of education and caused income to remain relatively flat.

208. See Fellows, *supra* note 5, at 782.

209. Of course, the 1990 tax act has introduced a small variation, with earned income subject to a top nominal rate of 31% and capital gains subject to a top rate of 28%. I.R.C. § 1 (West Supp. 1992).

210. This analysis obviously oversimplifies the various issues underlying the taxation of earned income derived from human capital and income from physical and financial capital. For example, the historically lower rate on capital gains has typically been supported, *inter alia*, as a means of compensating for inflation. However, the same argument could be made with respect to income earned from certain human capital investments.

“regular” tax and imposing a deferral charge for prior accumulation not taxed at the time of accumulation.²¹¹

One might object to a general earned income surcharge because it does not correspond to the varying degrees of employment of human capital, whereas the progressive rate structure can be used to reflect at least a generalized notion that taxpayers who advance into higher tax brackets have accumulated more human capital, whether through education, birth, natural talents, or other factors. However, consideration of a surcharge need not suggest the abolition of a progressive rate structure; such structure could still be an important component of tax policy toward human capital. The surcharge at each level would simply reflect the fact that all earned income is using human capital to a degree and is generally benefiting from some deferral in tax. Those individuals in higher brackets may simply have and use more human capital. Ultimately the argument for surcharges may suggest greater increments in rate brackets, and perhaps a special surcharge on taxpayers who have consistently been in the highest bracket and for whom the progressive rate structure would not have supplied any deferral charge.

Like the progressive rate structure, a surcharge on all earned income would be a crude device if we are trying to impose a surrogate on certain selective human capital accumulations such as that measured by the forgone earnings of a student. But if the goal is to reflect all kinds of human capital accumulation, however obtained, it may be appropriate. Also, like the progressive rates, a simple rate addition would not reflect the particular deferral period relevant to the use of certain human capital. However, one might argue that the net income in any given period reflects both accumulation and diminution of human capital and the tax rate need not vary with the timing of particular changes in order to produce a fair result overall.²¹²

211. Of course, lottery proceeds are also taxed at the same rate as earned income. Surely, no part of this tax is realistically seen as a deferral charge for the delay in taxing the human capital involved in having the good fortune a year ago to purchase a winning ticket.

Obviously, arguments that the progressive rate structure or the current rates on earned income provide an adequate response to a perceived deferral problem in taxing human capital are after-the-fact defenses. This fact should not negate their potential force. However, further inquiry should be devoted to the design of appropriate tax rates and brackets, taking account of the desired tax treatment of human capital as well as other issues that have traditionally received more attention.

212. For example, suppose a taxpayer earns \$25,000 in Year 1 and \$25,000 in Year 5

In considering human capital, and earned income derived therefrom, from this broader perspective encompassing a number of positive and negative factors that contribute to the store of human capital, attention should be given to the increase in the value of human capital that occurs from the passage of time. As future earnings (or at least earnings potential) draws nearer in time, the present value of those earnings increases. This increase is not now taxed as a general matter. Doing so would be similar to taxing the original issue discount on a fixed payment obligation (which is done) or taxing imputed income on other financial assets such as corporate stock (which is not done as a general matter).²¹³ Some might prefer a comprehensive approach that would involve taxation of imputed returns on all types of assets. With respect to human capital, however, such an approach would involve a radical restructuring of the present taxation of earned income. If such wholesale revision of earned income taxation is not sought, we must be wary of approaches such as the selective surrogate taxation of human capital derived from purchased education which may, on a limited basis, tax imputed income arising with the passage of time.²¹⁴

If more global approaches to the tax treatment of human capital are determined to be too far beyond the appropriate tax policy horizon, a solution tailored to a particular perceived problem must be pursued. Thus, a deferral charge might be devised simply to

(assuming zero inflation). If the taxpayer obtained some education in Year 1 which produced human capital not taxed at that time, a deferral charge might be sought for the period between Year 1 and Year 5. However, it may be argued that whatever that deferral charge, it should be offset by a surrogate for the reduction in human capital from other causes that must have occurred if the net effect was a zero increase in earnings over the period. Because both accumulations and diminutions of human capital are most accurately measured by the present value of movements in future market earnings in one direction or the other, if the net effect on earnings from Year 1 to Year 5 is a wash, the two contemplated surrogates should offset each other as well. If the diminution in human capital, e.g., adverse economic conditions, occurred just one year ago, presumably the present value of the diminution at that time was much greater than the present value of the accumulation from education five years ago. Thus, the net effect of combining (1) a deferral charge with respect to a smaller accumulation over a longer period and (2) an offsetting relief provision with respect to a higher diminution over a shorter period should be zero.

213. See *supra* note 154.

214. As we will explore, the income tax, by simply denying cost recovery as to purchased education costs, may already be imposing what is in effect a tax burden on the increase in present value of human capital resulting from the mere passage of time. See *infra* text accompanying notes 228-318. Anything less than an accelerated form of cost recovery may result in the imputation of income analogous to that arising in conjunction with original issue discount.

address the forgone earnings of a student. Alternatively, a tax surcharge could be imposed on income from professions to respond to the contention that human capital from professional education that is not taxed "up front" is a major factor of production in generating later market earnings of professionals. Such targeted approaches should be structured to take into account an actual or projected deferral period that will vary from individual to individual.

Whether the focus is on these more limited goals or pursuing a more radical approach to the taxation of earned income, the total disallowance of cost recovery deductions for education costs or even for professional education is not a rational response because the impact of such disallowance bears no appropriate relationship to the value of the human capital generated.

ii. Implications from "Depreciation Model"

The other useful model, and perhaps ultimately a more complete one, for analyzing and responding to the deferral of tax on human capital accumulated "tax-free" is a "depreciation model." In such model, untaxed human capital accumulations are considered to have been purchased constructively with taxable funds; the "purchase" gives rise to a tax basis in the human capital which should then be subject to depreciation or other cost recovery deductions. Analyzing the problem of the taxation of human capital accumulations in terms of depreciation will demonstrate that another cost recovery issue is inherent in the deferral question we have been considering. One cannot determine the magnitude of the deferral "problem" and an appropriate response thereto without devising a hypothetical cost recovery method that would be used if the untaxed human capital were in fact taxed up front.

Suppose, for example, that human capital accumulations from unpurchased education were taxed up front. Assume that a student obtained a legal education at an out-of-pocket cost of \$50,000 for tuition and a further cost of forgone earnings of \$50,000. Also assume that the present value of the future earnings to be obtained with that legal education is \$100,000. The student should be treated *as if* she received \$50,000 of taxable cash for her services in pursuing her legal education rather than working in the marketplace, and as if she paid that \$50,000 of constructive cash plus her \$50,000 of actual tuition to the law school as an investment in human capital. If tax were imposed on the additional \$50,000 of

human capital obtained by incurring the cost of the otherwise untaxed forgone earnings, the student should have a total tax basis of \$100,000 in her investment in legal education. The entire \$100,000 should be recovered against the future earnings produced with that human capital.

If the unpurchased accumulation acquired through forgone earnings were taxed up front, recovery of that amount, \$50,000, against future earnings is necessary to avoid double taxation when the value of that human capital materializes in the future earnings. In other words, the inclusion of human capital in income when it is accumulated acts as an acceleration of the inclusion of future market earnings (discounted to present value, or otherwise measured by something like forgone earnings). Imposing taxes on both the accelerated amount and the full amount of market earnings when produced would be duplicative.

The usual method for recovering an investment in a wasting asset that produces earnings over a period of years is through depreciation or other cost recovery deductions. Thus, the question of cost recovery is relevant not only for the student's out-of-pocket tuition costs but also for analyzing the tax treatment of any human capital accumulation that arguably should have been taxed up front.

Of course, as indicated, there seems to be no inclination on the part of those concerned about the failure to tax human capital as it is accumulated to impose an actual up-front tax. Thus, there is no corresponding need to devise an actual cost recovery system for such amounts. However, if a surrogate for up-front taxation, whether in the form of a deferral charge or otherwise, is sought in order to reverse the arguable undertaxation of investment income resulting from the deferred taxation of human capital, then the question of what would be an appropriate cost recovery method to couple with a putative up-front tax becomes relevant in determining the *period of deferral* between the time of a human capital accumulation and the time at which it would be recovered through such cost recovery method.

The deferred compensation model discussed above, which highlighted the undertaxation of investment income as the potential effect of deferral, implies a particular cost recovery method akin to the "open transaction" method described in *Burnet v. Logan*.²¹⁵ Under an open transaction method, a taxpayer's revenue is stacked

215. 283 U.S. 404, 413-14 (1931).

first against invested capital so that capital is recovered prior to the inclusion of any income.

That method makes sense for classic deferred compensation where a specific amount is postponed and received later at a specified time. If deferred compensation were to be taxed up front, the resulting tax basis would be recovered completely and precisely at the time when the corresponding payment is later received. There would be no need to recover the basis over a period in which the taxpayer obtains undifferentiated income attributable to the deferred compensation account and otherwise. Thus, in evaluating the potential tax benefit under a system where there is no up-front taxation at the time when the right to deferred compensation accrues, the period of deferral (in which investment income may be undertaxed) simply runs from the point of accrual (on performance of services) until payment in a later period. The first dollars of income considered to be "related" to the "investment" — the employee's deferred compensation account with the employer — are specifically identified and attributed to that investment when the account pays out.²¹⁶ Determining the deferral period is thus a simple matter.

With unpurchased and untaxed human capital, however, there is not such a particular identifiable sum that is being deferred until a specified point in time. If the open transaction method were used in determining the period of deferral of human capital taxation, presumably the amount putatively taxed up front would be "recovered" upon receipt of the incremental earnings attributable to the education, i.e., those earnings beyond what the taxpayer would be expected to have obtained in the absence of the education.²¹⁷ Determining which earnings are incremental and derived from the human capital acquired through education would be difficult, if not impossible. The education may be seen as playing a role in the production of all undifferentiated earnings, suggesting a capital investment for which the depreciation model is more suitable.

Under the depreciation model, however, the putative human

216. In the case of deferred compensation, those first dollars of income are received as the employee's deferred compensation account with the employer is distributed.

217. This analysis might be described as a modified form of open transaction method because if a taxpayer were to treat the value of unpurchased human capital accumulations as income giving rise to basis at the time of obtaining her education, she would stack not the first dollars of all income against that basis but, rather, only the incremental earnings attributable to the education. The first dollars of market earnings, up to some base level that could have been earned *without* the education, would be fully taxable.

capital accumulation included in income up front would be treated, just like tuition, as a cost to be recovered under an appropriate method over the period in which the education is to be productively used rather than being simply offset against the first incremental dollars of market earnings. Under this model, the deferral that may be considered to result under current law would be determined in a manner reflecting a series of lengths of time between initial accumulation and the points at which portions of such human capital investment would be recovered under the appropriate depreciation method.

If, for example, a human capital accumulation of 500 were to be used in producing market earnings over ten years, a putative income inclusion of the 500 up front combined with a straight-line depreciation method, i.e., recovery of fifty of basis each year for each of the ten years, would indicate a deferral of fifty of income for one year, another fifty for two years, another fifty for three years, and so forth. Notice that an accelerated depreciation method offering more of the cost recovery in early years would reduce the magnitude of deferral; conversely, a decelerated method with less depreciation in early years would increase the magnitude of deferral.

Notice also that while a "pure" open transaction method provides the quickest form of cost recovery because costs are fully stacked against revenues before any income is determined, the modified²¹⁸ form of open transaction method discussed above may result in slower cost recovery in some circumstances than at least some of the faster depreciation methods. A modified open transaction approach modelled on the deferred compensation situation would not allow cost recovery until *incremental* earnings were generated with the human capital from education. Presumably, a general depreciation method would permit a taxpayer to begin recovering human capital costs against all income generated in a related career,²¹⁹ even when that income may not exceed what could have been earned in the absence of the education.²²⁰

218. See *supra* note 217.

219. Education cost recovery deductions should be limited to income generated in a career that reasonably employs the human capital derived from the education in question. See *infra* text accompanying notes 315-16.

220. Of course, these models could be revised in accordance with different judgments about appropriate methods of cost recovery. One could create a deferred compensation model allowing recovery of all education costs before any incremental income is reported, on the theory that it is simply impossible to determine whether any net gain will be

The depreciation model may be more appropriate in determining the period over which income, and the related tax, is arguably deferred if there is an investment in human capital that can be reasonably quantified up front. (Conversely, the situation in which an investment in human capital is reasonably quantifiable up front may be the only circumstance in which the depreciation model is sensibly invoked.) Thus, this model may be invoked to address the concerns of those who would take into account up front a base level of untaxed forgone earnings that may be presumed to be a cost of human capital.²²¹ That amount of capital, along with human capital derived from other factors and the performance of services, may be seen as employed in a career in the production of an "undifferentiated" stream of income. If there is such an up-front investment that can be reasonably quantified, the cost recovery analysis as to that investment may be seen as identical to that for out-of-pocket tuition costs.²²²

By contrast, the deferred compensation model may be more appropriate as to human capital from education not thought to be so readily quantified at time of accumulation. However, the problems of identification and measurement may suggest a more comprehensive approach to earned income more generally. For example, the value of the expected increase in future earnings may vary widely in individual cases. One complication results from the difficulty of identifying precisely how much human capital is attributable to education and how much is attributable to other factors. Furthermore, the fortuity of generating additional income may be considered so indeterminate that an open transaction treatment makes more sense. One might analogize to a hypothetical taxpayer who has performed services that will benefit some future employers (often unknown at this point) and has accumulated a contingent investment in an "account" with those employers. The account will be taxed when it pays out at points in time not easily determined.

This situation, as previously observed, presents the most ques-

produced until the education costs have been fully recovered. In this case, the model becomes equivalent to allowing immediate cost recovery, or expensing, against income produced in a career.

221. See *supra* text accompanying notes 95-111.

222. In these circumstances, the deferred compensation model is useful initially for focusing on what is at stake in deferring tax on human capital. The depreciation model then takes over as a means for determining the relevant period of deferral. Each model provides different insights.

tionable case in favor of correcting for an alleged deferral. In any event, this case does not inexorably lead to the conclusion that a deferral charge is needed to compensate for the entire period of time between obtaining education and generating incremental earnings. Recall that an effort to account broadly in the income tax for the deferral of tax on human capital created through education should account for other human capital accumulations and diminutions as well.²²³ Thus, where a particular up-front education value cannot be identified, it makes little sense to pursue the deferred compensation model in an effort to construct a charge tied to a particular deferral period for education alone.²²⁴ In light of all of the different human capital factors which contribute to the production of these earnings, it may make more sense to rely on some combination of the progressive rate structure or a surcharge on earned income if one believes that an adjustment is necessary.²²⁵

C. A Unified Approach to Human Capital Taxation

Several conclusions may be drawn at this point. First, there is no absolute truth as to the "proper" taxation of human capital in an ideal income tax. The income tax base may properly be viewed as limited to economic gains that provide the option of either current consumption of social resources or savings for the future of those claims on resources. If so, the current "failure" to tax certain human capital accumulations up front is justified and is not in need of corrective action. Alternatively, the income tax may be seen as a government charge that should burden all economic activity in a neutral fashion in order to promote equity and efficiency. In this case a deferral charge may be considered for the failure to tax human capital acquired through forgone earnings or the receipt of an untaxed subsidy, or both, that continues until such untaxed value is manifested in taxable market earnings. Finally, although for reasons I find murkier, the income tax may be seen as most

223. See *supra* text accompanying notes 206-07.

224. Notice also that determining when an individual has obtained incremental earnings, a step necessary for determining a deferral period, would also be fraught with difficulties in individual cases.

225. See *supra* text accompanying notes 205-14. Thus, there may be no reason to impose a specific and greater deferral charge on someone who obtained education ten years ago than someone who obtained education five years ago. If each has the same current market earnings, then the first individual enjoyed a longer deferral period, but with respect to what can now be seen as a lesser amount of human capital (or a greater amount that has been reduced from later diminutions in human capital).

fair and efficient if it achieves the effect of current taxation of any human capital value later proved (through future earnings) to have been acquired through education, among other factors. In such a case, a broad effort might be considered to take account of all human capital factors that may produce increased earned income by imposing a special charge through the progressive rate structure or otherwise.

Second, whatever one's judgment as to the proper scope of human capital taxation, permanently disallowing education cost recovery deductions is not an appropriate response to any perceived inadequacies in the present system. If there is a problem in the system, it is one of deferral and the resulting undertaxation of investment income. Disallowing recovery of out-of-pocket education costs does not solve that problem, and such disallowance creates its own inequities and inefficiencies.

Third, deferred compensation and depreciation models usefully identify the nature of the deferral involved in the taxation of human capital and demonstrate that the magnitude of any deferral problem will depend on the method of depreciation or other cost recovery appropriate for education costs. Thus, exploring such methods is pertinent for *two* reasons: (A) cost recovery should be allowed for out-of-pocket costs and an appropriate method must accordingly be determined; (B) a determination of an appropriate cost recovery method is necessary for an informed analysis of the magnitude of deferral at issue in the taxation of human capital acquired other than with out-of-pocket costs.

Ultimately the tax questions presented by human capital are linked by issues of timing. Whether one believes that human capital accumulations are properly taxed or not depends on one's judgment as to the time at which an item is ripe for inclusion in the tax base. If the "deferral" under current law is deemed improper, the response should address the deferral problem specifically. Cost recovery for out-of-pocket costs of human capital should be allowed, and the appropriate method for recovery will depend, once again, on one's judgment as to the timing issues considered below. That choice of recovery method will, in turn, affect the determination and evaluation of any deferral problem resulting from the "delayed" taxation of human capital accumulations not taxed up front. Finally, the treatment of scholarships and other financial assistance also reduces to issues of the appropriate time for taxing human capital accumulations and, thus, may be integrated into a comprehensive approach to the subject.

1. Implications for Cost Recovery Deductions and Methods of Cost Recovery

a. Case A — Human Capital Properly Taxed Only When Manifested in Market Earnings

It is helpful to consider first the implications for cost recovery if the judgment is reached that human capital accumulations should not, or at least need not, be taxed until the taxpayer obtains market earnings that will provide a current option of either consuming social resources or saving the claims for such consumption in the future.²²⁶

In that event, the absence of cost recovery allowances for tuition, interest, and other out-of-pocket education costs obviously cannot be justified by reference to the tax treatment of human capital accumulations. Because there would then be no infirmity requiring a correction in the taxation of human capital accumulations, there would be no need for a compensating adjustment or surrogate form of taxation.²²⁷

Assuming, then, that an education cost recovery system is needed, the implications for the method of cost recovery and its relationship to human capital accumulation may be more surprising and even more significant. Some observers may think of the issue of cost recovery for education expenditures as one of relatively small import because they presume that such a system would typically involve straight-line depreciation of education costs over many years, with the result that the present value of far-off depreciation deductions would be minimal.²²⁸ Of course, even small

226. Based on the earlier analysis, one might reach this conclusion because of a normative judgment that the income tax base should include only transactions which provide such present command over resources. See *supra* text accompanying notes 148-67. Alternatively, one might so conclude in order to avoid discrimination against human capital investment through education because the current income tax system so universally operates as if only current claims on resources were properly included in the tax base. Accumulations other than current claims on resources are excluded from the tax base through the general failure to tax human capital accumulations, the realization requirement, deductions for retirement savings and charitable contributions, and other such mechanisms. See *supra* text accompanying notes 151-57.

227. Of course, issues unrelated to this "trade-off" rationale still remain. For example, the treatment of particular education costs as personal consumption, as capital investment in an income-producing career, or as a combination of both must be resolved. See *supra* text accompanying notes 16-53. In addition, concern about providing tax benefits to students who may comprise a more affluent segment of society, now or after their education, should and can be addressed. See *supra* text accompanying notes 60-71.

228. See *infra* text accompanying notes 240-45. There have been proposals for much

effects for students on the margin can have a very significant impact.²²⁹ Deductibility of interest costs alone, which need not be stretched out over a depreciation period in the same way as capital costs,²³⁰ could have a substantial effect in any event. More fundamentally, however, and contrary to conventional analysis, I suggest that an *accelerated* form of cost recovery for education costs can be justified as a normative matter. An accelerated approach would place the bulk of education cost recovery deductions into the early years of one's career, potentially producing a far more substantial impact.

Indeed, one may argue that an accelerated approach is compelled if, as in this section, we assume that human capital should be taxed only at the time of conversion into market earnings.²³¹ Anything less than accelerated depreciation of tuition and similar capital costs would result in effectively including in annual income the increase in present value of future years' earnings attributable to human capital so acquired, in contrast to the treatment of other human capital where we include income only when market earnings are generated that provide claims on social resources.²³² A

faster cost recovery systems, but they have generally been put forward as a conscious effort to provide government assistance to education through a "tax expenditure." See *infra* note 239.

229. For students and families stretched to come up with the funds for post-secondary education, any adjustment that reduces the cost of education is helpful. Further, future cost recovery benefits might be present-valued and made available up front as a means of reducing the barriers to entry, at least for some students whose needs might otherwise shut off education opportunities. See *supra* note 71.

230. See *infra* notes 340-55 and accompanying text.

231. Greater depreciation deductions in the early years of one's productive career may also be justified on empirical grounds if the education in question may be found to produce greater income in those years or if the useful life of the education may be found to be considerably shorter than the period to retirement (or life expectancy) that might be posited. However, my argument in this section is not based on these factual premises. Rather, as developed below, my suggestion here would call for accelerating whatever method would otherwise be justified by the facts relating to the period during which the human capital produces income and the rate at which such income is generated. See discussion *infra* text accompanying notes 328-32.

232. One can also view accelerated depreciation of human capital as necessary to be consistent with the treatment of tangible personal property, such as machinery and equipment, where accelerated methods of depreciation are allowed under current law. But it should be noted that the cost recovery methods permitted for physical capital are commonly viewed as a type of "tax expenditure" rather than being normatively grounded. See, e.g., CHIRELSTEIN, *supra* note 2, at 140 (discussing the use of the depreciation allowance as a policy tool to encourage economic growth and expansion); see also *infra* text accompanying notes 239, 242, 332.

depreciation method that takes account of the increase in present value of future receipts is appropriate with respect to many investments in order to reflect most accurately the proportions of receipts representing return-of-capital, on the one hand, and net income, on the other. With human capital investment, however, the conditions for appropriately taking such increase into account do not exist.

The methodology of a cost recovery system for education capital costs, and indeed for costs of developing human capital generally,²³³ has not received extensive examination. The IRS and the courts have been unreceptive to permitting any deduction for these costs, apart from the limited situations contemplated in the section 162 regulations for which current deductions are permitted.²³⁴ As a result, they have given almost no attention to this issue.²³⁵

Most commentators have been focused, understandably, on establishing the general principle that the law incorrectly denies cost recovery as to some types of education costs, and as a result they have not given extensive attention to methods of recovery. Certain commentators have properly repudiated the notion that it would be impossible to estimate any useful life²³⁶ for the human

233. Of course, except to the extent that a taxpayer incurs out-of-pocket costs from after-tax income, as in the case of tuition, the income tax may already effectively permit the taxpayer to expense human capital costs. Forgone earnings may be viewed in this manner, i.e., as income (which should be taxed) that is constructively paid by the student as a cost of education. The exclusion from income of forgone earnings achieves the same result as if the forgone earnings were includible and the constructive payment for education was immediately and fully deductible, producing a wash. Similarly, an excludible scholarship grant may be viewed as taxable income which is then paid over to the school on an expensed basis. See *infra* text accompanying notes 356-63.

234. As noted, some of the education costs covered favorably to taxpayers by the § 162 regulations, such as those expected to improve one's skills in an existing trade or business in a significant way for a number of years to come, are really capital expenditures for which the allowance of a current § 162 deduction seems unduly generous. See *supra* note 24. A cost recovery system, instead of expensing, should apply to those expenditures as well.

235. In *Sharon v. Commissioner*, the court did permit amortization of bar registration fees on a straight-line method over the period of life expectancy. *Sharon v. Commissioner*, 66 T.C. 515, 525-32 (1976), *aff'd*, 591 F.2d 1273 (9th Cir. 1978), *cert. denied*, 442 U.S. 941 (1979). Dissenters in the Tax Court questioned whether the fees' useful life could be properly established. *Id.* at 536 (Scott, J., dissenting); *id.* at 537-38 (Sterrett, J. dissenting).

236. Treas. Reg. § 1.167(a)-3 (1960), which generally permits straight-line depreciation for the costs of intangible property, requires that the useful life of the property be estimatable with reasonable accuracy. Determining a useful life for human capital acquired through education has generally not been debated in the courts because the courts have not supported the concept of cost recovery at all. *But cf.* note 235.

capital arising from education expenditures.²³⁷ They have noted that either life expectancy or an alternative tied specifically to the expected duration of the taxpayer's career would be appropriate and would provide a more predictable period than those frequently accepted in the case of investment in depreciable tangible property.²³⁸ Some observers have suggested arbitrary amortization periods — generally short time spans intended to provide a "tax expenditure" through large deductions in the early years of a student's career —, sometimes as a matter of administrative convenience to avoid having to determine a particular useful life.²³⁹

Apart from those economic and tax scholars who have thought rather deeply about cost recovery systems in general (and whose views will be considered shortly), it seems fair to say that the

It is noteworthy that the § 167 regulations explicitly contemplate use of *estimates* that can be determined with *reasonable* accuracy. Substantial statistical information is available with respect to careers, and if anything, the tax law seems to have developed more favorably toward recognition of statistically estimated lives and projections of developments, such as technological obsolescence. *See, e.g.,* *Liquid Paper Corp. v. United States*, 2 Cl. Ct. 284, 292-94 (1983) (allowing depreciation for a secret formula used in manufacturing a liquid typewriting correction product that was projected to become obsolete with increased usage of word processors). Moreover, even under the existing regulatory scheme it may be possible to use methods for depreciating intangibles, such as the "income forecast method," that do not require a particular useful life. *See infra* notes 244, 248, 329.

237. *See, e.g.,* Argrett, *supra* note 4, at 649; Wolfman, *supra* note 4, at 547; *cf.* Goode, *supra* note 4, at 291-92.

238. *See, e.g.,* Argrett, *supra* note 4, at 649, 655 n.202; Wolfman, *supra* note 4, at 547. Professor Wolfman recognized, prior to the development of more sophisticated economic analysis of human capital, that we might be "able to estimate the productive life of individuals" using data that indicates "the normal retirement age for persons in particular trades and professions." Wolfman, *supra* note 4, at 547. Wolfman further noted that mortality tables, which could be used to estimate life expectancy, were "at least as reliable as the real estate appraiser's estimate of the life of a building, which may be less finite than that of a person." *Id.*

239. *See, e.g.,* Goode, *supra* note 4, at 291-92 (suggesting an arbitrary 10 to 20 year amortization period for the purpose of administrative convenience); Lebowitz, *supra* note 4, at 829-30 (proposing expensing or a five-year amortization as a tax expenditure); Pace, *supra* note 4, at 25-42 (suggesting a five-year period); *cf.* Wolfman, *supra* note 4, at 550 (noting the possibility of accelerated amortization if Congress wants to provide a tax expenditure for human capital as it does for tangible property and research and development expenditures). Compare I.R.C. § 174, which provides for current expensing — the most accelerated form of cost recovery — for qualifying research and development expenditures, or for an elective five-year amortization as an alternative. *See also* John F. Due, *Personal Deductions*, in *COMPREHENSIVE INCOME TAXATION* 37, 42-43 (Joseph A. Pechman ed., 1977) (first proposing 10-year recovery period, then suggesting as a "second best solution" a current deduction for tuition and fees related to current or future income, usable against income from labor of student or spouse with a 10-year carryforward).

straight-line method of depreciation is frequently viewed as a "neutral" benchmark for the recovery of the cost of an asset that produces equal amounts of revenue each year.²⁴⁰ There appears to be a natural symmetry to the straight line method: equal cost recovery deductions allowed against equal net receipts will produce equal net income each year. The logical corollary is that accelerated depreciation (of the kind permitted by section 168 for machinery and equipment)²⁴¹ is generally perceived as providing non-neutral, tax-favored treatment to such property in order to encourage investment in capital equipment and stimulate economic growth.²⁴²

The regulations under section 167 expressly provide for straight-line depreciation of intangibles generally,²⁴³ although there are circumstances where other methods of depreciation may be permitted.²⁴⁴ Advocates of cost recovery for education costs, including those who propose expensing or rapid amortization of education costs as tax expenditures to assist education, typically appear to have assumed that neutral treatment of intangibles would involve straight-line depreciation under section 167.²⁴⁵

240. See, e.g., Treas. Reg. § 1.167(a)-3 (1960) (establishing straight-line depreciation as the standard for intangibles that have a determinable useful life); cf. I.R.C. § 167(b), (c) (providing for the use of accelerated methods only if certain conditions are met).

241. I.R.C. § 168.

242. See CHIRELSTEIN, *supra* note 2, at 140. Of course, if an asset is expected to generate greater income in the earlier years of its life, the "natural symmetry" theory underlying straight-line depreciation would call for adjusting the depreciation schedule in an accelerated manner in order to link cost recovery deductions proportionately with the revenues produced.

243. Treas. Reg. § 1.167(a)-3 (1960); see *supra* note 240.

244. For example, the "income forecast" method is used for motion pictures and certain other intangibles. Under this method depreciation deductions are determined not by reference to a depreciation period, but by the proportion of total projected earnings generated in the current taxable year. See Rev. Rul. 60-358, 1960-2 C.B. 68, amplified by Rev. Rul. 64-273, 1964-2 C.B. 62; see also Associated Patentees, 4 T.C. 979 (1945), acq. 1959-2 C.B. 3, discussed *infra* note 329 (depreciation equal to yearly percentage royalty payments).

245. See, e.g., Argrett, *supra* note 4, at 654-55; Pace, *supra* note 4, at 26. Proponents of more rapid cost recovery over short periods have offered no normative justification for those proposals and have recognized that their approaches would provide a "tax expenditure" form of government assistance for education. They have suggested that their proposals are analogous to the provisions for rapid amortization provided in § 195 (start-up costs) and § 174 (research and development costs). See, e.g., Lebowitz, *supra* note 4, at 830; Pace, *supra* note 4, at 26-27. Interestingly, Lebowitz, while proposing either expensing or short-period amortization of education costs to provide an arbitrary method for assisting students, also suggests that "more scientifically determined or more complicated alternatives" might be used, including "closer approximation to economic depreciation [and] amortization over a person's expected remaining (productive) life." Lebowitz, *supra*

With empirical study, cost recovery approaches might be devised that would reflect with some degree of precision the actual exhaustion of human capital as it generates market earnings over time. An individual will use education to differing degrees over particular time periods, and a more accurately tailored cost recovery system would appropriately relate such use to the income produced. For example, education may play a particularly important role in producing earnings relatively early in a career before being overshadowed by other factors such as on-the-job training, experience, and business relationships.²⁴⁶ If human capital from certain education produces greater revenue in early years, then more of its economic value is consumed in those years. In that event, a more accelerated method of depreciation would be called for, even if one were to accept the premise underlying the straight-line method that costs should be recovered ratably relative to the production of revenues from an investment.

Assuming recognition of the need for recovery of education costs in principle, more detailed study of particular career paths and the use of different kinds of education in those careers might facilitate development of a sophisticated cost recovery system that relates the use of human capital to particular earnings streams. Regulations, and perhaps a supporting statutory change,²⁴⁷ could be adopted to provide the requisite legal authorization for such a system. Such regulations have existed in various forms over the years for machinery and equipment and other tangible property.²⁴⁸

note 4, at 830. Such methods (and, as we will see, "economic" depreciation in particular) would provide cost recovery deductions having enormously lower present values than Leibowitz's own rapid recovery proposals.

246. See, e.g., Argrett, *supra* note 4, at 654-55; Gross, *supra* note 4, at 938.

247. Cf. CHIRELSTEIN, *supra* note 2, at 115 (suggesting that the denial of education and training expenses is of such long standing that a reversal of policy would now require Congressional action to establish the relevant criteria).

248. Alternatively, it might be possible under existing law to apply a version of the income forecast method to education costs, provided there is sufficient information with which to determine projected incremental earnings from a particular career path. See *supra* note 32 and *infra* note 329. Such a method would require frequent adjustments for changes in employment and income level. Suppose, for example, that a law school graduate chooses public interest law after law school. A relatively low earnings projection should be used at the outset so that such person's early depreciation deductions are not trivial as they would be if his income were compared to statistically-determined, average lawyer incomes that are significantly larger. If this taxpayer then moved to a Wall Street law firm, an adjustment would be required so that the denominator of expected future income would greatly increase. Otherwise, depreciation deductions would unduly rise as larger annual earnings are generated.

For purposes of the discussion that follows, however, I will put aside such empirical inquiry and make a common and simplifying assumption in order to examine cost recovery methods from a normative perspective. I will assume that the wasting capital asset in question, whether human capital or otherwise, will produce the same amount of net receipts each year during the period in which it is used to produce income.²⁴⁹ If information is gained in practice that would allow us to modify this hypothesis, permitting development of specially-tailored depreciation schedules reflecting projected income curves and levels for particular kinds of education,²⁵⁰ we can then make adjustments to reflect particular changes from the "base case" I am positing.

i. Determining A Normative Cost Recovery Method —
Consideration of Economic Depreciation and
Cost Allocation Methods

Determining a normative method of cost recovery for education and other human capital costs is very much intertwined with the fundamental issues considered above concerning the timing of the taxation of human capital accumulations and, ultimately, earned income generally.

We may begin by considering the situation if we employed a pure full-accretion system to tax an individual's net income under Haig-Simons principles.²⁵¹ In seeking to reflect in income currently the net change in an individual's savings, we would presumably include in a student's income the present value of all future earnings from the education she has obtained, representing a positive accumulation of human capital.²⁵² We would at the same

249. See *infra* text accompanying notes 265-73.

250. A problem with developing such schedules is the difficulty in relating earned income to *particular* human capital factors. Education is just one contributor, albeit an important one, to an individual taxpayer's actual production of income. See *supra* text accompanying notes 151-54. However, general depreciation methods necessarily rely on statistical analysis and averages, and it may thus be appropriate, as well as possible, to create methods that reflect earnings assumptions about particular types of education and careers.

251. See SIMONS, *supra* note 25, at 50 (defining personal income as including all additions to wealth in the form of personal consumption or net additions to savings); *supra* note 25.

252. Obviously this approach would resolve, at one extreme, the question of whether or not to include human capital accumulations in income prior to their manifestation in market earnings. See *supra* text accompanying notes 148-84. Such inclusion would occur. This approach, at odds with the general working assumption in this part of the discussion, is

time allow a current deduction for the reduction in cash or other savings attributable to the out-of-pocket cost of the education. In this manner we would match income with expense and only tax net income in the form of a net accumulation.²⁵³ Then, as time goes on, the taxpayer would take into account each year the increments in the present values of future earnings as they become ever closer and as such values increase. Similarly, the taxpayer would deduct any decline in the value of the future earnings. With such a system, there would be no reason for depreciation or any other cost recovery because all changes in the value of capital assets would be accounted for currently.

Of course, we do not have such a pure system. Rather, we have an income tax base that generally encompasses earned income only when reflected in the receipt of market claims on social resources.²⁵⁴ Further, we have a realization requirement,²⁵⁵ so that

being considered here simply for purposes of developing the analysis. I do not believe that Congress or our society is close to adopting such a comprehensive approach to the taxation of earned income and human capital.

253. See SIMONS, *supra* note 25, at 50; *supra* note 25. In Haig-Simons terms, there would not yet have been any consumption (putting aside any personal consumption aspects to the education), but there may have been a net accumulation to the extent that there is an increase to savings in the form of the excess (if any) of the value of the human capital acquired over the out-of-pocket expenditures made. Of course, as a very theoretical matter, the total cost of the education in a perfect market would equal the present value of the future earnings (again, putting aside any personal consumption value of the education). However, part of the value of the education may be paid for with tuition subsidies or forgone earnings that does not involve a payment by the student out of previously taxed savings. (I will, for the moment, ignore the fact that tuition payments may be made with after-tax dollars of a parent that are effectively received by the student as a gift. Simons, of course, would have taxed gifts. *Id.* at 56.) See *supra* text accompanying notes 95-117. Additionally, the market is hardly perfect, because different students may pay the same tuition for very different projections of future earnings or may pay different amounts for similar future earnings expectations. See *supra* text accompanying notes 171-76 and *infra* note 320.

254. See *supra* text accompanying notes 151-53.

255. See *supra* text accompanying notes 154-59. There are exceptions. For example, gain may be recognized in the absence of a realization event with respect to certain financial instruments that are "marked to market," i.e., treated as sold at the end of the year. I.R.C. § 1256. More fundamentally, as discussed above, there may be good reasons for the realization requirement to be generally eliminated and to account currently for certain gains or other income and losses, or to impose a surrogate therefor, e.g., by imputing and taxing income deemed to represent appreciation in an asset. At this point, however, the tax law accounts for appreciation or imputed income only in limited circumstances. Thus, the realization requirement as to property, and more generally the taxation of earned income only when market earnings may be obtained, are important considerations in evaluating the treatment of income generated with the use of particular human capital such as that derived from education.

an item of income in respect of an asset held by a taxpayer is not normally taken into account until there is a disposition of the asset or an item of income is severed or severable from a mass of capital.²⁵⁶ Thus, the appreciation in value of an asset is not normally included in income until the occurrence of a realization event, such as a disposition of the asset. At disposition, gain is determined and taxed. Income from future personal services is not included until paid or accrued, even though an individual may have the expectation of generating those earnings through the use or exploitation of human capital or some other intangible asset including natural talent, intelligence, experience, fortuitous circumstances, or a valuable education,²⁵⁷ and even though the value of that expectation increases as future projected earnings draw nearer in time.

The realization requirement is controversial in some contexts, such as a taxpayer's holding of tangible property and financial instruments that have appreciated in value. Some scholars would reject or limit the realization requirement, or may tolerate it only grudgingly.²⁵⁸ Adjustments have been advocated in particular situations.²⁵⁹ Nevertheless, the realization requirement continues to be with us and is generally accepted as a necessity of tax adminis-

256. Of course in some cases, such as those covered by the original issue discount ("OID") rules, see I.R.C. § 1273 and related provisions, cash basis taxpayers may be effectively placed on the accrual method and, like accrual method taxpayers, be required to include income before it is received or, as a matter of form, before it is even severable from the capital. Nevertheless, the taxpayer is not usually required to include an amount in income simply because he or she has an asset of value, whether tangible or intangible, that may be *expected* to generate cash receipts in the future, even if the asset may have risen in value due to such expectations. With OID, it is the *fixed right* to the implicit interest inherent in the discount and payable on maturity that makes the OID includible by holders for tax purpose. An assumed but inchoate increase in the value of human capital presents a distinguishable situation, at least in terms of traditional notions of accrual accounting, because in that case future market earnings are dependent on the confluence of a number of variables including economic conditions, the taxpayer's work effort, and personal career choices.

257. See *supra* note 256 and accompanying text.

258. See, e.g., Fellows, *supra* note 5, at 724-28; Johnson, *supra* note 187, at 1046 n.90; Shakow, *supra* note 5, at 1118-19.

259. See, e.g., James W. Wetzler, *Capital Gains and Losses*, in COMPREHENSIVE INCOME TAXATION, *supra* note 239, at 120 (supporting an interest charge as a means of limiting benefits of deferral resulting from the realization requirement with respect to gains on capital assets); Roger Brinner & Alicia Munnell, *Taxation of Capital Gains: Inflation and Other Problems*, NEW ENG. ECON. REV. (Sept.-Oct. 1974) at 1, 15-17 (recommending the interest charge later supported in Wetzler, *supra*); Shakow, *supra* note 5, at 1122-24; cf. I.R.C. § 453A (imposing an interest charge on tax due on certain realized gains deferred through the installment sale election).

tration, even if it is not conceptually correct. While adjustments may be made, including imputation of income in certain cases as a surrogate for taxing realized gains, the tax system is not likely to move to an annual accounting of all increases and decreases in property values.²⁶⁰

In the case of earnings produced through human capital from education, as with the earned income of individuals generally, income is not usually taken into account until it is received in the form of market earnings, or at least the legal right to receive those earnings has accrued. As this article has been exploring, more than the traditional realization requirement underlies this treatment of human capital. Unlike appreciated real estate or securities, human capital cannot generally be converted into claims on social resources.²⁶¹ Obviously there are substantial risks associated with earning income that may be generated from various human capital sources. The earnings will depend on individual work effort, economic conditions, fortuities, and other factors, all of which involve contingencies. Thus, a change in the law that would tax the value of future market earnings expected from human capital prior to the performance of services in the workforce seems a less likely alternative than modification of the realization rule.

Absent a full-accretion income tax that accounts on a current basis for all changes in the value of savings and investment, some system of capital cost recovery becomes necessary. At some time, the potential revenues resulting from an investment — whether in the form of receipts from time to time, the proceeds of disposition, or both — will be obtained and “realized.” If such revenues are included in income without taking account of the cost of the investment, the net income would be overstated. A classic wasting asset, such as a machine, generates revenues over its useful life, while at the same time it is inevitably and inexorably approaching a point at which those revenues will cease and it will have no remaining value. We traditionally recover the cost of such wasting assets through depreciation deductions. Those deductions reflect the fact that only part of the net receipts constitute profit; our expectation is that a portion of capital in which savings were invested has been depleted or consumed.²⁶²

260. See generally SIMONS, *supra* note 25, at 162; Richard Goode, *The Economic Definition of Income*, in COMPREHENSIVE INCOME TAXATION, *supra* note 239, at 20-21.

261. See *supra* notes 160-63 and accompanying text.

262. See, e.g., Davenport, *supra* note 10, at 1404. One commentator has stated that

A little more than a decade ago, a debate occurred in the legal literature as to what methods of depreciation were appropriate tax law benchmarks for an asset that will produce an equal amount of net receipts each year.²⁶³ More specifically, the question presented was whether a particular method should be preferred as a normative matter because it achieves an accurate measurement of net income. The question of whether to use depreciation as a "tax ex-

"[a]n income tax that strictly applied the realization doctrine would not allow a reduction of the tax base for depreciation" because "[d]epreciation is an unrealized loss." John P. Steines, *Income Tax Allowances for Cost Recovery*, 40 TAX L. REV. 483, 499 (1985). See also Michael J. McIntyre, *More Give and Take on Accelerated Depreciation*, 53 TAX NOTES 1319 (Dec. 16, 1991); Calvin H. Johnson, *Kahn Depreciation and the Mintax Baseline in Accounting for Costs*, 53 TAX NOTES 1523, 1526-27 (Dec. 30, 1991). The relationship between realization and cost recovery may be viewed quite differently, however. Assume a taxpayer pays \$4000 for a wasting asset that will produce future revenues present-valued at the same \$4000. The subsequent receipt of revenues, which are included in income, may be said to reflect the actual disposition of part of the asset, thus requiring a recovery of the capital invested in that part. In a sense, use of the asset for a year triggers a realization event with respect to that part of the asset no longer of economic utility. See Davenport, *supra* note 10, at 1404. Indeed, if the realization doctrine were strictly applied, it could be argued that no income should be realized until all costs are recovered so that it can be ascertained with certainty that a gain has been realized. This is an open transaction cost recovery approach. *Burnet v. Logan*, 283 U.S. 404, 413 (1931). It makes little sense in this context. Instead, by using a periodic cost recovery system like depreciation, we have modified the realization doctrine to reflect net income more consistently with our expectations by matching the realized revenues from a wasting asset with deductions reflecting the disposition of that part of the asset being consumed while generating those revenues. See *infra* text accompanying notes 308-09, 318-20.

263. See Douglas A. Kahn, *Accelerated Depreciation—Tax Expenditure or a Proper Allowance for Measuring Net Income?*, 78 MICH. L. REV. 1, 12 (1979) [hereinafter *Accelerated Depreciation*] (arguing for accelerated depreciation); Walter J. Blum, *Accelerated Depreciation: A Proper Allowance for Measuring Net Income?!!*, 78 MICH. L. REV. 1172 (1980) (disagreeing with Kahn and arguing for either decelerated or, more practically, straight-line depreciation); Douglas A. Kahn, *Accelerated Depreciation Revisited — A Reply to Professor Blum*, 78 MICH. L. REV. 1185 (1980) [hereinafter *Reply*]; see also CHIRELSTEIN, *supra* note 2, at 140-45; Johnson, *supra* note 187, at 1046-47 & n.90; Steines, *supra* note 262, at 492.

For a recent reprise to this debate, see Douglas A. Kahn, *Further Kahn-tribution to the Depreciation Debate*, 54 TAX NOTES 1689 (Mar. 30, 1992) [hereinafter *Further Kahn-tribution*]; Joseph M. Dodge, *Normative Depreciation Run into the Ground*, 54 TAX NOTES 1567 (Mar. 23, 1992); Michael J. McIntyre, *Depreciation Redux*, 54 TAX NOTES 1569 (Mar. 23, 1992); Davenport, *supra* note 10; Deborah A. Geier, *Back to Accelerated Depreciation Basics*, 54 TAX NOTES 459 (Jan. 27, 1992); Johnson, *supra* note 262; Michael L. Schler, *The Case (Law) for Accelerated Depreciation*, 53 TAX NOTES 1430 (Dec. 23, 1991); Douglas A. Kahn, *Kahn Responds*, 53 TAX NOTES 1319 (Dec. 16, 1991) [hereinafter *Kahn Response*]; McIntyre, *supra* note 262; Douglas A. Kahn, *Kahn Defends Stance on Accelerated Depreciation*, 53 TAX NOTES 1079 (Dec. 2, 1991) [hereinafter *Kahn Defense*]; Calvin H. Johnson, *Kahn's Accelerated Depreciation Is Not Normative*, 52 TAX NOTES 858 (Nov. 18, 1991) [hereinafter *November Letter*]; Davenport, *supra* note 4.

penditure," to provide an economic incentive by accelerating the rate of cost recovery beyond what is "normative," was appropriately treated as a separate issue. According to one view, well articulated by Professor Chirelstein and supported by Professor Blum and others entering the debate, the straight-line method is actually *too accelerated*, notwithstanding the superficial symmetry of ratable depreciation in proportion to the net receipts generated.²⁶⁴ According to another view, advanced by Professor Kahn, straight-line is actually too slow,²⁶⁵ and a method of depreciation traditionally viewed as accelerated, i.e., faster than straight-line, may be properly used in measuring net income, not simply as a means to provide a stimulus or subsidy to investment.

Chirelstein's position follows the economic approach charted by Samuelson and posits that the most accurate method of cost recovery for an asset producing a constant stream of revenue is a form of *decelerated* (slower than straight-line) depreciation. This method of cost recovery has been variously called "economic," "sinking fund" or "Samuelson" depreciation.²⁶⁶ Applying this theory, less depreciation is allowed in the earlier years of a wasting asset's useful life, with gradually increasing cost recoveries over time. Accordingly, income from use of the property is greatest in its early years and declines over time. This approach is "economic" in that it seeks to match the depreciation deductions with the decline in present value of the asset as a whole. The asset is presumed to have its greatest value at the outset, when it has its full earnings potential ahead; it is assumed that the asset will at that point produce the greatest economic return. As the asset is exhausted through use, its value will decline. The present value of its future earnings decreases because there are fewer productive years ahead. Thus, it is assumed that the economic return to the asset should decrease with time. This decelerated cost recovery method is consistent with the method for recovering principal in a standard

264. See *supra* note 263. Chirelstein draws upon the economic analysis and conclusions in Paul A. Samuelson, *Tax Deductibility of Economic Depreciation to Insure Invariant Valuations*, 72 J. POL. ECON. 604, 606 (1964) (concluding that if investment decisions are to be independent of tax considerations, then depreciation should reflect only the decline in economic value of the asset). See also Johnson, *supra* note 187, at 1039-62; Warren, *supra* note 78, at 550-51.

265. See *supra* note 263.

266. See, e.g., CHIRELSTEIN, *supra* note 2, at 142-45; Johnson, *supra* note 187, at 1039; Samuelson, *supra* note 264, at 606; Warren, *supra* note 78, at 550; see also *supra* note 264.

home mortgage loan.²⁶⁷

The "economic" method, which makes sense as applied to investments in many wasting assets, is best understood with an example. As indicated, Chirelstein looks at the problem of cost recovery by observing the yearly decline in the *value* of the asset. This figure is determined by valuing the asset on the basis of the present value of the future earnings from the asset over its life. Chirelstein considers a machine that costs \$4000, has a useful life of five years, and is expected to generate gross income of \$1200 per year (net of maintenance expenses). The hypothetical machine reflects a before-tax return on investment of about fifteen percent. (For ease of analysis, the machine will conveniently die at the end of Year 5.) When the machine is purchased at the beginning of Year 1 the schedule of present values is illustrated as follows:

TABLE A²⁶⁸

Year:	1	2	3	4	5	Totals
Expected receipt	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200	\$6,000
Present Value	\$1,045	\$ 905	\$ 790	\$ 687	\$ 573	\$4,000

The present value of the \$1200 to be received in Year 1 is about \$1045, the present value of the \$1200 to be received in Year 2 is about \$905, and so forth.²⁶⁹ The present value figures total up to the \$4000 cost that someone would presumably pay today in order to obtain a fifteen percent rate of return. These figures reflect the fact that the value today of future receipts will be discounted due to the time value of money; the present value of each year's receipts will be lower as the expected time of receipt is further off in the future.

As each year progresses, the present value of the *aggregate* remaining payments obviously declines because there will be fewer years of payments to come. On the other hand, the present value of any *single* future year's gross income will rise as receipt of the income draws closer in time. Thus, for example, the present value

.267. See CHIRELSTEIN, *supra* note 2, at 144.

268. *Id.* at 143.

269. Some of the residual figures in Chirelstein's numbers are rounded to make the example easier to follow.

of the Year 2 \$1200 gross income item, which was \$905 at the beginning of Year 1, will become \$1045 at the beginning of Year 2, the same value that the Year 1 gross income item had at the beginning of Year 1. Chirelstein presents a schedule of the yearly decline in the present value of the aggregate investment. The schedule also reflects the yearly increase in the present value of each remaining year's gross income.

TABLE B²⁷⁰

	Present Value of Investment	Present Value of Remaining Payments					Annual Loss in Present Value	
		1	2	3	4	5		
		Start of Year 1	\$4,000	\$1,045	905	790		687
End of Year 1	3,427		1,045	905	790	687	\$ 573	
End of Year 2	2,740			1,045	905	790	687	
End of Year 3	1,950				1,045	905	790	
End of Year 4	1,045					1,045	905	
End of Year 5	-0-						1,045	
								Total: \$4,000

Chirelstein appropriately concludes, as demonstrated by the last column of numbers, that the decline in the present value of the investment is roughly \$573 during Year 1, \$687 during Year 2, and so forth. The diminishing figures reflect an increasing rate of decline in value of the investment. Chirelstein suggests that, in principle, where expected net receipts "are level from period to period, the sinking-fund method is the *only* proper method of apportioning the taxpayer's capital investment in accordance with the economic cost of use."²⁷¹ Therefore, he concludes, the sinking

270. CHIRELSTEIN, *supra* note 2, at 143.

271. *Id.* at 144. Chirelstein admits that the case for the sinking fund method is the clearest where the income from an asset is fixed or can be determined "without engaging in predictions and projections which depend entirely on future events." *Id.* As a result, the method is easier to apply in determining income from a mortgage loan or a lease that has a yield fixed by contract. Chirelstein recognizes that estimates of annual future revenues are difficult to make with wasting depreciable assets such as machinery and equipment and that depreciation methods used in practice might appropriately, or at least understandably, differ. *Id.* at 144. Still, if one can make the level receipts assumption I am

fund method should be used to measure depreciation deductions in the hypothetical case involving the assumption of equal receipts in each year.

Kahn has advocated a cost allocation approach directly contrary to Chirelstein's approach.²⁷² The cost allocation method is, in effect, the inverse of the sinking fund method; it results in *accelerated* depreciation relative to the straight-line method. Kahn's theory does not depend on any objective evidence that an asset is producing more income in the early years of its life. Rather, for purposes of analysis, Kahn, like Chirelstein, is willing to rest on the same assumption made here — that the wasting asset will generate the same amount of revenues (net of maintenance expenses) in each year of its useful life.

Kahn employs Chirelstein's example, focusing first on the fact that the present value of the \$1200 gross income item to be received in Year 1 was \$1045 at the beginning of Year 1. Kahn reasons that \$1045 is the amount someone would pay for the revenues to be generated in Year 1, and thus it is also the proper measure of the cost of that part of the asset necessarily consumed in Year 1.²⁷³ Similarly, the cost that should be attributed to the present value for Year 2, and thus the part of the asset consumed in Year 2, would be the present value at the beginning of Year 1 of the second year's \$1200 gross income, or \$905. Presumably someone would pay \$905 at the outset for use of the asset in Year 2. The pattern continues: original capital cost is allocated to each subsequent year's income stream on a declining basis.

This approach makes intuitive sense to Kahn and others²⁷⁴ because an investor would pay more to obtain a certain amount of cash next year than she would pay to obtain that same amount a year further into the future. Kahn therefore computes depreciation deductions by allocating cost separately to each future year's portion of the receipts to be generated with the asset, treating each year's depreciation as that portion of the asset's original cost putatively paid for the receipts projected for that year. The allocated

positing here, then Chirelstein concludes that anything faster than the sinking fund method, including straightline, "turns out to be accelerated" relative to a method that would produce an accurate measurement of net income. *Id.* at 144-45.

272. Kahn, *Accelerated Depreciation*, *supra* note 263, at 35; Kahn, *Reply*, *supra* note 263, at 1198-99.

273. Kahn, *Accelerated Depreciation*, *supra* note 263, at 35.

274. *See, e.g.*, Geier, *supra* note 263, at 460-63.

amount for any year is the present value of that year's projected receipts at the time the investment is made. Kahn's method stops with this allocation of cost; it does not take account of changes in present value of future revenues as time passes.²⁷⁵

Kahn's measurement of cost recovery over the life of the asset precisely reverses the economic method advocated by Chirelstein. The point of real difference between Chirelstein's and Kahn's approaches turns on the issue of whether to incorporate within the cost recovery system an effective inclusion of the increase in present value of future years' income. Analysis and resolution of this issue in the context of human capital are affected by the general approach to human capital taxation. In turn, resolution of this issue has substantial implications for determining a proper method of cost recovery for human capital investment.

In determining depreciation deductions, Chirelstein and other proponents of the economic method effectively take account of the accretion to the present values of the remaining years' projected receipts as an offset against the "loss" of the investment capital "used up" in generating the current year's receipts.²⁷⁶ That is, as each year passes, the investor is closer in time to receipt of the income that was projected for the remaining years. Consequently, while the capital investment made to produce the preceding year's receipts has been consumed, there is also an increase in the value of the future years' income to be generated. Kahn's method differs because it excludes this accretion of future value from income.

This difference can be easily seen by examining the outcome of each method at the end of Year 1 in the above example. Chirelstein's approach is to compare the present value of the aggregate investment at that point (\$3427) with the present value at the beginning of Year 1 (\$4000), and to treat the difference of \$573, the loss in present value, as the proper amount of depreciation for the year. The flip side of that analysis, of course, is that of the

275. Cf. GOODE, *supra* note 71, at 92 (stating that depreciation allowances are intended to cover the cost of capital goods which are normally measured on historical basis).

276. Professor Blum refers to the accretion to present values as "imputed interest" on the asset. Blum, *supra* note 263, at 1181-82. Johnson refers to the "interest-like income" that Kahn's depreciation schedules "do not identify." Johnson, *supra* note 187, at 1046 n.90. I would put it a bit differently: Kahn's schedules do not effectuate the accrual of such interest-like income. See *infra* text accompanying notes 282-88. See also Samuelson, *supra* note 264, at 605-06 (asserting that the deduction for depreciation that will reflect the true loss of economic values, resulting in economic decisionmaking independent of taxes, will effect "an inclusion of so-called capital appreciation").

\$1200 received in cash during the year, \$627 is included in income.²⁷⁷

The result produced by Chirelstein's approach is the same as that achieved by using what we typically think of as a full-accretion method of determining income. A full accretion method would determine the income for Year 1 in the following manner. First, there would be zero net income when the asset is acquired. Acquisition of the present values of the future cash payments from the asset (\$1045 for Year 1, \$905 for Year 2, \$790 for Year 3, \$687 for Year 4, and \$573 for Year 5, totalling \$4000) would be offset by the decreased savings of the \$4000 cash used to make the acquisition. Then, at the end of Year 1, the full accretion method would produce the following net income:²⁷⁸

\$1200 cash payment in Year 1	
(less \$1045 previously accreted)	= \$155
\$1045 end-of-year 1 present value of Year 2 cash payment	
(less \$905 previously accreted)	= 140
\$905 end-of-year 1 present value of Year 3 cash payment	
(less \$790 previously accreted)	= 115
\$790 end-of-year 1 present value of Year 4 cash payment	
(less \$687 previously accreted)	= 103
\$687 end-of-year 1 present value of Year 5 cash payment	
(less \$573 previously accreted)	= <u>114</u>
 Total Year 1 Income	 \$627

It is evident that of the \$627 included in income under this sinking fund approach, all but the \$155 of the Year 1 cash payment that exceeded the present value of that payment at the time of investment²⁷⁹ represents accretion of present value of future payments for Years 2 through 5 (a total of \$472). Chirelstein would include this \$472 accretion in Year 1 income. Kahn would not. Kahn would include in income only the \$155 of Year 1 "gain" over the portion of the original cost that he allocated to that year's receipts.²⁸⁰

277. \$1200 less the \$573 of capital cost recovery yields \$627.

278. Again, figures are rounded to simplify the illustration.

279. The \$1200 cash payment less \$1045 yields \$155.

280. Similarly, in Year 2 Chirelstein's sinking fund method produces net income of \$513, broken down as follows:

Focusing for the moment on a full accretion system as the ideal, the capitalization and recovery over time of a taxpayer's expenditures for *wasting* assets, whether physical (buildings and machines) or human (education), may be seen as a surrogate for reflecting the actual *decline in value* of those wasting assets in determining the net income produced by and through such assets.²⁸¹ This is precisely the outcome Chirelstein's method seeks;

\$1200 cash payment in Year 2	
(less \$1045 of present value accreted at end of Year 1)	= \$155
\$1045 end-of-year 2 present value of Year 3 payment	
(less \$905 accreted at end of Year 1)	= 140
\$905 end-of-year 2 present value of Year 4 payment	
(less \$790 accreted at end of Year 1)	= 115
\$790 end-of-year 2 present value of Year 5 payment	
(less \$687 accreted at end of Year 1)	= <u>103</u>
 Total Year 2 Income	 = \$513

Kahn would include only \$295 in net income for Year 2, reflecting the difference between the cash payment of \$1200 and the present value of the Year 2 receipts *at the time of the investment* (\$905). The difference is that Chirelstein's \$513 of Year 2 income includes the accretion in present values of future expected receipts in Years 3-5 (\$358). Subtracting from that \$358 the accretion of \$140 for Year 2 receipts that Chirelstein, but not Kahn, already included through accretion at the end of Year 1, Chirelstein's approach produces a net increase of \$218.

281. See, e.g., Steines, *supra* note 262, at 490; cf. Jeremy I. Bulow & Lawrence H. Summers, *The Taxation of Risky Assets*, 92 J. POL. ECON. 20, 28-29 (1984) (treating "ex post economic depreciation," which would allow deductions equal to the true reduction in value of an asset, as the ideal in measuring income, but arguing that the present system of "ex ante depreciation" (as a surrogate that determines a fixed schedule of depreciation in advance) overstates income by failing to compensate investors adequately for capital risk). Whether or not it is even appropriate to think of depreciation as a surrogate for measuring the decline in value of an asset may be debated; on the income side, we surely do not view the realization requirement as a surrogate for measuring the increase in income on some annual basis. Cf. GOODE, *supra* note 71, at 92. Economic depreciation as advocated by Chirelstein, Steines, and others would directly implicate the income side by effectively accreting an annual increase in value of the asset, notwithstanding the realization requirement. Measuring capital cost recovery deductions as if there were a full accretion model operating on the income side as well may introduce inconsistencies among different components of net income produced with the involvement of greater and lesser degrees of capital cost. Under this approach, an increase in value of a depreciable asset (i.e., the increased present value of future earnings) would be included in income currently to a degree determined by the extent of depreciable investment. However, the gain in non-depreciable property, or in property whose increase in value is less related to earnings that were projected and included in the purchase price, will not be so included, because there is no all-encompassing full-accretion system. With depreciable investments that are reliably expected to produce a projected return, the accretion in present value may properly be taken into account in order to determine more accurately the net income as opposed to return-of-capital portion of a revenue flow. The same may not be true with respect to human capital and other investments whose projected return may be more speculative in

it would determine annual depreciation or cost recovery by computing the net decline in present value of the aggregate expected receipts from the asset. But in doing so, it necessarily assumes that it is appropriate to take account of the increase in present value of estimated or anticipated future revenues as the time for their receipt draws nearer.

This approach on the deduction or expense side of the analysis may, as Kahn observes,²⁸² conflict with the realization requirement on the income side. That is, sinking fund depreciation may be seen as achieving inclusion of an unrealized increase in income through the mechanics of a deduction, notwithstanding the realization requirement's general bar against including unrealized gains. More importantly for the analysis here, if applied to human capital generated through education costs, Chirelstein's method would contradict the working assumption in this section that accumulations of human capital should not be included in income until they are manifested as market earnings.

Suppose, for example, that a student pays \$4000 for education that she expects will produce incremental future earnings of \$1200 per year for five years and that those future earnings have a present value of \$4000. Assume also that there is no tuition subsidy and there are no forgone earnings. The sinking fund method, applied here, takes account of the annual increase in present value of the expected income from future years, thereby producing greater net income in the earlier years. This would be like taxing a baseball player each year on the increase in present value of all future years' incomes. Doing so only through the vehicle of the cost recovery method applied to purchased education makes the treatment of earned income generated with purchased human capital inconsistent with personal service income produced through self-developed human capital or otherwise. Kahn's accelerated method, on the other hand, would match our general approach to earned income from human capital.

Professor Calvin Johnson suggests that Kahn's approach would unduly and unnecessarily exalt a realization requirement based in administrative convenience:²⁸³

any individual case. See *infra* text accompanying notes 290-327.

282. See Kahn, *Reply*, *supra* note 263, at 1197.

283. The reasons for not accruing all economic gain, whether currently accomplished by the realization requirement or other rules affecting the timing of income, are often more complex than mere administrative concerns. See White, *supra* note 159, at 2044. Certainly

[O]ne need not stretch the realization convention to reach such an inappropriate result. Unrealized appreciation is a rule of administrative convenience, not a sacred icon that must be carved out of any transaction and preserved. One could disaggregate many receipts into a tax-recognized loss and an untaxed gain, if one worked hard enough, but why do it? Unrealized appreciation is at best a shield to prevent tax on gains above costs, not a sword to justify over-deducting unexpired costs.²⁸⁴

I do not believe we can so divorce the cost recovery issue from the issue of income inclusion, whether or not the latter is caught up in controversy over the realization requirement. The fact is that sinking fund depreciation results in deductions that effectively cause net income to reflect the increase in present value of future projected earnings. We do not directly tax such increase in certain contexts, such as when future earnings from unpurchased human capital draw nearer in time. Thus, at least where we are dealing with earned income from human capital, which is so inextricably bound up with the very deductions we are considering here, we need to determine whether a depreciation system that takes account of increases in the value of future receipts over time is either required or sensible.

Compare a baseball player who is earning income using native and developed abilities that are "non-purchased"²⁸⁵ with a doctor earning income from the practice of medicine requiring substantial and expensive education for which large out-of-pocket costs were incurred. Presumably, the baseball player's earnings are taxed only as they are received even though each year the present value of the income expected later in his career will grow more valuable. In the doctor's case, however, use of sinking fund depreciation would result in the very acceleration of future earnings resisted with the athlete. Specifically, in determining the doctor's net income, gross revenues would be reduced by depreciation deductions to recover out-of-pocket costs, but an accrual of the increase in present value

when one reaches the problems presented by inchoate human capital, the issues of when and to what extent such capital should be included in the tax base are at the same time both fundamental and complicated. See *supra* text accompanying notes 141-84.

284. Johnson, *supra* note 187, at 1046 n.90.

285. Let us assume, for the moment, that the athlete has no training and development costs that perhaps should be recovered against his income.

of future earnings expected from her education investment would be built into those deductions.

The question of whether to take account of this increase in the present value of future earnings in the case of the doctor cannot be satisfactorily answered simply by concluding that the realization requirement (limited to its traditional scope) does not prohibit doing so. Instead, far more fundamental issues must be resolved, or at least addressed in these particular circumstances.

First, do we want to distinguish between the treatment of earned income from purchased human capital, as obtained in the case of the doctor, and the treatment of earned income generated from a wide variety of other types of human capital, including *unpurchased* education?²⁸⁶ Discrimination against earned income generated with purchased human capital would result from the use of economic depreciation with respect to such investment,²⁸⁷ unless there were a radical change in the treatment of earned income generally in order to take account of the increase in value of human capital as future projected earnings draw closer.²⁸⁸ In this section, I am assuming that as a general matter we would continue to tax human capital only when market earnings are generated, so that no such radical change would be warranted.

Even if there were such a radical change, it might well extend to all earned income. In that case, there would be no reason for a

286. Sources of unpurchased education include parents, public-supported schools, and on-the-job training. On-the-job training might not generally be viewed as *unpurchased*; one might say that the employer is, in effect, compensating the employee with additional salary which the employee is then constructively paying back to the employer (and constructively deducting) for the training. See generally George Mundstock, *Taxation of Business Intangible Capital*, 135 U. PA. L. REV. 1179, 1201 (1987). For present purposes we might call such human capital unpurchased, however, since this effective expensing of the cost results in the taxpayer-employee being treated the same *taxwise* as if he were simply given the human capital and not required to include anything in income. The same analysis may be applied to human capital obtained through subsidized tuition or a scholarship; the exclusion equates with expensing. See *supra* text accompanying notes 12, 84-86 and *infra* text accompanying notes 356-81.

287. Of course, there is discrimination under existing law because of the failure to allow any cost recovery with respect to purchased human capital obtained through education expenditures prior to entry into a trade or business. See *supra* text accompanying notes 192-99.

288. We might respond to the general failure to tax unpurchased human capital accumulations by instituting a deferral charge. See text *supra* accompanying notes 202-12 and *infra* accompanying notes 334-39 concerning the use of a progressive rate structure or a specific deferral charge to reach all accumulations, by contrast to a system of economic depreciation that selectively reaches only the increase in present value of future earnings arising from purchased human capital with the passage of time.

special and duplicative inclusion for purchased human capital alone, as would occur if the cost of purchased human capital were subject to economic depreciation. Therefore, it seems sensible in any event to avoid discrimination against earned income derived from purchased human capital unless there is a persuasive reason to take account of the increase in value of the future revenues expected from *all* types of purchased investment, including tangible property, financial instruments, *and* human capital.

This inquiry leads to a second, more fundamental question. Are there bases for determining, as a normative matter, whether particular "wasting" investments should be subject either to economic depreciation in an effort to reflect (albeit imperfectly) the rate of decline of the investment's economic value or to a cost allocation approach that would simply reflect the loss of original investment attributable to a particular year's revenues without taking account of the rising value of future years' receipts? I believe there are such bases.²⁸⁹

ii. The Importance of Expectations in Constructing a Cost Recovery Method — Implications for Human Capital and Other Investments

The use of economic depreciation will result in the better estimate of net income annually generated with a wasting investment where expectations as to projected future revenues (1) are relatively reliable and (2) are supported by an efficient market that would allow the remaining capital to be resold at a price reflecting the increase in present value of projected future earnings.²⁹⁰ In those circumstances, we will see that use of a cost allocation method of depreciation may characterize "too much" of the revenues generated as "return of capital," thus understating net income for tax purposes. This would lead to inefficiencies in investment in physical and financial assets because the tax law would cause investors choosing

289. Portions of the following discussion were first set out in Davenport, *supra* note 10, informing readers of the more thorough and broad-ranging discussion that would be forthcoming in this article.

290. Of course, economic depreciation, while taking into account the increase in present value of the originally projected receipts, would ignore post-investment fluctuations in the market value of the asset (and of the projected future revenues that underlie the asset value) as well as the impact of inflation. In our realization-based income tax, as opposed to a pure Haig-Simons system, we would not reflect the *actual* decline in value of the asset, but simply the projected decline based on expectations at the time of the investment.

among competing investments to opt for the investment offering a greater after-tax return attributable to accelerated depreciation deductions.²⁹¹ Thus, investment in financial instruments like annuity contracts and in tangible property such as machines should properly be subject to economic depreciation.

By contrast, in the case of human capital investment, expectations as to future earnings in any individualized case are far more speculative, and there is no market in which human capital can be resold by the individual at a price that will anticipate the approach of future earnings. As a result, there is less basis for taxing an individual on an assumed increase in value as future projected earnings draw nearer. Moreover, earned income derived from other human capital does not similarly reflect such increase in present value. Thus, for human capital and perhaps certain other unique risky assets, an accelerated cost allocation method makes sense.

These points can be developed by considering the treatment of raw land, a classic "non-wasting" and traditionally non-depreciable asset, and the insights that follow from such examination. Professor Kahn's cost allocation approach could be applied to undeveloped land generating rental income. If it were, an investment in land would become depreciable, and depreciation would occur pursuant to an accelerated method to boot.²⁹² Such a result does not seem sensible or desirable for reasons that will have further relevance when we turn to an evaluation of traditionally depreciable, "wasting" assets.

Consider Blackacre, a parcel of land purchased for \$8,000 and expected to produce rent of \$1,200 each year. Discounting the future rents, again at 15%, it is equally true with the land as with

291. For detailed discussion of the problem of an inefficient allocation of investment, see the various articles authored by Johnson cited *supra* notes 262-63. Proponents of economic depreciation are rightly concerned with preventing a market in which investments may be "disaggregated" so that investors may obtain current deductions, on the one hand, while taking advantage of deferred taxation of unrealized gain on the other. See, e.g., Johnson, *supra* note 187, at 1049; Warren, *supra* note 78, at 557-63. This problem may be seen as especially aggravated when interest deductibility is factored in. See *infra* text accompanying notes 349-55. However, human capital investments are unique to the individual and do not present the same potential for abuse through the marketing of tax attributes to investors. Moreover, depreciation deductions for education costs can and should be limited so that they may only reduce income produced in a career that uses the education, not to shelter unrelated income. See *infra* text accompanying notes 315-16.

292. See Schler, *supra* note 263, at 1430; George Mundstock, *Eleventh Circuit Affirms Accelerated Depreciation of Land?*, 47 TAX NOTES 737 (May 7, 1990); see also Johnson, *supra* note 262, at 1525.

a machine or an annuity contract that a rational taxpayer would pay more for the first year's projected receipts (their present value of \$1,045) than for the second year's revenues (\$905), more for the second (\$905) than for the third (\$790), and so forth. As each year goes by, the cost allocated to the prior year's revenues has effectively been used up. If we were simply to allocate the taxpayer's purchase price so as to match portions of that cost with the projected revenues for each year into the future, then as each year goes by it would seem that the taxpayer should recover those allocable costs (on a declining schedule) against the rental receipts. The result would be accelerated depreciation, just as would occur under Kahn's thesis with a machine or an annuity contract.

Perhaps some would support that treatment for non-wasting assets such as land, as well as for wasting assets. Certainly such treatment does not square with what our eyes tell us, however. It also does not reflect our economic expectations. We can see that the land is still there, intact, and it is still capable of producing the same projected revenues forever.²⁹³ Both our eyes and our economic assessment tell us that there is no reduction of capital as the land generates rental receipts, and therefore no reason for treating those receipts as partly a return of capital rather than all income. If we were to apply Kahn's cost recovery approach to undeveloped land, we would achieve a result that ignores our solid expectations that the rental receipts fully represent gain.²⁹⁴

Assuming there is general agreement that non-wasting assets such as land should remain non-depreciable, one might contend that such treatment does not resolve the question of how to depreciate wasting assets, i.e., those assets that will generate revenues only for a limited period of time. Professor Deborah Geier, for example, states that she "would certainly part ways" with Professor Kahn's accelerated depreciation approach if the asset to be subjected to that approach were not a wasting one.²⁹⁵ She states that "a

293. Thus, if land is purchased for \$8,000 now, a year from now (apart from inflation and market fluctuations) someone would pay that same \$8,000 for the same parcel of land. At each point in time, the land has the same \$8,000 value because it can generate the same level of receipts to infinity. The increase during the year in the present value of future years' revenues exactly offsets the exhaustion of the present value at the outset of the first year's receipts.

294. Mundstock, *supra* note 286, at 1226-27.

295. Geier, *supra* note 263, at 460. Professor Kahn has made it clear that he, also, would not apply his cost allocation approach to non-wasting assets. See Kahn, *Further Kahn-tribution*, *supra* note 263, at 1689-90.

presumption that the income-producing potential of the asset remains undiminished over time is . . . a reasonable one for the tax law to adopt."²⁹⁶ However, Geier asserts, if the asset has an ascertainable useful life and periodic cost recovery is considered to be normative, "then the proper allocation of that cost over that period must be addressed;"²⁹⁷ she suggests that for that category of assets Kahn's accelerated depreciation might be accepted as a normative solution.²⁹⁸

I do not find the non-wasting versus wasting characterization to provide a satisfying basis for distinction. Whether considering a non-wasting asset or a wasting asset, the taxpayer is looking to future revenues or gain reflecting the ability to produce future revenues. Kahn's cost allocation approach can be readily applied to either type of asset. If we reject accelerated depreciation — indeed, any depreciation — in the case of the non-wasting asset, it simply means that we are accepting the implicit inclusion in income of the increase in present value of future revenues, which increase precisely offsets the portion of the cost (allocated under Kahn's approach) that was used up during the same period. The effect is the same as would result from economic depreciation in the case of the wasting asset. The result for the wasting asset simply looks a little different because the increase in present value of future revenues does not fully offset the allocated cost since the revenues will not go on forever, and hence there is some "net" depreciation. There is nothing inherent in the wasting/non-wasting distinction that warrants the implicit inclusion of this increase in present value in one case but not the other. The question of cost recovery or allocation cannot be so readily separated from the determination of whether an asset has a limited life.²⁹⁹

While Professor Geier was willing to accept the inclusion of

296. Geier, *supra* note 263, at 460.

297. *Id.*

298. *Id.* I note that Professor Geier emphasizes that she is "not convinced . . . that either [accelerated or economic depreciation] is clearly wrong or clearly right." Geier, *supra* note 263, at 463. She asserts that the question of what approach is "normative" is "debatable and not as clear-cut as either Professors Kahn or Johnson imply." *Id.* at 460. I agree. I also note that Professor Kahn does not assert that his accelerated depreciation method is required as a matter of sound tax policy, but simply that it is one approach that may be defended in terms of "normative" or "neutral" tax principles.

299. If the question of whether to take account of the increase in present value of future revenues depended solely on the wasting versus non-wasting distinction, the non-wasting asset would be non-depreciable while an asset with a 100-year useful life might receive accelerated depreciation, a curious if not senseless result.

the increase in present value of future revenues in the non-wasting case because of the "presumption" that the income-producing potential would continue undiminished, the critical element in that presumption would seem to be the relatively certain expectation of projected revenues for *any* period. In the case of the asset perceived to be non-wasting, that period happens to be *forever*. If there are comparable expectations about future revenues generated for a limited period, i.e., from a wasting asset, there is no apparent reason that their present value should not also be included, as would result with economic depreciation. Indeed, it might make even more sense in the case of the wasting asset because our expectations may be more reliable when projecting forward for a shorter period than forever.³⁰⁰

For example, the purchase of a financial instrument like an annuity contract, which provides a return in the nature of interest, would fall into this category. The legal obligation of the insurance company or other obligor provides the underpinning for our expectation that the annual projected revenues will be obtained. Moreover, interest income is a kind of investment income that we have generally determined should be accrued when there is a right to it, as in our treatment of original issue discount.³⁰¹ To do otherwise would introduce disparities in treatment as between similar types of investment that would result in distortions and inequity (and potential abuse).

It would thus be appropriate to treat receipts from an annuity contract like payments on a home mortgage loan,³⁰² i.e., allocated

300. I suppose one might exalt the case of land as being extremely reliable for projecting income-generating ability (putting aside inflation and market forces), but I am not persuaded that there is a material difference that supports drawing a line between non-wasting and wasting assets in terms of willingness to take into account the increase in present value of future revenues. Moreover, expectations would seem to be still more reliable in the case of a fixed-obligation wasting asset, such as an annuity contract.

301. IRC §§ 1271-1275. Consider also the treatment of term and remainder interests where there is a reliable expectation of an increase in value of the remainder interest with the passage of time and where there could be an abusive result if costs could be recovered with respect to the term interest while the appreciation in the remainder interest was ignored. See IRC §§ 167(e), 273; see generally Jeffrey L. Kwall, *The Income Tax Consequences of Sales of Present Interests and Future Interests: Distinguishing Time from Space*, 49 OHIO ST. L.J. 1, 18-19, 29 (1988).

302. See, e.g., CHIRELSTEIN, *supra* note 2, at 144; Blum, *supra* note 263, at 1183 ("If an interest factor can be isolated and quantified, then sinking-fund depreciation is theoretically proper because it takes that imputable interest into account."). For a contrary view, see Kahn, *Accelerated Depreciation*, *supra* note 263, at 21-26; Kahn, *Reply*, *supra* note 263, at 1187-94.

between income and return of capital in accordance with the method we would describe as economic depreciation. (Of course, present law does not generally do that with annuities, opting instead for, in effect, a single "straight-line" type recovery.)³⁰³ The invested capital generates more income at the outset when capital is greatest; as the revenue stream grows shorter, the capital declines and produces less income and, therefore, each payment contains a greater return of capital. The investment in any wasting asset can be so analyzed, but the further step important here is reaching the judgment that all of the income we might *identify* based on our projections *should* also be included in income currently.

With an asset more classically thought of as depreciable, such as a machine, economic depreciation may also be appropriate in those cases where the market efficiently values capital based on projected revenues for a period of years.³⁰⁴ We might choose to vary this approach with highly risky assets where our expectations are much more speculative.³⁰⁵ Where, however, it is reasonably expected that a particular asset will generate the projected receipts over its life, then the income generated by the invested capital will not be accurately estimated, and the result produced will be distorting, if we fail to include in current income the increase in present

303. See IRC § 72.

304. See generally Brown & Bulow, *The Definition of Taxable Business Income*, in COMPREHENSIVE INCOME TAXATION 244-48 (Pechman ed. 1977); Joshua D. Rosenberg, *Tax Avoidance and Income Measurement*, 87 MICH. L. REV. 365, 372 n.20, 380 (1988).

305. If we think of more predictable and marketable investments at one end of a spectrum and human capital at the other, these "risky assets" would be in an "in-between" category. There is no easy conclusion about the appropriate method of depreciation. Even if expectations are less solid, one might still prefer economic depreciation because of the potential issues of distortion and inequity that may arise relative to other investments. With a cost allocation approach of the type described by Kahn, steps would have to be taken to try to prevent the proliferation of techniques and investments to take advantage of the implicit deferral. See Johnson, *supra* note 262.

On the other hand, one might argue that deferring income inclusion until realization is appropriate in the case of highly risky assets, and that such deferral should be factored into the potential return on those assets. Consider Bulow & Summers, *supra* note 281, at 28-29 (suggesting that "ex ante depreciation" schedules tend to understate depreciation and overstate income in the case of risky investments, including "[l]onger-lived assets . . . likely to be subject to greater asset price fluctuations," because of failure to compensate adequately for capital risk).

One might distinguish those investments that may be bought and resold in an efficient market, where one may be expected to be able at any time to recover capital reflecting the present value of future expected revenues consistently estimated, from those investments lacking such a market (and thus also presenting less comparability in terms of treatment of investment return). See *infra* notes 325, 327 and text accompanying notes 324-27.

value of such future receipts. In such a case, I find economic depreciation to be normatively sound and preferred. I reach this conclusion not because economic depreciation is mandated in all cases by an absolute conceptual norm, but because it should produce a more neutral tax law as between different types of investments, by characterizing as current income the same portion of revenues that we expect would represent income on the invested capital.

Professor Kahn correctly observes that because of the realization requirement, mere appreciation in market value of an asset is generally not taxed. He would view the increase in present value of future receipts as an unrealized gain that similarly may be left untaxed until a realization event. However, more than the realization requirement is at issue when addressing traditional depreciable assets because the taxpayer has more than just market appreciation. The taxpayer has cash or other receipts, themselves describable as a realized item, that demand characterization. Some portion of the receipts is expected to represent gain, and some portion may inevitably represent return of capital. We need a rational system for determining those proportions.³⁰⁶

In the case of undeveloped land, we reasonably concluded that none of the capital is being diminished on a current basis and thus all receipts should be treated as income. Because our expectations are that future rents will be obtainable forever, the taxpayer's investment is assumed to be fully maintained through, in effect, the accrual of the increase in value of the future years' projected receipts. However, with a wasting asset that produces receipts for only a limited period, it is reasonable to conclude that not all of the receipts³⁰⁷ represent an accession to wealth because we know that a cost of capital has been incurred that at some point must be reflected in determining the true net gain from use of the asset.

In the absence of a pure Haig-Simons annual accounting for the increase or decrease in savings, including all capital assets, we have several choices. We could use a *Burnet v. Logan*-type³⁰⁸ approach; none of the receipts would be treated as income until capi-

306. Compare the treatment of a traditionally non-depreciable asset such as corporate stock, where the investment does not reflect general expectations of current receipts for a limited period of time. See *infra* note 325.

307. More accurately, I should refer to the net receipts (before considering depreciation) because there will normally be out-of-pocket operating costs that must be netted against gross receipts along the way in determining income.

308. 283 U.S. 404 (1931).

tal has been fully recovered and we are thus able to know with absolute certainty that any further receipts must constitute an accession to wealth. That approach seems generally unacceptable because a taxpayer expects that net income is going to occur over a period and so would not pay all of the cost of the asset just to obtain the earliest years' receipts. Recalling the earlier Chirelstein/Kahn example, if a taxpayer who paid \$4000 for a "5-year asset" expects \$1200 of receipts in Year 1, she would not pay more than \$1045 for that expectation, and she would expect at least \$155 of income if the receipts materialize.³⁰⁹ *Burnet v. Logan*, which would treat all \$1200 of receipts as return of capital, simply does not reflect reasonable expectations.

A depreciation system seeks more accurately to estimate the true gain produced on a current basis. So viewed, once we reject a *Burnet v. Logan* approach, depreciation is a technique not for reflecting unrealized losses but for avoiding an inappropriate overestimate of income that would occur if we treated receipts as equivalent to income. A particular depreciation method provides a convention for providing this more accurate estimate of income. That estimate should be determined within the prevailing income tax structure, however. Since that structure does not replicate a pure Haig-Simons system, the notion that economic depreciation should be *mandated* — because it automatically includes in this estimate of income an economic but unrealized gain attributable to the approach of projected future revenues — loses force. Rather, we are free to consider whether economic depreciation would present the risk of "prematurely" taxing an item that, for other reasons, we would prefer to defer until it materializes more surely.

Human capital, in contrast to more conventional depreciable investment, presents such a case where deferral is appropriate. With human capital, and perhaps with some other risky assets,³¹⁰ we may justifiably be uncomfortable relying, in an individual case, upon generalized expectations that are far less sure and that may

309. At the other extreme, we could treat "pre-retirement" receipts as "all income" the way we treat dividends on corporate stock or interest on a bond. This approach seems unacceptable also, because we presume from our expectations that the asset is wasting, in that the receipts will continue only for a limited period and there will then be no capital then left to recover. As a result, our clear expectation is that some of the capital, and the income-producing capacity, is being used up as receipts are generated. It would be inconsistent with this approach to treat receipts as equivalent to income or gain and, unrealistically, to allow a "recovery" of capital cost only at the end.

310. See *supra* note 305 and *infra* text accompanying notes 317-27.

not generally be anticipated through a market transaction. Moreover, with human capital, we normally describe the income to be generated from such capital as *earned income*. Employing economic depreciation with respect to purchased human capital may thus be seen as achieving a form of advance accrual of future earned income, a result at odds with the general treatment of human capital and the earned income produced with such capital. In this context, a cost allocation approach, which avoids such an accrual, may best avoid inequity and distortion.

On the one hand, purchased human capital is an asset we know is wasting, in the sense that it will inevitably be exhausted over a person's career or careers. At the end of a given year, the capability to produce income for that year is gone and will not be replenished. Thus, however one may prefer to analyze non-wasting assets like land or corporate stock, human capital as a wasting asset is ripe for Professor Kahn's accelerated depreciation analysis in terms of the allocation of costs among future years' revenues.³¹¹ (I am, of course, assuming here that we could agree that at least some types of purchased human capital should be subject to depreciation in the first place.)³¹²

On the other hand, for a number of reasons, the level of certainty as to the future receipt of earnings in the case of any one individual will generally be far less than in the case of a fixed-income asset or even a riskier wasting asset such as a machine. Whether an individual lawyer, athlete, scientist, or other worker will generate earned income commensurate with some sort of statistical prediction will depend on the interaction of many different human capital factors, including education, innate intelligence and ability, personality, work ethic, family pedigree, economic conditions, luck, and so forth. Thus, the ability to generate with purchased human capital a projected level of earnings in any one case will be extremely variable.³¹³ In addition, an individual may

311. Professor Dodge has suggested that the earnings generated by human capital may be no more speculative than the dividend stream from corporate stock, and that there is no reason to introduce an accelerated depreciation system only for human capital. Dodge, *supra* note 263, at 1569. The comparison with corporate stock ignores, among other things, the fact that human capital generally involves an inevitable loss of potential earnings as time passes because the investment reflects only a finite period of potential receipts. As a general matter, corporate stock involves speculation as to both the amount and the timing of future receipts, and this wholesale absence of expectations presents a different case for non-depreciability. See *infra* note 325.

312. See *supra* text accompanying notes 16-71.

313. In a sense, we might view purchased human capital, e.g., a law degree, as gen-

choose not to maximize her earnings potential, as in the case of the lawyer who forsakes a lucrative Wall Street practice for public interest law.³¹⁴

Given our less certain expectations, we may conclude that depreciation of purchased human capital should not take into account an increase in value of future years' receipts in the same way economic depreciation of non-human physical or financial capital (or non-depreciability of non-wasting assets) accounts for such increases. We may be even more inclined to reach this judgment in light of the current system's failure (wise or not) to include in income the increase in value of future receipts to be earned from many types of *unpurchased* human capital. In considering purchased education or other human capital, the relevant playing field would seem to encompass various types of human capital investment or accumulation that generate earned income, not alternative investments in financial or physical capital for which economic depreciation is more suitable.³¹⁵

erating an expected return while other human capital elements add to or reduce that return. That would suggest, however, that we might both (1) use economic depreciation for the cost of legal education, and thus include in income the increase in present value of an expected return from the education, and (2) take into account an additional gain or an offsetting loss, where appropriate, on account of other shifts in human capital. The latter proposition would, of course, represent a radical shift from our general approach to human capital, which is not to reflect accumulations or diminutions in income until there is receipt of earnings in the marketplace. See *supra* text accompanying notes 148-53.

It might be argued that the other human capital elements could be viewed as analogous to market fluctuations, which we typically ignore, and that the cost of the legal education is more like a traditional asset for which economic depreciation is appropriate. I would resist such an effort to isolate some abstract and increasing value of future earnings from the education where such earnings are so individualized, speculative, and dependent on the interwoven "other factors," and where such earnings also are not generally capable of being anticipated in a market transaction like the sale of a more traditional capital asset.

314. See *supra* note 313. Again, we might view the individual's career choice as reflecting a separate human capital element and separately allow (or not) a current loss for the expression of a choice that reduces expected earnings. But again, that would be a radical shift in our approach to human capital and earned income generally.

In response to the argument that we should tax accumulations of human capital that give rise to income-earning *potential* regardless of personal choice, several commentators have noted the inconsistency of such a focus on general expectations (rather than outcomes) with the personal liberty to make one's own choices as to career and earnings path. See *supra* note 107.

315. I suppose one might consider investment in financial or physical assets that produce current income directly (or through economic depreciation) as an alternative to spending one's money for professional or graduate education, and thus one might view accelerated depreciation for human capital as a preference that may distort investment decisions. I cannot work up great concern over this, however. Presumably we want to

However, we could — and we should — appropriately limit use of accelerated depreciation deductions for human capital by providing that they may only reduce reasonably-related earned income. This would counter any fear of encouraging human capital investment as a means of sheltering other income while tax-deferred human capital is accumulated.

The case for using a different depreciation method for human capital than for many investment assets can be tested by comparing our responses to two hypotheticals, outside the depreciation context, that starkly present the question of whether to include in income the increase in present value of future revenues:

(A) Consider a taxpayer who pays \$790 for the right to obtain a \$1200 receipt expected in the third year after the current one. Should that taxpayer have income next year when the right to receive the \$1200 becomes worth \$905, but nothing has been received? Professor Johnson criticizes Professor Kahn for basing his accelerated depreciation approach on such an extreme benchmark which analogizes all investment to the purchase of future receipts for *separate* years. Johnson says that if substantial investments were made in this way and involved a threat to the tax base, “we would probably have to do something about them.”³¹⁶ I agree that under these circumstances we might appropriately impute income. This is essentially the situation we have with original issue discount; there is a fixed claim for the future receipt, and we have

encourage individuals to be productively employing their skills and talents; thus the more serious concern is that a system that discourages human capital investment relative to other personal service activities that do not require such investment or that use tax-favored on-the-job training (*see supra* note 286) will discourage acquisition of higher and broader education that may lead to a more productive and flexible workforce. Furthermore, we may already be compensating for any deferral benefit at work in human capital investment generally, through the progressive rate structure (or we may explore implementation of a general deferral charge to address that issue). We do not need a selective device to prevent deferral only as to certain human capital accumulations, such as the application of economic depreciation to purchased human capital. *See supra* text accompanying notes 287-88.

One basis for Professor Johnson's criticism of Professor Kahn's description of accelerated depreciation as normative is that Kahn's analysis used an inappropriate benchmark — investment in separate years' receipts where costs are easily allocated in declining fashion. *See Johnson, supra* note 262, at 1527. When one considers the proper depreciation of human capital, I believe a model which is based on financial or physical investments also provides an inappropriate benchmark, ignoring the more important question of the relative treatment of earned income generated from different types of human capital accumulations. *See infra* text accompanying notes 321-22.

316. Johnson, *supra* note 262, at 1527.

legislated an accrual of the economic income.

(B) Now suppose that a professional athlete pays \$790 for a program of weight training that he expects (hopes) will produce an extra \$1200 of earnings in the third succeeding year, the last of his career. Would we want to accrue the increase in value of that projected \$1200 a year from now? I think not, in light of our general treatment of earned income and the speculative aspect of the increasing value of the human capital as the potential "payoff" is approached. And if not, then why impute such gain through the device of economic depreciation to the purchaser of human capital that will produce increased earnings over several years rather than simply in one future year.³¹⁷

In short, it may be appropriate to treat an investment in human capital essentially as a purchase of a series of future receipts rather than as a single investment that reliably declines in accordance with an economic depreciation schedule.³¹⁸

My suggestion that purchased human capital be recoverable on the accelerated cost allocation method is based on a concern about including in income the increase in present value of what are merely projected future revenues that may be highly speculative in individual cases. One might object that in order to construct such an accelerated depreciation schedule in the first place, I would have to rely upon those very same future revenue projections. That point is a useful one for understanding the fundamental problem. We are trying to determine a reasonable estimate of the gain generated from an investment, in this case human capital. If we are to avoid a *Burnet v. Logan* approach that simply says we cannot determine gain until we see whether the investment — for example, in education leading to a medical degree — has turned out to be economically useful by generating revenues in excess of its total

317. The same questions should be asked with respect to risky non-human capital investments for which the projected future revenues are less certain. Is it appropriate to determine and currently include in income an interest-like return on the investment? Is that "gain" of a different quality than appreciation due to market forces we may defer? On the other hand, if we do not impute this income through economic depreciation, are we opening too great a potential for inefficiency and abuse?

318. Yishai Beer, examining the debates concerning recovery of education costs and methods of cost recovery discussed in Davenport, *supra* note 4, and Davenport, *supra* note 10, has reached conclusions that may have a similar impact; his interesting analysis treats the purchase of education as the acquisition of a series of yearly options giving the student the right to "put" her future services. See Yishai Beer, *Toward Extension of the Option Tax Legislation: From Option "In-Personam" to Option "In-Rem"*, unpublished manuscript expected to be published in final form in *Tax Notes*.

cost, we *must* in some fashion spread costs over future periods in which earnings are projected (unless we are to totally ignore the costs of producing those earnings by disallowing any recovery, as current law erroneously does, or deferring any loss until the end of a career or life).

While one might choose to adopt a *Burnet v. Logan* approach, I would prefer to allocate costs. As noted above, if a taxpayer pays a given amount for an asset expected to produce revenue over a period of years, it is not rational to think that the entire cost was paid to obtain the receipts for the earliest year or years. Thus we are rationally led to a cost allocation approach. Yet such a system, to be workable, must depend on generalized predictions,³¹⁹ hypothesizing the typical taxpayer with an expected career life.³²⁰ To go beyond the allocation of costs and implicitly include in income the increase in present value of speculative potential revenues, as an offset to the allocated non-speculative cost that has already been sunk, seems far more questionable, *unless* we conclude (as I did with many financial and physical investments) that it is fair and reasonable to rely on those projections in the individual case. Since other, non-purchased human capital accumulations are not taxed at the outset or as their present value increases over time, purchased human capital should not be singled out for such treatment.

Using a cost-allocation accelerated depreciation rather than economic depreciation may turn out to have returned "too much" capital in early years and understated the economic gain. That

319. See Mundstock, *supra* note 286, at 1222 n. 198 ("Most depreciation currently is determined in accordance with inflexible schedules that presumably reflect congressional expectations."). Of course, a cost recovery system could be more flexible and not follow a traditional, schedular depreciation or cost allocation approach. See, e.g., *id.* at 1237-42. (proposing that certain costs of intangible capital be recovered by deducting incremental expenses against the resulting incremental revenues generated (combined with a schedular amortization of remaining non-deducted amounts)).

320. Of course, taxpayers with different career lives (not to mention plans) may be paying the same price for certain human capital, e.g., a particular tuition charge, and taxpayers with similar career lives may be paying differing amounts for comparable education, because of different pricing and costs among educational institutions, tuition subsidies (public or private), scholarships, etc. A wealth of complex and interesting issues flow from those observations. See, e.g., *supra* text accompanying notes 95-117, 171-76 and *infra* text accompanying notes 368-86. Nevertheless, if we stay for the moment with the unrealistic but useful assumption running through this comment that equal revenues will be generated in each year, then a cost allocation per Professor Kahn's analysis seems reasonable.

Alternative cost recovery systems might be devised. See preceding footnote.

result does not mean that the income from purchased human capital will not be taxed; tax is simply deferred until gain is more clearly manifested in marketplace earnings, which also describes the general treatment of human capital. I noted earlier the question of whether that deferral should be counteracted, either through a relatively crude device like the progressive rate structure or through a special deferral charge. In this section I assume such a response is unnecessary.³²¹ If a contrary judgment is reached as discussed below, the response should be a general one that will not discriminate in this respect in its treatment of purchased and unpurchased human capital.³²²

Economic depreciation of purchased human capital would effectively remove such deferral, but only in that limited category of purchased human capital and with a universal sweep that would cover many instances where the projected earnings are way out of line with an individual's market earnings. I would not adopt such an approach — which is, on the one hand, far too selective and, on the other, extremely overbroad — for addressing the human capital deferral issue.

If we thus exclude human capital from the “normative ambit” of economic depreciation and permit a cost allocation approach, we should ask whether human capital is truly unique or whether the costs of other investment may also be appropriately recovered under a cost allocation approach. We have seen that economic depreciation is sensible for many business or investment assets where future revenues may be projected with relative certainty (putting aside the impact of future market shifts³²³) and where only a depreciation schedule that accounts for the increase in present value of those future revenues will tend to reflect with accuracy the breakdown of current receipts among income and capital. Remaining capital can be readily identified because, at any given point in time, the present value of the future revenues can be ob-

321. The advantage from the deferral of tax until there are market earnings may be viewed as an inherent part of an income tax that generally reaches only the accumulation or consumption of claims on social resources. *See supra* text accompanying notes 148-67. It may also be seen as inhering in risky assets that do not contractually fix a return in the form of explicit or implicit interest, rent, etc., that must be paid by another party. *See Bulow & Summers, supra* note 281, at 37. One might further argue that the tax advantage from deferral is desirable because it may encourage risktaking and thus ultimately benefit society, a contention that I recognize is veering toward a tax expenditure position.

322. *See infra* text accompanying notes 333-39.

323. *See supra* note 290.

tained by selling the asset. Accelerated depreciation of those assets introduces a preference that will have an upward impact on the price of the asset,³²⁴ that preference will distort investment choices between assets producing a currently taxable investment return and those subject to accelerated depreciation which may be viewed as producing an untaxed imputed return.

Are there capital investments in addition to human capital where this analysis may not fit — where we expect the capital to be used up over time but we might properly determine not to impute an investment return? That question deserves further study. Investments that might qualify for alternative forms of cost recovery include those that are made to generate income that may vary widely among individual cases, that are not easily compared to other investment alternatives, and that are not readily bought and resold in an efficient market reflecting consistent expectations as to future revenues.³²⁵ Capital investment in intangibles unique to a

324. Mundstock, *supra* note 286, at 1210-14, analyzes the availability of depreciation deductions, which increase the price of an asset to a buyer, as compensation for the tax imposed on a seller's gain. While the sale price would normally reflect the present value of future revenues, an accelerated depreciation method that ignored increases in the value of such revenues (even though such increases would be reflected in the price at which the buyer could resell) would tend to increase the value of the asset to the buyer and, thus, to the seller.

325. One might suggest that this line of analysis would support depreciation — indeed, accelerated depreciation — for risky assets that we traditionally think of as non-wasting and non-depreciable, such as an investment in the stock of a high-risk company. In contrast, such traditional non-depreciable treatment might indicate that we take into account the increase in present value of future revenues, e.g., dividends or gains on the risky stock, as we do in the case of land, even though such revenues are far less certain. I do not think that is the necessary or appropriate conclusion. If it were, then our existing tax law would impute a "time value" return (like OID) in the case of any investment where the expectation is that revenues will be generated only several years from now, e.g., after a start-up period. In that case, at the end of an earlier year no capital would have been used up, but there would be an increase in the present value of future projected (hoped for) revenues. What I think is indicated by the case of a risky corporate stock investment is that our expectations are so unclear as to *both* the amount of future revenues and the timing thereof that we are unable to conclude that any capital has been used up after a particular year. Whether or not earnings have been produced and/or a dividend paid, thus indicating (or not) that some revenue-generating capacity has been used, there is no reliable expectation that the value of the revenue-generating capital has been reduced or has increased with the passage of time. This may be contrasted with human capital or with certain business intangibles, e.g., expenditures for advertising or technological know-how, where there may be more reliable expectations that, as a year passes, predicted revenue-generating capacity (to which costs may appropriately have been allocated) has been consumed notwithstanding the speculative quality of expectations as to the future.

Incidentally, it might in fact be appropriate to impute and accrue a time-value return on investment assets more generally, but such a suggestion is beyond the scope of this

particular taxpayer may present one category warranting special consideration. As with human capital, cost recovery deductions could be limited to prevent abuse. For example, deductions could be usable only against income or incremental income considered to be generated with the investment.³²⁶ Also, as with human capital, a deferral charge could be considered to compensate for a failure to include time-value increments with respect to revenues that do in fact materialize.³²⁷

iii. Modifications to Cost Recovery Method to Reflect Empirical Study

As indicated, the preceding discussion reflects the simplifying assumption that human capital from education will produce a constant revenue stream over a career or other appropriate depreciation period. That assumption may be modified on the basis of more detailed and empirical study of the use of education. Such a study may inform this analysis, not only with respect to the income curve, but also with respect to the particular useful life over which costs should be recovered. These two variables, the income curve and the useful life, may be very much intertwined. Thus, while the useful life for business purposes of a college, professional, or technical education might broadly be said to be the remainder of the individual's working life, e.g., to a retirement at age sixty-five, it seems likely that in many cases the business value of some education may be used up or abandoned rapidly. The value of all such education may diminish after a relatively short period of time in terms of the magnitude of its importance in producing income.

Some education may become obsolete. For example, a technical education in automobile repair, or even a "high tech" field like computer programming, may turn out to be relatively short-lived in terms of the time during which the specific knowledge gained may contribute to income production. Education might also provide

paper. In that event, human capital investments might still be excepted on the grounds that the deferral of tax until earned income is produced should be dealt with (or not) in other ways. See *supra* text accompanying notes 200-14.

326. Cf. Mundstock, *supra* note 286, at 1238-39; see *supra* text accompanying notes 315-16.

327. See *supra* text accompanying notes 185-225. Notice, however, that such adjustments might logically be considered with respect to any investment for which there is not currently any accrual of time-value increments for tax purposes. See *supra* note 325.

some elements of lasting value but other elements that contribute to earnings only briefly, if at all. Depending on his practice, a lawyer may make little use of his law school course in securities regulation, and he may have completely abandoned, as far as reasonably foreseeable, any conscious value from his conflicts of law course. One can certainly question whether all of the costs of such education generate equivalent amounts of income for each year of the remainder of one's career.

The wisdom of carving up the elements of education in such a fashion may be debated. A college liberal arts program or a legal education, as two examples, might be thought to give rise to education that should be considered as a whole because it develops one's ability to think broadly and to adjust to changes in economic and social conditions. These types of education perhaps produce human capital of more lasting value. Even adopting this view, however, such education might still be found to contribute more to the production of income in a graduate's early career, when the student may be employed largely on the basis of her degree, and less so in later years when income might be attributed more to experience, on-the-job training and education, personal and business relationships, general interpersonal skills, native intelligence, personality and other similar factors.³²⁸

Congress, or the Treasury and IRS, drawing on economic research, could sensibly formulate categories and methods to reflect more accurately the consumption of human capital from different types of college, professional, and technical education. Such categorization would more accurately match education costs to the income generated.³²⁹ Whatever the method devised, it could be

328. See, e.g., Gross, *supra* note 4, at 938. A different theory might treat education as having less value at the outset of a career when earnings will be relatively low and may be largely attributable to specific start-up training on the job. The difference between these two views depends in part on the question of whether to attribute to education the value obtained from getting the job in the first place, and the consequent early years' earnings, and in part on how much to attribute later years' income to the general aspects of much earlier education. There seems little question that over time, the direct contribution to earnings from much of the specific content of one's education is reduced as one's continuing education and experience become more and more important.

329. In light of the interrelationship between the amount of income produced from education and the period over which the income is generated, one approach that might make sense would be to apply a version of the *income forecast* method of cost recovery to education expenditures. See *supra* notes 32, 248. Under that method, cost recovery in a given year is permitted to the extent of a fraction applied to the costs. In this fraction, the numerator is the earnings produced that year and the denominator is the total income

modified to avoid including in income an increase in present value of projected future earnings inconsistent with our general approach to earned income and human capital. Thus, the acceleration that results from a cost allocation approach may be added to the formula.³³⁰

In sum, one normative approach to human capital taxation is to include accumulations in income only at the point at which they are manifested in current market earnings. It is only at that point that human capital generally yields current claims on social re-

forecast for the asset. If the income projections change, adjustments to the fraction are made. As applied to education, this method has the advantage of eliminating the unrealistic rule in the § 167 regulations mandating straight-line depreciation of intangibles over what may in theory be a long useful life, e.g., a remaining career, when in fact most of the income attributable to the asset may be earned in the early portion of that useful life. Treas. Reg. § 1.167(a)-3 (as amended in 1972); cf. *Associated Patentees, Inc. v. Commissioner*, 4 T.C. 979 (1945), *acq.* 1959-2 C.B. 3 (indicating that depreciation on a purchased patent, the cost of which is paid in the form of royalty-type payments reflecting a percentage of the purchaser's sales or income over a period of years, may be measured each year by the amount of the royalty-type payment in that year; depreciation thus varies with income produced, and the patent's useful life is effectively determined by the period during which substantial income is produced).

The income forecast method may be too complex for general use, but the notion of relating cost recovery to the income curve could be reflected in statistically developed depreciation tables. Moreover, unless adjusted, the income forecast method would, like the straight-line method, effectively involve some accretion of the present value of future years' income. See *supra* text accompanying notes 262-89.

330. In this discussion no inflation is assumed. The impact of inflation deserves further consideration in connection with cost recovery as a general matter and specifically with respect to education costs. Capital assets are not currently indexed for inflation, even though the effect of inflation is that fixed dollar costs are recovered against income reflecting subsequent inflation. This effect arguably results in an overstatement of income and an inadequate recovery of the capital that will be required to purchase higher-priced replacement assets reflecting the deflated value of the dollar.

With tangible personal property like machinery and equipment, the accelerated methods of recovery may be viewed as at least partial compensation for inflation. With real estate, for which present law generally permits only straight-line depreciation, the expectation over the last several decades has been that the value of real estate will increase, and thus the holder will not suffer the same loss of capital that one normally associates with a wasting asset. As to education and human capital, for which there is currently no scheme of capital cost recovery, a failure to adjust for inflation would seem to overstate income for the reasons noted above with respect to other wasting assets. An education is not like a parcel of real estate. It will be used up, and it may distort net income to recover old fixed dollars against income generated in cheaper and thus more numerous dollars on account of inflation. On the other hand, investing in education is not like acquiring a piece of machinery that will require replacement. To the extent that on-the-job training may replace the education, it will generally be deductible currently, and in current dollars, either to the individual or to his employer.

The accelerated cost recovery proposed here for education would reduce the impact of inflation by concentrating deductions in the earlier years.

sources.³³¹ With this approach, a surrogate for the up-front taxation of human capital accumulations is not needed. Thus, education capital costs should then be recoverable, and an accelerated method of depreciation is warranted in order to avoid the effective inclusion of an increase in value of human capital accumulations prior to the generation of market earnings.³³²

b. Case B — Human Capital Effectively Taxed (Directly or through Surrogate) at Time of Accumulation

The previous section addressed the cost recovery implications of the potential judgment that human capital accumulations should *not* be taxed up front, either through direct taxation or through a surrogate seeking a comparable tax impact. The analysis and resulting insights can now be brought to bear on an alternative judgment that the up-front taxation of human capital accumulations should be replicated to some degree.

For purposes of this discussion, it is assumed that no one would actually propose to send a student a tax bill for the education value obtained without the investment of after-tax dollars. Rather, a surrogate would likely be sought that would compensate for the alleged savings to the student by deferring tax otherwise payable up front.

331. One might treat differently a situation where a taxpayer is able to borrow against the increase in future earnings expected from education. *See supra* note 155. It might be difficult to determine exactly the amount that would be attributed to these future earnings, but comprehensive rules could be developed that would tax an individual on consumption funded by borrowing against assets representing as-yet unrealized income. (Indeed, comprehensive rules could be developed to deal with almost any tax issue, but I have seen enough of them already to confess that I shudder at the idea of more, and I recoil a bit from the idea of actually proposing them.) However, under current law it would make little sense to do this in an effort to tax unrealized future value inhering in human capital from education because, in general, the proceeds of borrowing against other capital representing unrealized income, e.g., appreciated corporate stock, is not presently taxed. *But cf.* I.R.C. §§ 453A(d), 956 (illustrating special rationales for taxing proceeds of loans: in the case of § 453A, a gain has already been realized but is deferred via an installment sale; in the case of § 956 there is repatriation of earnings from abroad).

332. Even apart from that normative judgment, the treatment of human capital relative to other investments must be considered. Rapid cost recovery is already permitted under § 168 for tangible personal property. I.R.C. § 168. Expensing, the fastest form of cost recovery, is permitted for research and development expenditures under § 174, as well as for a limited amount of tangible personal property under § 179. I.R.C. §§ 174, 179. While Congress may have enacted these code provisions to provide a "tax expenditure" to stimulate such investment, the relative discrimination against investment in education is apparent and suggests accelerated recovery of education costs as a matter of parity, if for no other reason.

The central issues in devising such a surrogate are, first, the amount of tax deferred and, second, the length of the deferral. The first issue requires a further judgment to determine the kind of human capital accumulations that should be taxed up front. One approach would be to try to account for forgone earnings; it is the absence of an up-front tax on forgone earnings, and the resulting inequity and distortion in favor of "untaxed" education over "taxed" workforce earnings, that seems to concern many economists and tax law scholars.³³³ A broader approach might seek to impose a charge equivalent to the amount that would have been the tax on the present value of the future incremental earnings from education. That figure would be difficult to determine and would not be particularly useful unless it were "folded in" to a more general surcharge on earned income through the progressive rate structure or otherwise.³³⁴

Various approaches to surrogate taxation that might be taken have already been noted. It has been observed that a refusal to allow cost recovery for out-of-pocket education costs is ill-suited to serve this purpose. A deferral charge is more likely to be useful in compensating for the "failure" to tax forgone earnings or tuition subsidies up front. However, consideration should be given to relying on the progressive rate structure in combination with earned income surcharges to achieve appropriate taxation of earned income derived from earlier human capital accumulations or diminutions from all sources. In this latter case, a deferral charge might be a component part of the approach in order to deal with deferral enjoyed by a taxpayer who is consistently in the highest tax bracket.

If a deferral charge were to be imposed, resolution of the issue regarding length of the deferral period will be directly affected by the choice of cost recovery method for education capital costs.³³⁵ A more accelerated recovery method, as I have proposed, would

333. See *supra* text accompanying notes 95-111. An alternative, although one that is not mutually exclusive, see *supra* text accompanying notes 112-13, would be to try to achieve the effect of up-front taxation of a tuition subsidy. That approach assumes a subsidy could be identified, quantified, and, with some confidence, characterized as income. See *supra* text accompanying notes 112-17.

334. See *supra* text accompanying notes 171-84.

335. I am assuming, of course, that the disallowance of cost recovery for tuition and other education costs would be rejected as a surrogate for human capital taxation and that a system of cost recovery would be installed for those capital expenditures on education expected to produce greater earnings over one's career.

mean a shorter deferral period and, thus, a lesser deferral charge.

Consider a simple example using the same Chirelstein/Kahn numbers considered in the preceding section of this article. Assume that a student incurred zero out-of-pocket education costs, that his forgone earnings were \$4000, and that the educational institution's costs in providing the education to the student were \$4000. Further, assume that the expected incremental earnings from the education will be \$1200 per year for each of the next five years with the present value of those earnings equal to \$4000. With these simplifying assumptions, it can readily be concluded that the up-front value of the education, which is not paid for with after-tax dollars, is \$4000. If a tax were imposed on that amount up front, the \$4000 should be treated as if paid over to the educational institution as tuition and, thus, as giving rise to basis in the human capital. That basis should then be recovered through cost recovery deductions as the education is used.

The rate at which this putative basis should be recovered will determine the length of the periods for which taxation of human capital accumulations is in fact deferred. A slow rate of cost recovery of the \$4000 in this example, as would occur with economic depreciation, would mean that larger portions of the \$4000 that "should" be taxed up front would go untaxed for longer periods relative to the time at which recovery would occur if those portions had been taxed up front. Conversely, an accelerated method of cost recovery of this putative basis would mean shorter periods of deferral.

As discussed in the preceding section, a cost recovery method that is less accelerated than a cost allocation approach would effectively result in the inclusion in income of some part of the annual increase in present value of projected future earnings. A similar accretion of future earned income derived from other types of human capital is not imposed, whether the capital is derived from self-development, experience, on-the-job training, lucky circumstances, or other factors. Further, there does not appear to be impetus or reason for such a radical revision of the taxation of earned income and human capital anytime soon. Even assuming agreement on an objective to replicate the up-front taxation of forgone earnings or a tuition subsidy, or some still broader measure of education value, the surrogate chosen to accomplish that goal should not selectively impose a special charge on increases in present value of future earnings derived from education. Thus, a surrogate that would reflect the putative inclusion of a human capital accumula-

tion up front should also reflect the putative recovery of the resulting tax basis using an accelerated method.³³⁶

If an accelerated cost recovery method is normatively sound, the period of deferral resulting from the "failure" of current law to tax human capital accumulations up front is reduced. The difference between the current law and a system that would provide a surrogate for up-front taxation combined with accelerated cost recovery can be readily analyzed by thinking of current law as providing immediate expensing. The effect of the current non-taxation of human capital accumulations up front is the same as if the student's accumulations were included in income, but were offset by an immediate deduction. The length of the deferral achieved by the current system depends on the point at which the student would otherwise have been allowed to recover his costs. If the "proper" recovery should have been on an accelerated basis, a lesser advantage was derived from the effective expensing than would have been obtained if the proper benchmark were a straight-line or decelerated method.

In short, the normative case for accelerated depreciation should be factored into determination of the tax deferral that might warrant a surrogate charge. Unless we so drastically alter the taxation of earned income that we uniformly achieve the impact of a tax on the annual increases in present value of future earnings, accelerated cost recovery is the appropriate benchmark for comparison with current law. This method would reduce the extent of deferral and the extent of additional compensating charge arguably required.

If instead of imposing a deferral charge, a broader approach is taken with respect to the taxation of human capital, e.g., a general surcharge on increased earned income from human capital, the specific period of deferral from the time education is acquired until the production of market earnings will not be so relevant. As discussed above, if one seeks to determine a charge to compensate for the "failure" to tax up front the *full* accretion to the present value of future earnings from education rather than simply responding to

336. This, in turn, means that most of the education costs measured by the forgone earnings or tuition subsidy invested in education would putatively be recovered in the earliest years of the use of the education and that the constructive deferral period will be surprisingly short. See *supra* text accompanying notes 228-31. For example, using the same \$4000/5 year example, under the accelerated cost allocation approach almost 50% of the cost recovery would occur in the first two years of the five year period. See *supra* text accompanying notes 268-80 (\$1045 recovered in Year 1 and \$905 recovered in Year 2).

the deferred taxation of an amount representing forgone earnings or a tuition subsidy, then one can do so fairly only by examining, with hindsight, the actual yearly earnings produced by the individual. However, those earnings will reflect a myriad of human capital factors in addition to education. Therefore, it makes little sense to make an adjustment only for education.³³⁷ Consequently, any charge on increases in earned income, whether imposed through the progressive rate structure or a special surcharge on earned income,³³⁸ should reflect the netting of accumulations and diminutions of human capital that would have occurred at different points in time. A composite of different deferral periods would be at work.

For example, earnings may remain the same over a period of years, notwithstanding accumulations to human capital five years ago from education, because those accumulations may have been offset by other factors such as personality clashes, economic conditions, and personal choice. Considering the education in isolation might suggest a deferral charge reflecting five years' worth of investment income on the putative tax not paid up front at the time of the education. However, a "negative deferral credit" may be warranted to reflect a diminution in human capital. Even if such diminution occurred only one year ago, producing a shorter period of deferral, if earnings have not increased there is no need for any surcharge. In theory there should be a larger deferral charge on the accumulation five years ago than the deferral "credit" for the diminution one year ago. However, that differential is offset because the present value of the accumulation five years ago would be much lower than the present value of the human capital diminution one year ago.³³⁹

2. Implications for Interest Deductions on Education Loans

Questions of interest deductibility have been viewed from two perspectives that depend on different concepts of interest under Haig-Simons principles.³⁴⁰ From one perspective, interest should be considered part of the cost of the asset or other item to which

337. See *supra* text accompanying notes 171-214.

338. See *supra* text accompanying notes 202-14.

339. See *supra* note 212.

340. See generally GRAETZ, *supra* note 77, at 450-55; SURREY et al., *supra* note 25, at 518; Koppelman, *supra* note 127, at 715-17.

the proceeds of the loan are devoted. Thus, in the case of an education loan, the interest charges would be viewed as part of the cost of the education. If the education were truly personal consumption, then the interest cost would also be properly viewed as personal consumption and no interest deduction would be warranted. This is generally the treatment under current law. However, the "personal" label as applied to a wide range of education expenditures seems unwarranted.³⁴¹ Assuming education expenditures should, to a great extent, be recoverable because they are incurred in connection with an income-producing career, interest charges should similarly be recoverable.

If education expenditures were treated as recoverable capital costs, then by analogy to section 263A,³⁴² the interest charges during the "production period" when the student is pursuing an education and gaining human capital should be capitalized and recovered through the cost recovery system. Continuing with that analogy, interest costs incurred after a person embarks upon an income-generating career would be currently deductible.³⁴³ I would limit such interest deductions in a given year, like tuition cost recovery deductions,³⁴⁴ to the earnings generated during that year from the career in which the education is used. Then a carry-

341. See *supra* text accompanying notes 33-53.

342. I.R.C. § 263A.

343. Perhaps the interest charges incurred after one enters a trade or business should also be capitalized, with depreciation deductions taken over the remaining period in which the education is used, because a piece of each year's interest payment may be viewed as a cost of producing future years' income. See *infra* note 355. That view would be inconsistent with the tax law's traditional approach once a taxpayer is producing income on a current basis. Of course, the very nature of interest charges already involves the spreading of the cost over some period, albeit the period in which the use of money is enjoyed as opposed to the period during which the asset acquired with those funds is used.

To the extent that current deductions may be thought to accelerate recovery for tax purposes of the interest cost, that acceleration may be justified by observing that if the loan is paid off before the education ceases providing value in the form of earnings from one's career, it is paid off with funds that could otherwise be earning a return. This results in an opportunity cost incurred with the continued holding of the asset. The cost of interest in this sense is a true cost related not to the period in which the asset is held, but to the period in which borrowed funds are devoted to that asset.

In a sense, the current deduction of interest may represent a shift in the theoretical basis of the interest deduction from the "cost of the asset" view first being considered in text to the "negative income" view of interest discussed in text *infra*. Under the latter view, interest is a reduction in savings during a given period and not itself an item of personal consumption. Thus, interest should be deducted in order to obtain a proper measure of net income for that period.

344. See *supra* text accompanying notes 315-16, 326.

over of any excess interest charges into future years would be permitted. This limitation would be similar to that provided for investment interest in section 163(d).³⁴⁵

Such limitation would serve to prevent tax-advantaged investment in education that would permit "excess" deductions to be used to reduce the cost of personal consumption or non-education investment. Also, by limiting education interest and cost recovery deductions to market earnings generated, the character of the education (and the related tuition and interest costs) need not be presumed in advance to be business-related rather than personal. In a sense, the education is treated as personal and the tax treatment of the tuition and interest costs is held in suspense until "proof" of the business character of the education is supplied in the form of market earnings generated with the education.

The second approach to interest deductibility views interest not as part of the cost of the asset or other item acquired with the loan proceeds, but as an independent expense resulting, in Haig-Simons terms, in a reduction in wealth properly reflected in reduced net income for the year. The interest charge, it is argued, results in neither personal consumption nor savings. Under this view, whether the interest is used for personal or business purposes is irrelevant. This approach arguably treats the borrower in parity with the non-borrower. Taxpayer *A* who funds an expenditure with previously invested assets no longer has the taxable investment return on those assets on which tax previously had to be paid. Thus, tax is reduced due to the decline in wealth attributable to that reduced income.³⁴⁶ Unless an interest deduction is provided to Taxpayer *B*, who funds the same expenditure by borrowing, *B* will have "negative income" attributable to the interest cost and corresponding to *A*'s *reduced* income, but *B* will receive no tax reduction comparable to that provided to non-borrower *A*.³⁴⁷

This approach suggests that the interest on education loans, and indeed interest expense in general, should be deductible because it reflects a decline in wealth not itself devoted to personal consumption.³⁴⁸ However, consistency may require that such an

345. I.R.C. § 163(d).

346. For the moment, any return on the new expenditure is ignored because both non-borrowers and borrowers would obtain the same return in this respect.

347. GRAETZ, *supra* note 77, at 451 (quoting White, *Proper Income Tax Treatment of Deductions for Personal Expense*, in TAX REVISION COMPENDIUM, COMMITTEE ON WAYS AND MEANS, at 365 (1959)).

348. Others have argued to the contrary that this analysis begs the question of what is

approach, accounting for interest as negative income, also include in income true economic gains on a current basis. Otherwise, availability of an interest deduction may simply encourage taxpayers to borrow and invest in assets that produce tax-favored income.³⁴⁹ Indeed, this problem exists under current law with the mortgage interest deduction because the interest is deductible but the homeowner need not include the imputed rental income from the use of the home. This same concern lies behind the investment interest limitation in section 163(d).³⁵⁰

As discussed above, because of the realization requirement, the exclusion of imputed income, and other exceptions, gross income for tax purposes does not include on a current basis all items that might be so treated. Many items are excluded even when they give rise to or may be converted into current claims on social resources.³⁵¹ With respect to education, while the judgment may or may not be made that human capital accumulations should not generally be taxed in advance of their conversion into such claims, I suggest that in either event a current interest deduction is inappropriate to the extent it exceeds any currently taxed income attributable to the education while the remaining value of the education is effectively tax-deferred.³⁵² It is not desirable to provide a shelter-type incen-

personal consumption; a taxpayer who borrows to fund a personal consumption item arguably should treat the interest cost as part of that personal consumption because borrowing reflects the greater worth to the taxpayer of the item to be consumed today than the value of that item if consumed on a deferred basis. See generally, the discussion in SURREY et al., *supra* note 25, at 518. This, then, gets us back to the first view of interest, treating it as part of the cost of the item funded with the loan proceeds, and to the question of whether education expenditures should be treated as personal consumption or as human capital to be used in a trade or business.

349. See Warren, *supra* note 78, at 557-63.

350. See, e.g., GENERAL EXPLANATION OF THE TAX REFORM ACT OF 1986, 99th Cong., 1st Sess., at 263 (Staff of Joint Comm. on Taxation, May 4, 1987). In a general sense, the tax law prohibits borrowing funds to invest in a non-dividend paying stock expected to appreciate in value (through retained earnings or otherwise) and produce value only when disposed of (due to the realization requirement); the § 163(d) limitation restricts the deductible interest to the investment income actually taxed during the year. However, this limitation is imposed on an aggregate basis, considering all investment interest expense and all investment income for the year.

351. See *supra* text accompanying notes 154-57.

352. Even if a surrogate is devised to achieve the effect of up-front taxation of human capital from education to some degree, e.g., forgone earnings, presumably there will still be other imputed income not being currently taxed. See *supra* text accompanying notes 263-327 concerning the use of accelerated depreciation to avoid effecting current taxation of the increase in present value of future earned income as such income draws closer in time.

tive to invest in capital that produces tax-deferred income.³⁵³

Once a taxpayer has entered the "active phase" of earning income with the use of human capital, the deduction of interest on education loans should be permitted to the extent of that income.³⁵⁴ If the goal is to tax the accretion of current claims on social resources represented by income earned in the market, the interest costs should be taken into account as an offset because they cause an actual reduction in such claims. In short, only *net* accretions of such market claims would be taxed, but net reductions resulting from "excess" interest costs would not be permitted to offset unrelated income.³⁵⁵

Thus, while human capital may not generally be thought of in the same way, this may be the same issue presented when an investor has the ability to deduct interest with respect to an investment that is expensed or subject to a depreciation method providing faster cost recovery than economic depreciation. See Warren, *supra* note 78, at 557-63; see *supra* note 291 and accompanying text.

353. As Professor Warren notes, the abuse in the case of the borrower is only arguable in that the interest deduction simply serves to permit an investor using borrowed funds to obtain the "tax-favored" untaxed or low-taxed income that would already be available to the investor who does not need to use borrowed funds. Warren, *supra* note 78, at 560. Still, concern is warranted to avoid stimulating inefficient investment.

However, with potential relevance to education loans, Warren notes:

It may well be that extension of tax preferences to debt-financed investors is more acceptable with respect to some preferences (such as those intended to encourage the acquisition of particular kinds of assets) than it is with respect to others (such as preferences intended simply to offset the effects of taxing capital income).

Id. at 574. Congress might therefore conclude that an interest deduction for development of human capital through education (with the larger societal benefits previously discussed) is appropriate and desirable. Congress should carefully consider the limitations it might place on such deduction, and may not want to impose limits as tight as those proposed in the text.

354. There may, of course, be some factual issues in determining what income is related to the education. And if one wanted to examine the relationship more closely, one might argue in some cases that much of the income is derived not from the education but from some other human capital not similarly financed. Perhaps this prospect should not be of concern as long as the human capital accumulated through education and other factors is so interwoven that a taxpayer will invest in education as part of an overall process aimed at producing income in a career.

355. As noted, one could treat the annual interest cost on a depreciable asset like education as only partly a current expense. Cf. Johnson, *supra* note 187, at 1071 & n.130 (arguing that "[w]hile the remedy to prevent negative tax for expensed investments would be to disallow all interest deductions, the remedy for accelerated depreciation would be to disallow only a part of the interest deductions . . ."). The balance could be treated as a capital cost related to the income to be earned in future years. This is the effect of capitalizing the "production period" education loan interest cost in a manner similar to that required by § 263A. Thus, if accelerated depreciation of human capital were employed and the increase in present value of future years' earned income from that capital were

Thus, under both perspectives on the tax treatment of interest, it makes sense that pre-career interest costs should be capitalized and depreciated in the same manner as determined proper for tuition and, further, that interest charges during the course of one's career should be deductible currently to the extent of current earnings from that career.

If an interest deduction were not allowed or were more limited because of the arbitrage concern, the effect would be to impose a special surrogate tax burden on human capital accumulations from education, but only with respect to those who borrow to finance such education. This article's proposal would strike an appropriate balance between shutting off shelter potential and avoiding a penalty for the borrower relative to the self-financed student.

3. Implications for Treatment of Scholarships and Other Financial Assistance

a. Scholarships

In evaluating the scholarship exclusion, whether from the standpoint of pursuing an ideal income tax that "perfects" the concept of net income or simply as a "tax expenditure" to support free or reduced-cost education for some students, it is important to recognize that in substance the exclusion has the effect of an immediate form of cost recovery, or expensing, of the amount of the scholarship grant that might normatively be included in income as an accession to wealth.³⁵⁶ When that treatment is considered in light of the issues raised by the alternative approaches to taxing human

not taxed, deduction of part of the interest cost related to such future years' income might be deferred as well. Of course, this formula would add complexity, and it would add to problems associated with the need for tracing borrowed funds in fungible dollars into particular investments.

Limiting the education loan interest deduction to the net earned income generated in a given year with the education would minimize this complexity. At the same time, such a limitation should reduce the potential for encouraging borrowing that seeks to take advantage of an arbitrage to reduce unrelated taxable income. The proposed restriction would effectively "stack" the interest costs against the realized earned income and defer any excess in much the same way as the investment interest limitation of § 163(d), but without permitting aggregation of different investments. Alternatively, one could stack the interest costs first against the unrealized (and thus "tax-favored") income represented by the increase in present value of projected future income, and disallow that portion of the interest. See Warren, *supra* note 78, at 571-72. The latter would seem to make little sense, however, because it is so difficult to identify with any precision the unrealized income that is being "deferred" in some normative sense.

356. See *supra* text accompanying notes 84-85.

capital and the lessons imparted from that analysis for the question of education cost recovery in general, the tax policy implications for the treatment of scholarships are significant.

To illustrate the effect of the exclusion, consider a student attending a professional or technical school at a cost of \$10,000 for the year. Assume that the institution has no endowment and receives no donations or government support and that the student did not forgo any earnings.³⁵⁷ Thus, for the moment we are not concerned with interrelationships with forgone earnings or tuition subsidies. The tuition charge to the typical student is \$10,000, the amount which generally represents the school's cost in providing the educational services.³⁵⁸ Assume also that \$10,000 is the present value of any future incremental earnings expected by the student.

In an ideal income tax, the \$10,000 tuition should be deductible over some appropriate period of time³⁵⁹ as a cost of earning a living in the particular business or profession for which the student is training.³⁶⁰ When a student is given a full scholarship and charged \$0 tuition, the effect is the same as if the student received \$10,000 which he included in gross income, and then he paid the \$10,000 back over to the school as tuition while expensing that entire amount of tuition in one year, i.e., claiming a 100% deduction currently. So viewed, the scholarship is effectively included in income, but with the beneficial feature that the corresponding education cost can be immediately deducted.

If, again, it is assumed that tuition costs should be recovered in this case over *some* period, then the scholarship exclusion does not really effect a permanent exclusion from income. Rather, it effectively *accelerates a constructive* cost recovery deduction by allowing the scholarship to be currently expensed. This assumes, of

357. The student may have been unemployable or, quite the contrary, may have been able to earn as much while a student, on a part-time basis and during vacations, as would have been the case working full time in the marketplace.

358. Of course, the institution would have to charge tuition at a rate somewhat higher than its costs if it is to provide partial or full scholarships to some students.

359. In an even "purer" ideal income tax, the tuition charge might be immediately deductible as a reduction in savings, while the value of the education would be included in income as an addition to savings. See *supra* text accompanying notes 251-53. The point here is simply that *at some point* the cost of the education should be accounted for in determining net income.

360. I am assuming for the moment that there is no element of personal consumption from the particular education. See *supra* text accompanying notes 33-53.

course, that if a student receives a scholarship covering all or part of her tuition, she would not be allowed to claim *actual* cost recovery deductions for the amount of tuition cost she never actually had to pay (in addition to the constructive expensing resulting from the scholarship exclusion).³⁶¹

Acceleration of a deduction implies a deferral of income. Assuming education costs should be recoverable over time, the effect of what is nominally a scholarship exclusion, but what in substance achieves an expensing of education costs, is to *defer* rather than to exclude any income represented by the scholarship grant. Because the exclusion may be seen as giving the student an immediate recovery of tuition costs against a scholarship grant that *should* be viewed as income, i.e., as an accession to wealth, those costs will not be available for recovery later when that student begins to obtain market earnings. By contrast, the non-scholarship student paying tuition and claiming subsequent cost recovery deductions would have those deductions available to use against future earned income. Thus, the scholarship student would have more income later, on a deferred basis, relative to the non-scholarship student who would at that time be claiming cost recovery deductions for out-of-pocket costs.³⁶²

To illustrate this with another simple example, suppose the

361. See Wolfman, *supra* note 4, at 549.

362. The scholarship exclusion, or effective expensing of tuition costs up front, may save little in taxes at the time because the student might be in a zero or low tax bracket and have no other income. The scholarship student might thus be at a disadvantage when compared with a non-scholarship student if the latter is permitted to claim cost recovery deductions later when he is in a higher tax bracket. It might therefore be appropriate to allow the scholarship student to include the scholarship in income but to defer the offsetting deduction. The result would be a loss carryover of some sort, perhaps to be used through elective amortization over a relatively short period of earnings after the education is completed. With the scholarship benefit currently structured as a simple exclusion under I.R.C. § 117, such carryover benefit is, of course, impossible. Thus, § 117 will benefit some recipients more than others depending on the circumstances in the particular year of receipt.

As discussed *infra* text accompanying notes 402-05, in the case of scholarships for college in particular, it is frequently the student's parents who benefit from a current exclusion from income, to the extent they are relieved of a tuition cost they otherwise would pay. Some parents will be in high tax brackets relative to other parents and students who benefit from the exclusion. Thus, there will be considerable disparity, and indeed inequity, inherent in a provision that effectively provides immediate cost recovery rather than recovery over time against income later produced by the former student with her education. This problem would, of course, be minimized or eliminated to the extent the scholarship exclusion is limited in practice or by law to cases where the beneficiaries (students and families) are needy and in low brackets.

scholarship student who fully avoids the normal \$10,000 tuition charge earns later, over a period of years, \$50,000 attributable to the \$10,000 worth of education. The scholarship student will pay tax on that \$50,000 as and when it is earned in the future. The non-scholarship student, *if permitted cost recovery for the \$10,000 tuition*, will pay tax on a net of \$40,000 in the future years (\$50,000 earnings less \$10,000 tuition cost). The \$10,000 scholarship is thus taxed, in effect, but on a deferred basis at the point when the education value is converted into market earnings.³⁶³

Obviously under current law, which provides no cost recovery for tuition costs not meeting the tests in Treasury Regulation section 1.162-5,³⁶⁴ both students would pay tax on \$50,000 of future earnings, notwithstanding the fact that the scholarship recipient was relieved of the \$10,000 tuition charge the non-scholarship student had to pay. Section 117 can thus be viewed in these present-law circumstances in two ways. Section 117 may provide an exclusion for a \$10,000 in-kind benefit in the form of the scholarship, effectively representing a release from or assumption of what would otherwise be a debt for the tuition cost. In the alternative, section 117 may provide a limited case of cost recovery through expensing available on a discriminatory basis only for the scholarship recipient (and quite possibly her parents, who may be the ones to enjoy the benefit). However, the logic of providing a cost recovery system only for those students receiving scholarships is elusive.³⁶⁵

The case for a scholarship exclusion therefore differs depending on whether we have a general system of cost recovery for education expenditures. With such a system, the scholarship exclusion

363. See Crane, *supra* note 9, at 82.

364. Treas. Reg. § 1.162-5 (1988 & Supp. 1989); see *supra* text accompanying notes 16-24.

365. If there is general cost recovery for education expenses that contribute to one's career, then there should also be cost recovery for the value one receives in the form of a scholarship and invests in the education. In that case, the scholarship exclusion may be viewed simply as providing a very fast form of this cost recovery. However, if there is no general system of cost recovery for education expenditures, and therefore no recognition of the fact that such amounts are costs of earning income, then why be concerned with cost recovery for scholarship recipients? Logically, the scholarship exclusion may in the latter case be viewed as a straightforward "tax expenditure" to exempt from tax a grant that makes education cheaper. *But cf.* Crane, *supra* note 9, at 84-86 (defending the notion that scholarship students may be more entitled to cost recovery deductions than non-scholarship students, but recognizing difficulties and ambiguity in this position and implicitly supporting a general cost recovery system). See *infra* text accompanying notes 382-84.

simply represents a more accelerated form of cost recovery, albeit the most accelerated possible (expensing). The exclusion can be tested and evaluated as such. If the rate of recovery is "too fast," it can be adjusted for the resulting deferral of income through a deferral charge or otherwise.³⁶⁶ In certain cases we may determine that no adjustment is necessary. For example, we may conclude that the undertaxation of investment income resulting from deferral³⁶⁷ in the case of a needy student is *de minimis* and requires no compensating charge, or we may decide that a small investment return in such a case may be ignored because of the larger return to society produced by making education more widely available to less affluent students.

If there is no general system of cost recovery, however, the exclusion for scholarships is difficult to justify other than as a "tax expenditure" to provide direct government assistance to scholarship recipients in the form of a tax saving. The difference in treatment between the scholarship recipient and the non-scholarship recipient no longer is simply one of deferral and an effective exemption of investment income on the after-tax value of the scholarship grant. Rather, the non-scholarship student (or his family) will have incurred a tuition cost not borne by the scholarship recipient which will never be recovered in determining taxable income, and the student will, as a result, *permanently* pay tax on a higher net income than the scholarship recipient. This inequity seems difficult to accept as a matter of tax policy (leaving aside social policy that may support granting scholarships on a tax-favored basis to certain classes of students).

Professor Crane has supported the scholarship exclusion with cogent tax policy arguments focusing on valuation and other problems involved in determining whether a scholarship recipient has received something that should be taxed.³⁶⁸ Crane is concerned with inequities that would arise from the difficulties of identifying and evaluating relative costs and benefits in the education context

366. The method of general cost recovery for education expenditures will make a significant difference in determining the magnitude of deferral benefit for the scholarship recipient who is effectively accorded immediate expensing. If, as suggested above, an accelerated method should generally be used, then the deferral benefit from expensing will be less than if compared with a straight-line or decelerated method. See *supra* text in Part II(C)(1).

367. See *supra* text accompanying notes 185-91 for a discussion of the undertaxation of investment income resulting from income deferral.

368. Crane, *supra* note 9, *passim*.

if the tax law were generally to subject all scholarships to tax.³⁶⁹ It is hard to disagree with Crane's concerns. A further concern, however, is that the present law results in a different set of potentially more troubling inequities and distortions. By integrating a properly limited scholarship exclusion into a general system of education cost recovery, I suggest that we may achieve more rational and non-discriminatory tax treatment that will respond both to Crane's concerns and to mine.

Crane points out that the effective tuition costs at public and private colleges and universities vary widely.³⁷⁰ Public universities generally charge lower tuitions because states provide a substantial subsidy from their tax revenue to support those universities. The level of such tax-financed subsidy varies among universities and states. The tuition at private institutions may also be subsidized by private contributions and investment income from a school's endowment. Again, there is wide variation among schools. These subsidies, to a greater or lesser degree depending on the school, are generalized³⁷¹ in that they inevitably result in some reduction of the stated tuition charge, or "list price," charged to all.³⁷²

Crane proceeds on the premise that "[n]o one would suggest that this [generalized] subsidy should be taxable income to the student."³⁷³ She urges that by taxing scholarships, students who

369. Crane also argues in favor of the scholarship exclusion on grounds that scholarships provide a replacement for personal endowment, and that they do not provide a personal consumption benefit to the student but represent either a social investment for the good of society or a cost of earning income that should be recovered by deduction "or its surrogate, an exclusion." *Id.* at 84. These points are considered *infra* notes 400-02, 407 and accompanying text.

370. Crane, *supra* note 9, at 71-74. See the discussion of "tuition subsidies," *supra* text accompanying notes 112-17.

371. Some of this subsidy may be used by a school to provide individualized support to students in the form of scholarships or other assistance rather than to provide a general decrease in stated tuition.

372. Public universities often have two stated tuition charges, one for students who are state residents and another for non-residents.

Some of the subsidies may provide neither individualized nor generalized tuition support. For example, subsidies may fund research, athletic programs, and other activities that would otherwise not exist. See *supra* text accompanying notes 114-15.

373. Crane, *supra* note 9, at 71. Of course, some commentators have suggested that the benefit inherent in these subsidies *should* in theory be taxed, and they have supported the absence of education cost recovery deductions as a surrogate for the kind of tax Crane suggests no one would impose directly. See *supra* text accompanying notes 112-17.

Crane suggests that taxing scholarships while not taxing generalized subsidies would introduce distortions in the education system by favoring outside support passed on to students in the form of general tuition subsidies. Crane, *supra* note 9, at 91-92. As a

receive larger individual tuition reductions in the form of scholarships would be penalized in relation to students at institutions such as public universities and more highly endowed private institutions³⁷⁴ who receive greater general subsidies made possible by the schools' outside resources.³⁷⁵ Further, Crane observes that the value of an education is difficult to determine by reference to stated tuition costs.³⁷⁶ Not only do subsidies from state taxes or charitable contributions affect stated tuitions, but schools may also effectively vary the tuition charges by imposing a higher cost (the stated tuition) for affluent students and their families in order to use part of those funds for scholarships to provide a lower net cost to other students.³⁷⁷ If scholarships were generally taxable, Crane observes, then "[w]hen nominally high tuitions are charged but are actually paid only by a small fraction of the students attending, the other students would be deemed to have income."³⁷⁸ It seems unfair, not to mention unrealistic, to tax large numbers of students as if they received a substantial discount from market value when it is not clear they would have paid the "list price" used to measure that market value. As Crane notes, "no single 'market value' of the education being received exists."³⁷⁹

result, donors would eschew providing funds to be dedicated to scholarships. *Id.* at 92. For example, donors who might otherwise provide funds for scholarships to students in science would instead be encouraged to provide generalized support to schools with strong science departments. State schools would, of course, be favored to the extent of their generalized public financing that directly results in lower tuitions. *Id.* at 73, 92.

374. Private universities that have the highest support from endowments and current contributions, and that may as a result provide substantial tuition subsidies, may be generally the same institutions that have the highest stated tuitions even after reduction for such a subsidy. See Crane, *supra* note 9, at 71 n.25. This combination may reflect higher costs of operating these institutions. In any event, these schools may present more of a mix of *both* generalized subsidy to all students and large individualized scholarships to some students than do public universities or private institutions with smaller endowments.

375. Crane notes that in 1985, public institutions derived 18% of their revenues from stated tuition charges while private institutions relied on tuition for 55% of their revenues. Crane, *supra* note 9, at 71 n.25 (citing NATIONAL CENTER FOR EDUC. STATISTICS, THE CONDITION OF EDUCATION: A STATISTICAL REPORT 120 (1987)).

376. See Crane, *supra* note 9, at 69-72.

377. *Id.* at 72.

378. *Id.*

379. *Id.* See also Drucker, *supra* note 70; *supra* text accompanying notes 112-16. If, for this purpose, education were valued using the school's costs or the present value of the student's future earnings rather than stated tuitions, enormous difficulties would again be encountered in terms of consistently identifying income among students. There would be significant disagreement over how to account for variations in costs among schools or in the income-earning objectives and potential among students in determining taxable income.

Crane's observations as to valuation difficulties and potential inequities and distortions should give pause to those who would simply eliminate the scholarship exclusion and to those who justify the exclusion solely as a tax expenditure to help scholarship students.³⁸⁰ For example, suppose that John attends UCLA and pays the non-resident tuition, which is subsidized by California taxpayers. Another student, Mary, attends Duke and pays the same net tuition as John because she receives a scholarship that reduces the higher stated tuition at Duke. Crane properly questions whether a student in Mary's position should pay tax on the scholarship amount.³⁸¹

However, while the current scholarship exclusion responds to Crane's concern, it presents inequity of a different sort in the absence of a general cost recovery system for education. If Mary is compared with her fellow Duke student, Rebecca, who does not receive a scholarship and whose family paid a higher net tuition at that same institution because they had scrimped and saved to have more available for Rebecca's education costs, should Mary receive what is, in effect, expensing of her scholarship amount while Rebecca receives no cost recovery at all?

It may be that Mary is needier and that the tax law is therefore doing a nice thing for her by enhancing the value of her scholarship through a tax exemption. The issue for consideration here, however, is not whether section 117 provides a useful or desirable "tax expenditure," but whether it makes sense as a matter of tax policy in achieving a consistent definition of net income. By that test, I would conclude that Mary has received a clear, easily identified and measured accession to wealth relative to Rebecca;

See supra text accompanying notes 92-117, 141-44.

380. Crane also notes that any accession to wealth represented by a scholarship will eventually be taxed when it is translated into realized earnings. *See* Crane, *supra* note 9, at 82. This point is a familiar one. *See supra* text accompanying notes 145-46. A student who receives a tuition subsidy, whether individualized in the case of a scholarship or generalized as in the case of a below-cost tuition charge due to public financing, obtains education value that will ultimately be measured by the market earnings produced with that education. However, without a general system of cost recovery, the scholarship student will still realize untaxed value not obtained by the non-scholarship student because both will be taxed on market earnings, but the non-scholarship student will have incurred a non-recoverable tuition cost not borne by the scholarship recipient.

381. Crane, *supra* note 9, at 81-82. Of course, students could be taxed on any generalized tuition subsidies from taxpayers, alumni, or other sources if we could be confident that income from these subsidies could be accurately measured. *But see supra* text accompanying notes 112-17.

Mary receives a savings in real dollars that is exempted from tax.

Viewed from the cost recovery perspective discussed above, Mary is able to expense the portion of her tuition financed by the scholarship, while Rebecca (or her parents) pays tuition entirely with after-tax dollars. It is not apparent why an "all or nothing" distinction with respect to cost recovery should rest on whether education is funded with a scholarship.³⁸² The tax law lesson to students and their families — that it does not pay to save for

382. Acknowledging this cost recovery perspective, Crane suggests that cost recovery might be more justified as to costs met by scholarship receipts. Crane, *supra* note 9, at 84-86. Crane's discussion is somewhat half-hearted, however, and it would appear that she recognizes the difficulties in denying cost recovery to Rebecca in the above example. See *id.* at 83-86. Crane states that treating education costs as personal consumption might "conceivably be appropriate for those who choose to spend their own after-tax dollars on education, at least if the choice is between total denial and total allowance of the deduction." *Id.* at 85. However, "extending this presumption" to education costs funded with a scholarship "may be inappropriate" because these funds are conditioned on enrollment in an educational institution. *Id.* Crane recognizes that "the fit is not perfect" because personal consumption aspects of education may be funded by scholarships, while many out-of-pocket education expenditures lack any personal consumption aspect. *Id.* However, she concludes that if one must choose between including all scholarships in income or not, then inclusion "may be the greater error." *Id.* at 85-86.

Crane's evaluation of the scholarship exclusion is made against the backdrop of the general disallowance of cost recovery under current law. She is therefore forced to choose between two "errors." In this article, by challenging the normative foundation for such disallowance, I am free to suggest that cost recovery should be allowed generally as well as in the case of scholarships. With that change, the scholarship exclusion need no longer appear as possibly the better of two normative errors. Instead, it becomes a rational form of cost recovery in certain circumstances, and it can be harmonized within a general cost recovery system so that the provisions work in a coordinated manner rather than in conflict with other purposes to create inequities.

Crane also theorizes that education expenditures funded by scholarships may represent greater "investment toward the future income" potential because they may be "more likely to increase the prospective earnings of the needy student than the affluent student." *Id.* at 84. However, she quickly rejects this notion as having any generalized or inevitable truth: "It is unlikely, . . . that a student, because she receives a scholarship, actually makes more of an investment in her future than a student who enjoys a similar experience paid for out of her own personal or family funds." *Id.* at 84-85. I agree with the latter judgment. The middle or lower class student or family who has saved for education may be just as (or even more) intent on having those funds put to good use in a future career as the scholarship recipient. Further, it is not apparent that the affluent student or family has less of a career interest. Payment of full tuition at Princeton and then Stanford Business School for an affluent student may be a direct investment in a future income-producing career in investment banking. That is not to say that full cost recovery deductions should necessarily be allowed to that student. There are means available for dealing with that issue if we want to address it. See the vertical equity discussion *supra* text accompanying notes 60-71. However, it should not be concluded that tuition paid with after-tax dollars as opposed to scholarship grants should be more lightly viewed as a cost of future earnings.

college³⁸³ — could hardly be more perverse.³⁸⁴ Moreover, one must ask why a needy student who does not qualify for scholarship assistance should not also receive current expensing for her out-of-pocket costs, just as the scholarship student does for his grant-financed costs. The current tax law favors students and schools with greater access to scholarship monies.

By contrast to current law, if the scholarship exclusion is integrated with a system of cost recovery for education expenditures, then a very different and rational pattern of treatment and choices emerges. On the one hand, maintaining the scholarship exclusion would avoid the difficulty of determining up front the relative value of a scholarship to attend one school within the universe of many institutions and pricing structures. The inequities and distortions that concerned Crane would be prevented.

On the other hand, the benefit of the scholarship exclusion would be transformed into a deferral of income until the time at which the non-scholarship student would report corresponding income. That deferral benefit can be quantified in terms of the after-tax portion of the investment income on the deferred tax that "should" have been captured by the government in the absence of a scholarship exclusion. To the extent this benefit to the scholarship student is seen as creating its own inequities and distortions, a deferral charge can be imposed to reverse that effect without triggering all of the up-front valuation issues involved in taxation of the scholarship itself.³⁸⁵ In some cases of need, it may be determined that no deferral charge is required because the expensing treatment effected by the scholarship may be normatively justified or tolerated.³⁸⁶ If so, greater parity for needy, non-scholarship students could be provided by allowing expensing for their out-of-

383. Cf. Jeffrey S. Lehman, *Social Irresponsibility, Actuarial Assumptions, and Wealth Redistribution: Lessons About Public Policy from a Prepaid Tuition Program*, 88 MICH. L. REV. 1035, 1057-61 (1990) (discussing the adverse effect of student loan programs on parents' saving for their children's education).

384. This is not to suggest that those who have not saved money for college have been derelict or that scholarships (or even the tax exemption for them) are bad things. What should be questioned is the tax policy rationale for a scholarship exclusion in a system that totally denies cost recovery deductions for out-of-pocket education costs.

385. If a specific deferral charge is to be designed, a judgment must be made, after the fact, as to the value of the amount of income on which tax is considered to have been deferred. Some alternative to "list price" tuition might be determined based on statistics with respect to costs paid by students. The value used could be varied depending on the level of earned income generated by the student.

386. See *infra* text accompanying notes 394-402.

pocket costs, a step that would simply involve an acceleration of cost recovery deductions normally claimed later.

Moreover, in light of the analysis in Part II.B of how human capital should be taxed as a normative matter, the up-front exclusion of education value financed by a scholarship may make more sense than imposing an up-front tax and then granting cost recovery.³⁸⁷ As noted earlier, a human capital accumulation from education does not generally produce the ability to command social resources until manifested in market earnings.³⁸⁸ A scholarship covering tuition³⁸⁹ has a similar effect. It is a measure of an amount of human capital that the student may accumulate without expenditure of after-tax dollars.³⁹⁰ A scholarship does not generally provide the student with cash or other means to consume or save at the student's discretion, but rather it provides education that may turn out to be of greater or lesser economic value depending on future events and choices.³⁹¹ Thus, at least in the situations presented when need-based scholarships are granted, where the scholarship does not "free up" other funds for personal consumption or savings, the scholarship exclusion may be more consistent with the general approach of taxing human capital only when it is converted into market earnings.

If the scholarship exclusion is accepted as a means of deferring income until later market earnings are produced with the education, the next important issue is whether and to what extent to impose a deferral charge later to account for the delay in taxing the accumulation of human capital financed with the scholarship. Imposing a deferral charge may make sense even if one made a judgment previously not to account for a deferral in taxing more speculative accumulations measured by forgone earnings, generalized subsidies,

387. A deferral charge could be relied on to adjust, when appropriate, for the excessively fast rate of cost recovery inherent in the expensing effectively achieved by the scholarship exclusion, just as a deferral charge might generally be used to address the deferral in the taxation of human capital.

388. See *supra* text accompanying notes 141-44.

389. To the extent a scholarship covers room and board, which is no longer within the scope of the § 117 exclusion since the 1986 Act, the scholarship may be viewed as providing current claims on social resources because it fulfills needs that would otherwise have to be paid for out of cash or other resources available for current consumption or savings. Thus, the post-1986 taxation of room and board is proper.

390. See *supra* text accompanying notes 112-17.

391. Cf. Crane, *supra* note 9, at 82, 85 (arguing that scholarship funds are not worth as much as personal funds because they are conditioned on attending an institution of higher learning).

and the like.³⁹² While it is not clear what the scholarship student has gained in terms of future earnings, she has obtained a definite benefit relative to other students at the same school who do not enjoy the same individualized subsidy.³⁹³

A threshold consideration in determining the need for a deferral charge, however, is whether there is in fact a deferral benefit that requires correction in light of the progressive rate structure. I am now assuming, once again, that tuition charges financed with after-tax dollars will be recoverable under a general cost recovery system (ideally under an accelerated method).³⁹⁴ The effect of the scholarship exclusion is to push income that would otherwise be taxed up front into a later period. Thus, the income is moved from a period when income levels and tax brackets would probably be

392. I previously suggested that different normative judgments could be reached concerning whether to seek to replicate the up-front taxation of human capital accumulations or whether simply to include amounts in income when human capital is converted into current claims on social resources (whether these claims are exercised through consumption or saved). See *supra* text accompanying notes 225-26. The same issue is raised by scholarships that do not free up funds for consumption or savings, but for these scholarships a deferral charge may be more readily supported. Scholarships are selectively granted, and it seems clear that the recipient is receiving an up-front benefit relative to the non-scholarship student who pays tuition for education at the same school with after-tax dollars. While the economic value of the scholarship may not be clear enough to impose tax up front, it may be appropriate to take account of the subsidy later and to relate it back to the time of the grant through a deferral charge if it does indeed prove to be of value by producing future market earnings. However, a deferral charge in cases of need-based scholarships may be forgone as a policy matter. See *infra* text accompanying notes 397-402.

The value from which a deferral charge is derived may not be as much as the difference between the net out-of-pocket cost paid by the scholarship student and the "list price" tuition paid by an affluent student, and that value might even be varied depending on future earnings. See *supra* note 168. However, if the scholarship is awarded to an affluent student for reasons other than need, one could then make the judgment that the value of the scholarship should be the full amount of the grant based on a "list price" tuition. Indeed, in that case it might be simplest to tax the scholarship up front. In any event, *college* scholarships to more affluent students, where one would expect the tuition bill to be paid by parents, may be an appropriate case for up-front taxation. See *infra* text accompanying notes 402-04.

393. See *supra* note 392. Of course, tuition subsidies funded by state taxes, alumni contributions, and other sources are also selective if we view the situation more globally; students at one school will receive a different subsidy than students at another school. This is the comparison that troubled Crane. See *supra* text accompanying notes 368-81. However, it seems more difficult in that larger context than in the case of a single institution to find that similarly-situated students are receiving the same education for a different net cost. The stated tuitions, the institutions' costs, and perhaps some ultimate valuation of the education will all vary from school to school.

394. See *supra* text accompanying notes 226-339.

low to periods when income and brackets would be higher (and no cost recovery deduction would be available for the scholarship amount that already has effectively been expensed). Indeed, the deferral of income effected by the scholarship exclusion might actually increase a student's tax burden relative to up-front tax at a time of low rates, and thus we should consider permitting an election to pay tax up front on a scholarship grant.

The effect of the progressive rate structure deserves further study to determine the degree to which the "corrective" provided by the rate structure may justify dispensing with a separate deferral charge. Obviously, a progressive rate structure will not provide an adequate solution in the case of students (or parents, where relevant)³⁹⁵ who are in high tax brackets at the time a scholarship is obtained. Furthermore, because the benefit enjoyed by the scholarship student relative to the non-scholarship student across the dormitory hall seems even clearer than the more speculative types of human capital accumulations discussed previously, a specific deferral charge directed to the problem may be required at least for some classes of taxpayers.

To the extent a deferral charge is required, it would be possible to factor into the determination of such a charge the relevant tax rates at the time of scholarship grants and at the time of the later production of market earnings. An income tax schedule reminiscent of the old Schedule G for income averaging³⁹⁶ might be used. It would seek, on the basis of some assumptions about incremental earnings from education, to determine whether a surcharge was needed and the amount of such a surcharge or whether the increase in tax rates filled the bill. While the concept may suggest rather frightening complexity, in practical application it could be rather simple. The deferral charge could be explained to taxpayers as simply a type of interest charge for what was previously a loan from the government of uncollected tax on the scholarship. That interest charge could vary in accordance with future earnings in a manner reminiscent of the many proposals that have been made for education loans with interest contingent on earnings.

A deferral charge may not be required in certain cases of need-

395. See *infra* notes 402-04 and accompanying text.

396. Schedule G (Form 1040) 1986 (providing income averaging for use when the current year's income is greater than the average of the previous three years). See also I.R.C. Publication 506 (Rev. Nov. 1986) (explaining how to complete Schedule G). I.R.C. §§ 1301-1305 (repealed 1986).

based scholarships, however. First, we may presume that in such a case, the income level of the scholarship student (or parent, where relevant³⁹⁷) will be low so that the progressive rate structure is likely to provide some compensation. Second, and more fundamentally, even where the progressive rate structure would not impose any surcharge, a deferral charge could be forgone as a normative matter.

Again, the key is to focus on what is at stake in a deferral resulting from the effective expensing of an amount, here a scholarship grant, that would otherwise have been recoverable through cost recovery deductions over time. That benefit to the taxpayer, and cost to the government, derives from the effective exemption of investment income earned on the after-tax value of the amount excluded. However, characterization of such amount as a benefit and cost assumes that the scholarship has freed funds that would otherwise be spent on schooling (or an alternate investment) so that they may now be devoted to personal consumption or investment.³⁹⁸

For example, an investor who can expense an investment of \$10,000 is thus able to retain and invest the amount that would otherwise be paid in tax on \$10,000 of income. In the case of a need-based scholarship, however, the recipient who has no funds to invest in education or otherwise is simply enabled to obtain education otherwise beyond reach. There is no ability on the part of such a recipient to gain from a difference in taxation of investment income. While the recipient may be viewed as holding (or, perhaps more accurately, not having to borrow) an amount that could have been exacted as tax on the scholarship, that use does not seem relevant where funds were not available for investment in the education or an alternative.

In short, we may normally think of deferral as involving a diversion of an investment return from the government to the individual. In the case of the need-based scholarship, however, the

397. See *infra* text accompanying notes 402-04 and *supra* note 66.

398. One of the conditions for the Cary Brown thesis that an investment made on a tax-deductible basis — e.g., through expensing of the investment — will produce a return equivalent to a tax-exempt return on the after-tax investment the investor would alternatively have made is that the investor be able to invest his tax savings from the deduction in a comparable investment. See Johnson, *supra* note 187, at 1032; Warren, *supra* note 187, at 500. In the case of the need-based scholarship, there may be no “investment” that is growing and that can be used to make a claim on scarce resources except at such later time as the scholarship-financed education is converted into earnings in the workforce.

underlying assumption of an amount that *should* be in the hands of the government may be unfounded. Moreover, even when there is some degree of diversion in the sense that the recipient (or parent) may, through a scholarship, have the ability to make alternative use of funds that otherwise would have been spent on education, the amount at stake is likely to be *de minimis*.

We might think of the government "loan" implicit in the deferral resulting from the scholarship exclusion as providing a temporary subsistence level of capital to students (and their families) who would not have enough capital or borrowing power to afford the education in question or to generate investment income producing material tax. This support could be analogized to the subsistence levels of food, clothing, and the like that we effectively leave outside of the income tax base through allowances such as the standard deductions or personal exemptions, which may be viewed as a "refinement" in the search for an ideal income tax.³⁹⁹ We are not providing the education value itself as a matter of subsistence, but rather we are temporarily providing adequate capital to overcome financial barriers to entry.⁴⁰⁰

399. Cf. Andrews, *supra* note 84, at 330 (suggesting that the appropriate role of personal deductions is to adjust income based on expenditures made which do not result in real consumption or accumulation); Koppelman, *supra* note 127, at 685-87 (discussing rationales for deductions of expenditures that do not provide a direct benefit to the taxpayer or are in some sense involuntary).

400. In some cases, a scholarship itself might be treated as providing a base of human capital that others may already have obtained without investment of after-tax income. Consider, for example, a scholarship for a period of special study to enable a needy student to go to college, such as a year of private preparatory school for a student with a deficient educational background. That year at prep school may be viewed as not involving consumption or accumulation representing an accession to wealth above a societal baseline. (Compare that student with the well-educated suburban high school student who obtains a publicly-financed secondary education at no out-of-pocket cost. See *supra* note 49.) Just as medical benefits may be viewed not as personal consumption but as a means of maintaining or restoring an individual's human capital base, and just as a tort recovery for an accident victim may be excluded as simply making an individual "whole," I.R.C. § 104, an individual might be brought up to an education norm through government or private assistance without finding either personal consumption or accumulation.

Crane argues more generally in defense of the present scholarship exclusion that a needy student is provided with a type of economic and cultural endowment that others may enjoy on a tax-free basis. With regard to higher education, however, she encounters the problem that non-scholarship students often do obtain their education with after-tax dollars. Crane, *supra* note 9, at 77-78. Crane recognizes that "[t]he plight of the student who earns all of her own tuition costs remains problematic no matter how one resolves these issues." *Id.* at 79. She concludes, however, that such student is "not treated unfairly" if the scholarships are distributed on the basis of a "needs test" that "accurately takes the student's ability to earn into account." *Id.* She adds that the disparity between transfer

In contrast to the minimal amount of private investment return at stake, there is foreseeably a substantial public return from the greater development of human capital from education made possible with scholarships. That return to the public does not warrant a surrogate for an up-front tax on the individual student. Indeed, it may so overshadow the private return⁴⁰¹ that it provides additional grounds for not imposing a deferral charge on the student.⁴⁰²

In short, if we adopt a comprehensive system of education cost recovery, the scholarship exclusion may be maintained as one means of providing cost recovery. Because the expensing effected through the scholarship exclusion is a faster form of cost recovery than even the accelerated method discussed in Part (II)(C)(1) above, we may impose a deferral charge (or rely on the progressive rate structure to do so in appropriate circumstances) to compensate for the special level of acceleration and resulting deferral

payment recipient (non-taxable) and wage-earner (taxable) frequently exists under the tax law, and would exist even if the transfer payment were taxable but exemption levels were set to limit the tax on the needy. *Id.* at 79 n.47.

I agree that scholarships qualifying for special tax treatment should generally meet a needs test, but a pure exemption in a world with no general cost recovery is questionable because the amount of tax dollars saved on a tax-free scholarship can be very large relative to the tax paid by the wage-earner funding her own education. However, if the scholarship exclusion is part of a unified cost recovery system, then the benefit from the scholarship is a deferral of tax on investment income that may be justified normatively in the case of the needy recipient or family.

401. One might argue that a merit scholarship for a brilliant non-needy student could also be justified on grounds of the return to the public and perhaps the benefit to the university in terms of prestige and future resources. However, a substantial private return is to be expected as well, and public or university monies may be presumed unnecessary to induce the non-needy student and her family to obtain the education. The private benefit from a scholarship in these cases should be accounted for in order to provide reasonable parity with the case of tuition paid with after-tax dollars. Thus, a deferral charge would be appropriate.

402. *Cf.* Halperin, *supra* note 186, at 528-30 (questioning whether the return accruing on an "asset" held by the public in the form of an obligation of a nuclear power plant to provide clean-up of waste is a return that should be taxed to anyone).

Of course, many people would undoubtedly support the expensing provided by the scholarship exclusion of § 117 as a tax expenditure. Because the exclusion assists the less fortunate in obtaining education and thereby becoming citizens who will be more productive, better informed, and in the long run less in need of future government assistance, it should rank high on anyone's list of tax expenditures. (It is doubtful that all of the others will soon be purged from the tax law.) Moreover, because the scholarship exclusion may be viewed as resulting in expensing of business-related education, such treatment may be viewed as consistent, in terms of both equity and efficiency, with provisions for expensing or rapid depreciation of physical capital, I.R.C. §§ 168, 179, current expensing of research and development expenditures, *id.* § 174, and expensing of education or on-the-job training paid for by employers, *id.* §§ 127, 162, and Treas. Reg. § 1.162-5.

of tax. However, we may choose not to impose such a charge in certain cases of need-based scholarships.

Two important reservations about this approach should be noted. Both relate to scholarships for *college*. First, college costs are frequently paid by parents. To the extent a scholarship is received, it may be a parent who obtains an accession to wealth; the exclusion from income may thus accrue to the parent at the parent's tax rate. The parent is constructively receiving cash income and "gifting" that cash to the student, who then "purchases" the education.

By deferring inclusion of taxable income at the point of the accession to the parent's wealth and then effecting the income inclusion in the hands of the (former) student when market earnings are produced with the education, the effort to devise an appropriate deferral charge becomes more complex. The progressive rate structure is no longer likely to be helpful in many such cases. The usual progression from a lower bracket to higher bracket may be reversed in that the up-front collection from a higher bracket parent may have been forgone and replaced with a later collection from a lower-bracket young worker.

In devising an actual deferral charge to be imposed on the earnings of the former student, the taxpayer and the government would need to have knowledge of and account for the tax rate of the parent at the time of the scholarship exclusion. To avoid this kind of complexity, consideration might be given to repealing the section 117 exclusion in cases of college scholarships where a parent is above a certain income level and taxing the scholarship grant at the parent's rate. A rule similar to the existing "kiddie tax"⁴⁰³ on investment income of children under age fourteen might be developed. Obviously, this would be a radical change, reflecting a presumption about parental assistance for college in certain cases.⁴⁰⁴ An alternative would be to offer an election to parent and student to avoid this result on the condition that the parent provide the student and the government with the necessary information to compute an appropriate deferral charge later.

The second reservation concerns the degree to which costs of college might be viewed as expended for personal consump-

403. I.R.C. § 1(i).

404. I am making a different presumption about graduate or professional school where parents are less likely to take or have responsibility for paying tuition.

tion.⁴⁰⁵ If personal consumption is financed with a scholarship, and thus effectively expensed, there will be a clear tax benefit relative to purchased costs that are not subject to cost recovery. A simple solution would be to tailor section 117 so that the exclusion does not extend to whatever arbitrary percentage of college costs might be treated as personal rather than career-related, just as the existing section 117 does not extend to room and board charges.

A related and more difficult problem, but one of possibly less magnitude, is presented by the prospect that college costs may never be reflected in the production of future market earnings of some students. With a general cost recovery system for purchased tuition, this problem is easily handled because we can limit cost recovery deductions to future market income reasonably related to the education.⁴⁰⁶ With a scholarship exclusion, however, the cost recovery would be immediate, occurring prior to the point of entry into a trade or business. This may be a further reason to consider inclusion of college scholarships in income,⁴⁰⁷ at least for taxpayers from upper-income families.⁴⁰⁸ As to lower-income taxpayers,

405. See *supra* text accompanying notes 34-53.

406. See *supra* text accompanying notes 315-16, 344-45.

407. But see Crane, *supra* note 9, at 106 (arguing that the scholarship exclusion is more defensible for college scholarships, which may provide a common human capital baseline, than for professional and other graduate education that may produce a more direct economic benefit for the individual student). Crane recognizes that because professional education tuition is more likely to be spent in anticipation of "much more predictable" future earnings, the lack of cost recovery deductions is "more likely to be erroneous;" however, she contends that the same potential for future earnings makes an exemption for educational assistance at this level less equitable. *Id.*

Crane assumed no general cost recovery. I agree that the scholarship exclusion, viewed in isolation, is less justified for professional and graduate education in terms of human capital "baselining" than it is for college education (although the baselining rationale only makes sense for needy college students). However, under the current law denying cost recovery, the scholarship exclusion may be *more* justified in the professional and graduate school context as a means of providing at least one form of cost recovery for business expenditures. Because the business grounds for cost recovery with respect to professional and graduate school expenditures are clearer than they are with respect to college, the professional/graduate school expenses present a stronger case for viewing the scholarship exclusion as a means of cost recovery. Thus, the disparity between the scholarship and non-scholarship students in that context seems all the more troubling. The solution, however, is not to eliminate all cost recovery in the professional/graduate school context by removing the scholarship exclusion, but rather to provide cost recovery deductions for education that gives rise to human capital for one's career and to limit the expensing involved in the scholarship exclusion to needy cases that warrant it.

408. Alternatively, a recapture rule could be developed.

An interesting problem is presented by the case of a former scholarship student who becomes a "non-working" (in the marketplace) spouse. Can the college education of that

it may be determined that the overall societal benefits from widening the availability of college education warrant some risk of a personal benefit in individual cases.

In sum, the current blanket exclusion for scholarships in section 117 is difficult to justify, other than as a tax expenditure, given the absence of a general education cost recovery system. That tax expenditure is distributed unfairly relative to need, even if most scholarships are need-based.⁴⁰⁹ Non-need-based scholarships should be taxed. If a general cost recovery system were adopted, however, the scholarship exclusion and a system of cost recovery could operate in tandem, if not harmony, with the scholarship exclusion providing one particular and quick form of cost recovery. In that event, up-front taxation would not generally be required because a deferral charge could be imposed in cases where the deferral benefit from the expensing of the scholarship (relative to what should otherwise be accelerated depreciation) is considered to provide an undue benefit to certain students (and parents).

However, for need-based scholarships, no deferral charge may be required. The minimal level of investment income at stake limits opportunities for abuse, and the scholarships will provide a temporary base of capital and the resulting opportunity for an education that will be accounted for over time through reduced cost recovery deductions. The scholarship exclusion as a means of tax deferral within a general system of cost recovery can be justified in need cases as a refinement to the income tax responding to deficiencies in the opportunity to obtain human capital; it need not be characterized purely as a tax expenditure.⁴¹⁰

spouse be said to help produce the market earnings of the "working" spouse reported on a joint return so that some form of cost recovery is appropriate and a deferral charge can be used, to the extent necessary, to deal with the timing issue discussed above? That would be a stretch. On the other hand, it is not unlikely that this spouse will eventually use a college education in later work. At what point, then, is it fair to treat the college costs of the non-working spouse as not having been used in a career?

409. The scholarship exclusion provides a substantial tax break to selective categories of students who happen to qualify, for various reasons apart from need, for scholarships and to enjoy the opportunity to attend an educational institution where such an advantage may be bestowed. See, e.g., William Celis 3d, *Colleges, Seeking More Money, Try to Broaden Restricted Scholarships*, N.Y. TIMES, Sept. 11, 1991, at B11 (discussing the wide variety of scholarships designed for restricted groups of individuals based on factors other than need). Certainly, such a benefit should be granted more carefully than under current law — for example, by limiting the exclusion on a needs basis.

410. It should be noted that while the scholarship exclusion has very different implications depending on whether it is operating in conjunction with a system of education cost recovery, both (1) the case for ignoring a deferral charge and treating the exclusion as a

The expensing of out-of-pocket costs should be considered for needy students who fit a similar profile to the needy scholarship recipient but who are unable to qualify for scholarships (or are not lucky enough to attend an institution with the same supply of scholarship funds).⁴¹¹

b. Loan Assistance

By creating a model to achieve normatively sound income tax treatment of human capital accumulations and the education costs of producing one form of human capital, the treatment of financial assistance in connection with education loans may be seen as a unified part of a tapestry rather than as part of an inconsistent mix of provisions.

Under current law, education loans with below-market interest rates apparently do not trigger imputation of income under section 7872.⁴¹² Thus, the subsidized loan provides, in effect, an accession to wealth to the student in the form of the interest subsidy with a constructive offsetting deduction as if the student paid interest on a deductible basis. This effect is inconsistent with the general disallowance of deductibility for education loan interest, and it means that interest is effectively deductible to the extent it is subsidized but nondeductible to the extent it is actually charged. The result may make sense as a tax expenditure, but it is not clear that the recipients of the benefit uniformly represent those most in need of government assistance.

With a proper system of cost recovery, including interest de-

refinement of income in the event a general cost recovery system were implemented and (2) the case for justifying the scholarship exclusion as a "tax expenditure" under existing law call for limiting such treatment to need-based scholarships. Cf. Alan L. Feld, *Abortion to Aging: Problems of Definition in the Medical Expense Tax Deduction*, 58 B. U. L. REV. 165, 166-67 (1978) (arguing that whether the medical expense deduction is viewed as a tax expenditure or as an adjustment to net income to reflect ability to pay after suffering involuntary expenses for medical care, the medical expense deduction should not cover "personal frolics" but only expenditures to restore health after an emergency).

411. See Andrews, *supra* note 84, at 380 n.126 (proposing that the scholarship exclusion be replaced with a deduction which might be confined to needy students). Even apart from a normative justification, such rapid recovery for education makes sense when one considers the expensing and other accelerated recovery permitted for tangible property and research and development expenditures. See *supra* note 332.

412. See generally Crane, *supra* note 9, at 93 n.74; Philipps & Hatfield, *supra* note 87, at 277-82. The proposed regulations under § 7872 do not, at this time, seem to contemplate imputation of interest income in the case of subsidized education loans. See Prop. Reg. § 1.7872-4(e), (f).

ductibility once a student embarks on a career, this treatment of interest subsidies is less troubling. Because the failure to impute interest is the equivalent of including the subsidy in income and then allowing an offsetting interest deduction, the effect is relatively consistent with my proposed system of cost recovery that precludes the use of an interest deduction to shelter unrelated income but recognizes the interest cost as an appropriate deduction in generating net income from a career.

Cancellation or reduction of student loans, for example when a law school graduate goes into public interest law, appears generally to be treated under current law as fully taxable income.⁴¹³ This result is in sharp disparity with the exclusion for scholarships or loan subsidies. Again, however, with a proper system of cost recovery the treatment is more rational and less disturbing. Including the cancellation of indebtedness in income reflects the reduction in education costs resulting from the funding by another party. By including that amount in income, however, the student should be treated as having invested it in her human capital and, thus, qualifying for cost recovery of such amount as she earns income.

The net cost to the student should simply be an acceleration of income, and if an appropriate deferral charge is imposed on the recipient of a non-need-based scholarship, the treatment of the student with a "taxable" canceled loan and the student with an "excluded" scholarship should come into equilibrium. We might decide that the needy student who has income from loan cancellation should be able to expense that cost rather than spread it under a general cost recovery system, in order to provide greater parity between scholarship and non-scholarship students in need.⁴¹⁴

Further, the exclusion in section 108(f) for cancellation of education loans to encourage students to take jobs — generally lower-paying — in certain worthy occupations or geographic areas (e.g., public interest jobs or positions in economically distressed areas)⁴¹⁵ is less disturbing taxwise if it simply provides a faster means of cost recovery. The tax bracket of such students in early years may be expected to be lower, so that the cost of what is

413. See Crane, *supra* note 9, at 93 n.74; Philipps & Hatfield, *supra* note 87, at 267. A limited exclusion applies under I.R.C. § 108(f) for government loans to encourage work in certain professions, and Congress is considering expanding that exclusion to encompass loans by educational institutions as well. See *supra* note 89.

414. See *supra* notes 397-402, 410-11 and accompanying text.

415. See *supra* notes 89 and 413.

effectively up-front expensing may be offset by higher bracket earnings later in a career that are not offset by actual cost recovery deductions.

III. CONCLUSION

This article has developed a comprehensive theory for the taxation of human capital accumulations from education and recovery of human capital costs, a theory that focuses on issues of timing.

Human capital accumulations are currently taxed when manifested in market earnings that enable the individual to command social resources — goods and services — through claims exercised in current consumption or, alternatively, the saving of such claims. That treatment is consistent with one normative definition of the tax base, in scope and timing, under an ideal income tax. An alternative approach would seek to achieve the effect of “up-front” taxation of certain human capital accumulations from education, e.g., as measured by forgone earnings. That approach may in certain cases require a deferral charge to account for the “delay” that results when tax is not imposed until the human capital is converted into market earnings.

Under either of these approaches, there is no rational basis for the failure of current law to provide a system of cost recovery for the tuition and interest charges incurred with respect to many levels and types of education that will be largely or entirely devoted to the production of earnings in a career. Further, capital costs such as tuition should be recoverable under an “accelerated” method as a normative matter; a slower form of cost recovery would effectively tax the increase in present value of future earnings that results simply from the passage of time, a result that is in radical contrast to the general taxation of earned income attributable to other human capital.

The proper method of cost recovery for education expenditures directly affects the determination of any deferral perceived in the taxation of human capital accumulations from education not purchased with after-tax tuition dollars. An accelerated method of recovery will imply a shorter period of deferral and, thus, a lesser “problem” for which a deferral charge might be imposed.

Finally, a comprehensive approach to human capital taxation that includes a general education cost recovery system will rationalize the treatment under current law of scholarships and education

loan assistance. The scholarship exclusion no longer would provide an exceptional tax benefit to a limited class of students, but rather it would provide simply a more accelerated form of cost recovery than would be generally available with respect to education expenditures. So evaluated, an adjustment may be made for that timing difference through a deferral charge. In cases of need-based scholarships, such an adjustment might be forgone as a normative matter. Implementation of a sensible cost recovery system would also permit the treatment of education loan assistance to become a rational and harmonious part of the overall tax treatment of human capital development. A tax-free interest subsidy would represent a form of deductible interest charge. Cancellation of student loans, whether taxable or made excludible, would not produce sharply disparate results over time when compared with either scholarships or paid tuition charges.

