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NOTE

MEETING EDUCATIONAL CHALLENGES IN THE INFORMATION AGE: TAX INCENTIVES TO ENCOURAGE DONATIONS OF COMPUTER EQUIPMENT TO ELEMENTARY AND SECONDARY SCHOOLS

I. INTRODUCTION

"The so-called information revolution, driven by rapid advances in communication and computer technology, is profoundly affecting American education. It is changing the nature of what needs to be learned, who needs to learn it, who will provide it, and how it will be provided for and paid for." 1 In particular, the growing use of information technology throughout society creates major new demands for education and training with computers.

Leaders in the higher education community and information industries point out "that the computer industry [has been] the fastest growing segment of our economy in the 1980's ..." 2 and that "[d]uring this last generation ... nine out of every ten new jobs created have been in the information and service areas." 3 If "[b]y 1990, forty to fifty percent of all American workers will be making use of electronic terminal

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equipment, . . . students must be prepared to fill these jobs.”4 It is argued that “[w]e can predict the skills that an individual will need to succeed. Computer literacy will become prerequisite for employment in numerous jobs.”5 Furthermore, students “fortunate enough to attend a school where there is access to computers, . . . will be better prepared for employment and educational opportunities than those who have not had computer training.”6

Many of the information industries point out that America is rapidly falling behind in high-technology due to a shortage of individuals graduating from American schools with electrical and computer skills. “The United States has dropped to fourth in scientific literacy, behind Russia, Germany and Japan. Russia is graduating three times as many engineers as America is. Japan is graduating more engineers than we are, yet their population is half of the U.S.”7 Indeed, the Office of Technology Assessment “found that trends in automation and the growth of the information sector of the economy will probably present the United States with severe manpower training problems over the next decade.”8

While the electronics and information technology hold the promise of a large portion of American economic growth in the next decade, “this growth . . . may be difficult to achieve, if we are unable to attain sufficient numbers of engineering graduates from our universities.”9 “We must produce people who are familiar with and can utilize the technology that dominates our society. We must have educational institutions that have the equipment that the students will see when they go out for jobs.”10

In an effort to act on these concerns, and to prevent the United States from falling farther behind in scientific literacy, high-tech industry leaders and the higher education community are calling for the rapid influx of computer technology into elementary and secondary schools. They argue that training must begin at early stages of the educational process to prepare young people for the “new era of technology and global competition” since “K-12 students are future employees. Industry's and our nation’s competitiveness will depend on them in the

4. Id. at 106 (statement of Fern Burch, Staff Member Lawrence Hall of Science, U.C. Berkeley).
5. Joint Hearings, supra note 2, at 213 (statement of Jobs).
6. House Hearing, supra note 3, at 66 (statement of Barbara Bowen, Director, Apple Education Foundation; Ms. Bowen was accompanied by Michael D. Rashkin, Director of Taxes, Apple Computer, Inc.).
7. Id. at 206.
8. OTA REPORT, supra note 1, at 20.
10. Joint Hearings, supra note 2, at 205 (statement of David H. Fish, Special Projects Director, San Diego City Schools, San Diego, CA).
very near future."

"Assuming that Congress decides there is a significant need for federal action to address these issues, there are a number of possible actions it could take." The options include both direct and indirect forms of congressional intervention focused on moving the educational system toward a high-tech orientation appropriate for the "Information Age." Forms of direct intervention include: (1) tax incentives to encourage charitable contributions of computers and other "information technology" to schools; (2) direct funding of grant programs for the acquisition of computer equipment; (3) subsidization of software development and teacher training programs; and, (4) commencement of other support activities which are aimed at moving computer technology into a more central role in the educational system.

Forms of indirect intervention include: support for research and development of educational technology in both the public and private sectors; elimination of unintended regulatory barriers which are not specifically directed at education but which somehow "create a barrier to the effective application of education technology"; and adoption of a "General Education Policy" which encourages development of more high-technology equipment uses in educational areas.

This Note focuses on the two forms of direct congressional intervention which possess the most potential to bring new computer equipment into schools: tax incentives to encourage corporate charitable donations of computer systems and direct grants to fund the purchase of computer systems. The Note discusses the advantages and disadvantages of implementing these methods and concludes that tax incentives encouraging donations are preferable because they potentially lower transactional costs and equipment costs. However, the tax-incentive method should be supplemented by a system of grants whenever it fails to solicit all equipment needed.

II. TAX INCENTIVES ENCOURAGING CHARITABLE DEDUCTIONS

The most controversial mechanism used to bring computer equipment into schools is the tax incentive method discussed above. Congress supported this method in 1981, and amended the Internal Revenue Code accordingly. In particular, Congress approved section

11. House Hearing, supra note 3, at 45 (statement of Bossen).
12. OTA REPORT, supra note 1, at 20.
13. Id. at 20-21.
14. Id. at 21-22.
170(e)(4) which allows for special treatment of corporate charitable contributions of newly constructed scientific equipment to colleges and universities,\textsuperscript{16} and section 170(e)(3) which provides for special treatment of corporate charitable contributions of property to be used solely for care of the needy, the ill, or infants.\textsuperscript{17}

Congress seemed to lose enthusiasm for the tax incentive position between 1981 and 1985. During this period, Congress failed to pass several bills which would have provided for the same special treatment of corporate charitable contributions of computer equipment to elementary and secondary schools as provided in sections 170(e)(3) and (4).\textsuperscript{18} Congress’ failure to pass such bills did not necessarily evidence that Congress was completely opposed to the idea. In fact, the House of Representatives did pass such a bill, but the Senate let it die without any real indication of its stance on the issue.\textsuperscript{19}

The Reagan Administration strongly opposed tax-based incentives to encourage the donation of computers to schools. In particular, the Treasury Department criticized proposals that “would allocate resources to a particular form of education at a time of general fiscal restraint without competing against other worthy programs for scarce resources.”\textsuperscript{20} Furthermore, the Treasury Department did not seem convinced that the need for computer technology in schools was sufficiently urgent to justify special treatment for donations of such equipment. They saw “no reason why the gift of computers to a school, for example, should be given better treatment than gifts of books to educational institutions.”\textsuperscript{21} The Treasury Department asserted the “slippery slope” argument against the special treatment, reasoning that “once you start down this road, there is another case down the road that will require the same distinction.”\textsuperscript{22}

Several opponents sharply criticized the views of the Reagan Administration on the subject of education in general. For example, Congresswoman Sala Burton of California stated that “the Administration, while calling for meaningful improvements in the quality of American education, has, for three straight years, proposed deep cuts in federal

\textsuperscript{16} I.R.C. § 170(e)(4) (CCH 1988).
\textsuperscript{17} Id. § 170(e)(3).
\textsuperscript{20} Joint Hearings, supra note 2, at 44 (statement of Hon. John E. Chapoton, Assistant Secretary for Tax Policy, U.S. Department of Treasury).
\textsuperscript{21} Id. at 45.
\textsuperscript{22} Chegwidden, Treasury Opposes Liberalized Charitable Contributions Rules, 15 TAX NOTES 1009 (1982).
funding of educational programs." Critics argued that America's decreasing ability to compete in high-tech industry markets and general public scientific literacy will not be reversed if the Administration continues to deny the urgent need to bring computer equipment and training into schools. Furthermore, Congress "already started down the road" with its 1981 amendments providing for special deductions for donations of scientific equipment to colleges or universities.

It is too early to tell what the Bush Administration's position will be.

A. BALANCE OF DONATION COSTS BETWEEN DONORS AND GOVERNMENT

The cost of the tax-based incentive method seems to be the main concern of Congress and past administrations. While proponents of prior legislation have argued that the special tax treatment of computer equipment donations would serve "to help the children and the schools by providing them with up-to-date equipment which many schools simply can't afford to purchase themselves"; opponents correctly maintain that when the government gives favorable treatment to serve a particular purpose, it amounts to a government subsidy that is administered through the tax system.

Acceptance of the subsidy argument poses another question, How much of a deduction would stimulate voluntary contributions without overburdening the federal budget?

Past proposals contained a wide range of deduction provisions. Debates about past proposals centered around whether the government would be paying too high a percentage of the cost of the donated computer equipment to make it worthwhile. What everyone wanted to know was, How small a share could the government absorb and still effectively stimulate the needed contributions? In determining what would stimulate the donors, it became apparent that the government would have to gauge the "appropriate" deduction percentage based on two factors: (1) how much donors would think they could benefit by making contributions, and (2) the costs donors would incur by contributing. Unfortunately, answers to these questions were not forthcoming. Instead, one could only speculate as to the proper balance of these fac-

24. Chegwidden, supra note 22.
tors by considering a number of policy arguments applied to specific proposals. Such policy arguments are considered below.

Proposals to create special tax incentives for charitable donations of computer equipment to schools have centered around section 170(e) of the Code. Section 170(e) presently provides that the amount of charitable deduction allowed for a contribution of ordinary-income property (such as donation of inventory by a manufacturer) shall be limited to the donor's basis in the property. That is, the general principle for contributions to charities is that the donor may deduct the amount of cash or fair market value of the property donated—reduced by the amount of any ordinary income which the donor would have realized had the property been sold for the fair market value (i.e., reduced by the difference between the basis of the donated property and its fair market value). Thus, the effect of this provision is to limit the deduction that the donor of ordinary income property may take to the amount of his basis in the property.

Sections 170(e)(3) and (4) provide two exceptions to this general principle of section 170(e). Section 170(e)(3) is entitled "Special rule for certain contributions of inventory and other property," and provides that corporate donations of property "used by the donee solely for the care of the ill, the needy, or infants" are subject to a more favorable reduction rule. In the case of such a contribution, the donor is entitled to a deduction of his basis in the property plus half the difference between the basis and the property's fair market value to the amount of 200% of the basis.

Section 170(e)(4) treats "corporate donations of newly constructed scientific equipment to a college or university to be used for research (or research training) in the United States in the physical or biological sciences" in the same manner as the 170(e)(3) donations. Amended by the Economic Recovery Tax Act of 1981, section 170(e)(4) demonstrates that Congress' previous targeting of the area of high-tech training and development was prompted by a special concern.

Following the lead of section 170(e)(4), tax-incentive proposals between 1981 and 1983 focused on extending similar special treatment to charitable contributions of computers to schools. Congress introduced

28. Id.
29. Id.
30. Id. § 170(e)(3).
31. Id.
32. Joint Hearings, supra note 2, at 11.
34. See supra note 16.
various bills providing for a variety of different percentage deductions above the donor's basis in the contributed property. None passed both houses of Congress. The fact that none of these bills was enacted does not negate the need for such a law today. Nor does it evidence that Congress opposes the enactment of such a law, especially if the law undeniably benefits American education at acceptable costs to the government. The problems facing American education discussed in the introduction of this Note are not disappearing as a result of present actions taken by Congress. Thus, while a tax-based incentive plan should not be the only strategy employed to address American educational needs, it should not be overlooked simply because original proposals seemed too costly to the government and too beneficial to the computer industry.

The challenge is to formulate a proposal that addresses the concerns of critics of the originally proposed tax-based incentive plans while providing adequate stimulus to donors of computer equipment. Many factors influence the accomplishment of this challenge. The key factors are: the cost of computer equipment and the need to find an entity to bear this cost. Unfortunately, it is very difficult to determine the optimal share of the cost to be born by the government and by the computer donor.

In the hearings for the 1981-83 proposals, many argued about the percentage above the donor's basis in the property that would be appropriate to deduct. The original “Apple Bill” simply extended the already existing exceptions of sections 170(e)(3) and (4) to contributions of computers to schools (the donor could deduct up to 200% of the basis in the property from gross income). Thus, if a computer cost $100 to manufacture, and the fair market value was $300, then the donor could deduct 200% (or $200) from gross income. Assuming the 46% tax bracket of 1982, the effect of the deduction would be to reduce the manufacturer's tax liability by 46% of $200, or $92. Thus, in effect, the government was paying 92% of the out-of-pocket costs of the computer.

The main criticism of the “Apple Bill” was that “in many cases, the value of the tax benefit conferred by the increased charitable deduction . . . would approximately equal the taxpayer's cost of the contributed equipment.” Senator Robert Dole remarked that

[a]s previously drafted, . . . the Treasury, in essence, buys inventory at cost or at 92% of the cost at least. The “contribution” made by the

36. H.R. 5573, supra note 18.
38. Chegwidden, supra note 22 (quoting Asst. Secretary for Tax Policy, John E. Chapoton).
manufacturer is negligible. Given the future benefits the manufacturer would receive from his 'contribution,' I think if we do anything at all with this bill, that we should scrutinize this twice basis limitation to see whether a lower limit might not make the contribution less of a one-sided gift.  

However, Dole conceded that "on its face, it seems to be a great idea to encourage manufacturers to give computers to schools, even though the manufacturers may derive substantial benefits from service contracts, future sales, and so on." Dole cautioned that the Treasury and the manufacturer must share the burden in order to avoid a situation where the government is, in effect, purchasing the equipment at cost.

Several other proposals reduce the amount of the government "charitable tax deduction" subsidy by employing lower percentages. House Report number 2417, a proposal made in 1983, would have permitted donors to take a deduction of 125% of cost, provided they also supplied software and trained teachers to use the donated equipment. Many manufacturers, including Tandy/Radio Shack, supported this, now deficient, bill. In its 1982 report, the Senate Committee on Finance advocated a 150% deduction of cost.

In the meantime, Apple Computer, Inc. has contended that, even with a 200% of cost deduction, its offer to supply each of America's over 10,000 schools with one computer would cost the company approximately $100 per computer, for an estimated total of $10,000,000. Apple claimed this figure represented an estimated 20% of the company's predicted profits in the years 1982 and 1983. Apple further argued that it was willing to supply computers to the government at below cost, while most profit seeking companies never sell anything below cost. Apple's Chairman of the Board, Steven Jobs, stated that the net effect is to provide a sharing of costs between government and industry, with government bearing most of the direct costs and industry bearing most of the indirect costs. The government costs, however, are more than compensated by the fact that the value of the equipment received by schools will by far exceed the revenue loss to

40. Id.
41. Id.
42. House Hearing, supra note 3, at 113 (statement of Tandy Corp./Radio Shack in discussion of H.R. 2417, supra note 17).
43. Id.
45. Joint Hearings, supra note 2, at 218 (letter from Jobs to Dole).
46. Id.
47. Id.
The indirect costs referred to by Jobs are for administration of the program, distribution, warranty, and so forth. These are costs that the government could avoid if it acquired the equipment through a tax-based incentive program, rather than a direct expenditure program. Because the costs to the donor are substantial, even with a 200% of cost deduction, it is evident that lowering the percentage would definitely have a negative impact on the number of computers donated.

Still, all of Apple's arguments refer only to Apple's short-term costs in making contributions. Many criticize the 200% proposal because it appears that Apple would bear a very small portion of actual costs of the computer equipment but would reap substantial long-term gains in the computer market. Many critics express concern that, under this system of contributions, “the donor corporations would determine the recipients of the equipment” by targeting “schools in affluent neighborhoods where they might expect families to purchase personal computers for home use.” In this regard, one of the key purposes of the proposal—to redress computer training inequities between students in poor school districts and students in wealthy school districts—could potentially be subverted to serve the long-term promotional interests of computer manufacturers. Thus, critics argue that the “indirect” costs to donors of administering a contributions program are substantially outweighed by the benefit of being able to manipulate the donations to serve future market interests.

One question remains, At what point is the proper balance of cost struck between government and industry? Manufacturing the equipment is clearly not the only cost. Donors bear administrative costs as well. On the other hand, donors benefit in terms of future market shares. This situation is further complicated by the fact that corporations are in a lower, 34%, tax bracket. These tax cuts increase the net price of giving and tend to reduce gifts . . . . Thus, the lower tax rates necessitate increased incentives to stimulate contributions.

Another aspect of this problem to consider is whether the special

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48. Id. at 216.
49. Id. It is the avoidance of these administrative and transactional costs that make a tax-based incentive system more attractive than a direct expenditure system. See infra notes 94-96 and accompanying text.
50. Chegwidden, supra note 22, at 1009.
51. This paper responds to the criticism by pointing out how the donation program can be designed to restrict the ability of donors to contribute only to wealthier school districts, thereby substantially limiting the donor's ability to manipulate contributions solely to serve future marketing interests. See infra notes 69-71 and accompanying text.
tax treatment is as "costly" as the government claims. Certainly, if one assumes that with or without the tax benefit the same amount of computers will be introduced into schools, then the deductions represent lost revenue for the government. However, if absent special treatment far fewer computers would be purchased through direct expenditure, donation deductions would not necessarily represent such a high cost to the government. For without special treatment, many computers would not be sold, and, consequently, the government would not collect income tax on them.

It is difficult to determine what would constitute a "proper" balance of costs between government and industry—a balance that would stimulate the maximum number of contributions at the lowest cost to the government. Perhaps the special treatment could be enacted on a "trial basis" at a low percentage above basis deduction. Many manufacturers, including Tandy/Radio Shack, indicate that they would support a percentage deduction even as low as 125% above basis. If this percentage stimulates contributions, then perhaps other companies would make gifts in order to avoid missing out on the future market benefits of the donor competitors. Furthermore, a system of direct expenditure could be implemented to fill gaps left by the indirect tax subsidy system.

On the other hand, if 125% is insufficient to stimulate the desired number of contributions, then the percentage could be raised incrementally until the desired balance is achieved. In this regard, lower tax rates make giving more costly to donors. Therefore, it may be necessary to raise the percentage up to a point higher than the proposed 200%. Even if the percentage is set at 200%, with today's tax rates, the government would still receive computers at below cost and save the administrative and transactional costs incurred by a comparable direct expenditure program.

B. CASE LAW PROHIBITING "CHARITABLE DEDUCTION" TREATMENT FOR DONATIONS THAT CONFER BENEFITS ON DONORS

While the proper balance of costs between government and industry remains a key issue in the implementation of a nationwide computer contributions program, another potential obstacle arises in connection with the interpretation of the case law emerging from the decision in Singer Co. v. United States.\textsuperscript{54} In Singer, the court considered whether to allow "charitable deduction" treatment to be extended to sewing machine purchase "discounts" offered to schools and other charities. The court disallowed the charitable deduction treatment arguing that the offered discounts were a disguised marketing ploy to get young women interested in Singer sewing machines, and that by offering the dis-

\textsuperscript{54} 449 F.2d 413 (Ct. Cl. 1971).
counts the company expected a return of future increased sales.\textsuperscript{55} As such, the company received a \textit{quid pro quo} for the discounts (making them seem more like business transactions rather than charitable contributions), and thus the discounts did not deserve charitable deduction treatment.\textsuperscript{56}

The issue arising from the \textit{Singer} case "is whether contributions by businesses to schools for use in educating students where there might be a benefit to the donor (e.g., through increasing a market for the business' products) should be treated for income tax purposes as charitable contributions (in which case a charitable deduction may be allowed for an amount in excess of the cost basis of the donated item), or as non-charitable promotional expenditures (in which case the deduction would be limited to the item's cost to the donor)."\textsuperscript{57}

The Treasury Department "question[s] whether [the contributions] would involve the sort of detached and disinterested generosity that the charitable contribution deduction is intended to reward."\textsuperscript{58} The Treasury Department argues that only competitive considerations motivate the intended beneficiaries (the computer companies) of proposals which offer special deductions for donors of computer equipment to schools: "The companies that supply equipment to schools can at least expect service contracts for that equipment and at best can anticipate future sales from schools and students' families."\textsuperscript{59} The Treasury Department also asserts that "the case law is replete with examples of taxpayers whose charitable contributions have been limited in whole or in part because of some indirect benefit flowing to the taxpayer from the gift."\textsuperscript{60} Indeed the case law clearly holds that "a contribution made to a charity is not made for exclusively public purposes if the donor receives, or anticipates receiving a \textit{substantial} benefit in return."\textsuperscript{61}

However, the receipt of a benefit by a donor does not necessarily preclude charitable contribution treatment. The key inquiry is whether there are "substantial benefits" to the donor that are "greater than those that inure to the general public from transfers for charitable purposes."\textsuperscript{62} In \textit{Ottawa Silica Co. v. United States}, the court further clarified the language used by the court in \textit{Singer}: "benefits that inure to the general public from charitable contributions are \textit{incidental} to the

\begin{footnotesize}
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\item \textsuperscript{55} \textit{Id.}
\item \textsuperscript{56} \textit{Joint Hearings, supra} note 2, at 11.
\item \textsuperscript{57} \textit{Id.}
\item \textsuperscript{58} \textit{Id.} at 45 (statement of Chapoton).
\item \textsuperscript{59} \textit{Id.} at 51-52.
\item \textsuperscript{60} \textit{Id.} at 45.
\item \textsuperscript{61} \textit{Id.} (emphasis added).
\item \textsuperscript{62} \textit{Ottawa Silica Co. v. United States}, 699 F.2d 1124, 1132 (Fed. Cir. 1983) (quoting \textit{Singer Co. v. United States}, 449 F.2d 413 (Ct. Cl. 1971)).
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Computer donors argue that the rapidly expanding market for the computer in the "information revolution" will yield increased future sales whether or not special charitable deductions rules are implemented. As such, the donors purport that the benefits of increased future sales arising from the donations are "incidental," because increased computer sales would inure to the general population with or without the implementation of the proposed special deductions. The deductions would simply help to get computers into schools more quickly.

However, it seems difficult to believe that no school or student who becomes familiar with a particular brand of donated computer will choose to purchase that particular brand in the future, and pay for other costly related services offered by the donor company. Thus, a strong argument can be made that the computer companies do receive a "substantial benefit" by donating the equipment, a benefit similar to that received by the plaintiff in the Singer case. Furthermore, in Singer, the court rejected the statistical argument that fewer than 2% of those previously trained on a Singer machine were influenced in their purchasing choices, and concluded that the predominant reasoning for offering the discounts was not charitable giving.64

Still, the donations of computer equipment here yield a less substantial benefit to donors than in either Singer or Ottawa Silica. In both of those cases, only one donor was involved who was quite clearly benefitting substantially from the tax benefits of charitable contribution. Here, the number of potential donors is very large, and the likelihood that they would receive direct benefits from their donations above those benefits which would otherwise inure seems less.

Further, the donation of computers to schools can be distinguished from the Singer and Ottawa Silica cases on policy grounds. Presently, the United States is faced with a nationally recognized crisis in education, which it is attempting to resolve by alleviating the current shortage of engineering students—a shortage which threatens the nation's ability to compete technologically with the rest of the world.65 This is hardly a matter of teaching young women how to sew, nor is it a local matter of development, as in Ottawa Silica. It is argued by computer companies, educators, and high-tech industry alike that the predominant interest in this proposal is not to enlarge computer markets, but rather "to meet the technology education challenge of today."66

63. Id. (emphasis added).
64. Joint Hearings, supra note 2, at 11.
65. See supra text accompanying notes 1-14.
66. Joint Hearings, supra note 2, at 221 (statement of Jobs).
Many schools are unable to afford the equipment needed, and still others simply need the impetus to get a computer education program running effectively. Thus, on policy grounds alone, the proposal for special deductions for contributions of computer equipment is justified, despite the potential benefits to computer manufacturers of increased markets.

C. Balancing Benefits to Donors

If the benefits to computer companies are too great to justify the special deductions, then the donation program could be restructured in several ways in order to give it a more "charitable" flavor. For example, benefits to donors could be diminished by requiring more from them than the delivery of computers to schools. Many suggest that computer companies be required to furnish teacher training, software, and service contract warranties along with any donated hardware.\(^6\)\(^7\)

This alternative achieves the most effective use of the new equipment, while at the same time giving the contribution program a more "charitable" appearance. Increasing donor burdens, however, may discourage potential donors from participating.

Second, the donation program could require the equal distribution of donated equipment through a plan that does not discriminate on an economic or geographic basis. In this way, some of the potential marketing benefits for donors would be diluted. They would not be permitted to target only wealthier neighborhoods where they expect to reap the benefits of future sales. At the same time, poorer schools and districts would gain equal access to the donated machines.

Third, the use of "sunset" provisions and annual "percentage gross income ceilings" on charitable deductions could limit the potential benefits to donors.

Fourth, limitations in the types of computers donated, while still accommodating the many diverse models of donation by each computer company, would assure that they could not take advantage of the preferred deductions by donating obsolete or otherwise undesirable equipment. At the same time, by limiting donations to types of desirable computers, the perception of a benefit afforded by the tax system would be corrected.

Each of these suggestions, as shall be discussed below, would help to increase the effectiveness of a donation program and dilute the perceived benefit gained by donors. At the same time, it would not discourage too many potential contributors from participating.

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\(^6\) See, e.g., id. at 94 (statement of Michael D. Schuetz, Co-Chair, Comm. on Computer Technology and Education, California Federation of Teachers).
1. **Teacher Training, Software and Service Contracts**

One way to dilute some of the benefits which donors gain from making donations would be to have them furnish the necessary teacher training, software and service contract warranties required to achieve effective use of the new equipment. There is concern that while schools will receive equipment, their teachers will not know how to use it effectively, and adequate software or service/maintenance will be unavailable. Any proposed bill would have to address these concerns.

To ensure proper teacher training, receipt of equipment could be conditioned on each school sending at least one teacher to a training program paid for and run by the donor of the equipment and conducted at a computer store or teacher training center. Upon completion of the training, the school would then be qualified to receive the equipment. In fact, this is exactly how Apple Computer, Inc. handled its donation program in California. Alternatively, a more flexible system could require that the computer companies simply furnish some training, at some time, along with donated equipment. For example, House Report number 3098 would have required that “the donor company and the recipient school work out an agreement relative to the number of orientation hours appropriately recognizing the diversity of computer-based systems that may be donated and the range of needs for orientation within the educational community.”

Some criticize a system which would rely on computer companies and stores for teacher training. First, “[a]side from their own difficulties in keeping the trained personnel and their lack of contact with the realities of the school situation, visiting a computer store often results in a pitch for sales.” Thus, the goal of diluting the marketing benefits inured to by the equipment donors might be defeated by relying on the donors for teacher training. Arguably, the cost to the donors of the training still gives the overall contribution program structure a more “charitable” color.

Additionally, the tax code has never allowed deductions for the contribution of intangible personal services because of the difficulty of valuation. But would valuation of teacher training be difficult to ascertain for deduction purposes? Arguably, “an amendment for the donation of intangibles can and should be structured specially, not withstanding the existing language of section 170, perhaps by setting a percentage of the fair market value of the good or service as the amount

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68. This concern may be somewhat unwarranted since computer manufacturers have an interest in seeing that their products are effectively put to use.
70. *Id.* at 47 (statement of Bossen).
71. *Id.* at 3 (statement of Joan Targ, President, Interactive Sciences, Inc.).
of the deduction."\textsuperscript{72}

Requiring donors to furnish teacher training is also criticized because it is thought to discourage donors who do not presently have training programs and would have to pay for their development.\textsuperscript{73} Furthermore, a requirement that donors provide teacher training deprives the proposal of the flexibility necessary to meet the wide variety of needs required by many different donors. For example, some donors cannot afford to provide required teacher training, but this should not bar them from participating in the donor program. On the other hand, the requirement aids schools in proper training for use of the computers while decreasing marketing benefits inured to donors by the tax benefits.

Similar to the discussion of teacher training, software and service contract warranties also merit attention. Adequate software and service warranties provided by donors would aid in the effort to put the new equipment to use effectively, but would increase donor costs, thereby further diluting donor benefits.

2. \textit{Equal Distribution}

Another way to keep donor benefits in check, while simultaneously increasing the effectiveness of the tax incentive program, is to equally distribute the donated equipment—without regard for economy or geography. Absent government regulation, only wealthier schools and districts will obtain adequate equipment at the expense of already economically disadvantaged school districts. While a donation plan will get computers into all schools, those who administer the plan should, nevertheless, address the disbursement issue.

Apple's original donation plan provided that it would donate one computer to every school in the United States to avoid unequal distribution.\textsuperscript{74} The problem with this plan was that it fulfilled the short-term needs of most schools, but locked schools into the Apple system and thus practically forced them to purchase Apple computers in the future. The plan appeared to be more of an advertising gimmick than a practical solution to the nation's computer educational problem.

When that plan failed, the next step was to invite other computer companies to get involved in the donation program, offering the special deductions to all. However, the computer companies were more in-

\textsuperscript{72} Id. at 111 (statement of Donald Devine, President, Trilog, Inc., Philadelphia, Pa., on behalf of the Ass'n of Data Processing Service Organizations).

\textsuperscript{73} Id. at 59 (statement of Hon. Fortney H. Stark of California, Chairman of the Subcomm. on Select Revenue Measures of the House of Representatives, in response to Bossen).

\textsuperscript{74} Joint Hearings, supra note 2, at 207 (statement of Jobs).
clined to donate equipment to schools in districts where future purchases by the schools were likely, or where students' families were affluent enough to purchase a computer for their homes. As such, the Treasury Department objected to proposals which allowed "the individual taxpayer [to] determine the recipients of the equipment." The Treasury Department argued that

a computer manufacturer could hardly be faulted if it placed its computers in schools whose students come from families which would be most likely to have financial resources to purchase similar equipment for home use. Yet a federal outlay program targeted at these same relatively well off families would hardly meet with congressional approval.

The donation approach could solve the distribution problem in the following ways. First, legislation could require that each state monitor the donations going to its districts to insure that each district receives the same amount of donated equipment. This solution allows for state monitoring of distribution, but it also requires a large amount of bureaucratic involvement. However, bureaucratic involvement is necessary, no matter how disadvantageous, to insure that the computers are distributed equally.

Another solution would be to allow each district to oversee distribution among its own schools. This solution does not allow comparison of equal distribution among districts, however, and it shifts administrative costs of distribution to the school district.

Finally, the federal government could oversee the disbursement of the donated equipment, though the attendant costs of this type of administration would likely outweigh the progress toward equal distribution.

None of these alternatives will truly correct the problem of unequal distribution because wealthier and middle class schools will always be able to afford computers regardless of whether or not a tax subsidy exists. Yet, steps should be taken to equalize the disparities which are already emerging among richer and poorer districts. Furthermore, requirements for equal disbursement of donated equipment will appease concerns that donors benefit by making donations targeted in wealthy areas for marketing purposes.

3. Sunset Provisions and Percentage Gross Income Ceilings on Charitable Deductions

The amount of benefits to donors may be manipulated by sunset clauses and "percentage gross income ceilings on charitable deductions."

75. Id. at 49 (statement of Chapoton).
76. Id.
A sunset clause addresses the period of time computer donors would be able to make contributions and still receive the preferred deductions. A percentage gross income ceiling on charitable deductions indicates the maximum number of dollars that may be devoted by each individual to charities and also deducted from the individual’s taxes. By manipulating the percentage gross income ceiling on charitable deductions to an amount above the general 10% limitation, donations of computers to schools could be encouraged.\textsuperscript{77} The sunset clause and percentage gross income ceiling are related in that both affect the amount companies can donate while still receiving preferred tax deductions. Allowing companies to make donations for a longer period of time, or to offset higher percentages of their gross income, allows them to take greater advantage of the deductions and brings more computers into schools. On the other hand, these provisions also decrease government revenue and give educational computer donors an unfair tax advantage over other taxpayers. To dilute the benefits to donors, the donation period should be shortened and the allowable offset percentage kept at 10%. However, such a change would be likely to increase government revenue, at the expense of the schools.

Prior proposals have included a one-year sunset clause. Many potential donors argue that the period should extend to five years; others recommend allowing the donation program to run indefinitely. Supporters of the five-year sunset provision propound that most computer manufacturers do “not carry large inventories because rapid advances in technology often make current models obsolete.”\textsuperscript{78} Thus, few companies have the ability to both fill their present orders and also set aside equipment for contribution.\textsuperscript{79} A five-year sunset clause allows companies to plan ahead in an effort to responsibly participate in the program, thereby maximizing the benefits to schools.\textsuperscript{80}

A one-year limit would encourage corporations to dump excess and obsolete equipment onto schools, thus serving only the corporation’s best interests by granting it relatively inexpensive advertising and significant tax benefits at the expense of children’s education. Although a one-year provision may be preferable as far as ongoing legislation is concerned, its enactment should be delayed so that companies would be able to prepare for the donation period.

The Treasury Department prefers the one-year limit to the five-year option because with the shorter time period it would lose less revenue. In addition, the one-year limitation encourages the introduction of

\textsuperscript{77} Id. at 12.
\textsuperscript{78} Id. at 51 (statement of Chapoton).
\textsuperscript{79} House Hearing, supra note 3, at 111 (statement of Devine).
\textsuperscript{80} Id. at 46 (statement of Bossen).
the equipment into schools more quickly than the five-year provision. Furthermore, the one-year limit could be extended if the need for long-term planning is perceived. In contrast, the five-year extension decreases the incentive to make donations early on.

The arguments for having no sunset clause are that the industry's technology is advancing so rapidly that continuous donations will be necessary to keep schools up to date. The need presently is much greater than can be met in one or even several years. The program should also be allowed to develop over time in order to achieve the most efficient use of resources. On the other hand, if the program runs indefinitely, tax revenues from one of the nation's fastest growing industries would be lost, while computer companies making donations would be gaining a permanent and undiluted benefit through the tax system. However, a limitation on the time period could always be extended if necessary. Finally, the long-term existence of tax incentives might "muddy the picture" of what solutions are needed to solve the question of long-term school finance. Rather, the program should be considered as "the seeding within the educational system of something generally recognized as beneficial, even necessary."

The arguments for raising the charitable contribution limit above 10% are related to the foregoing arguments concerning the sunset provisions. Proposals have been made to raise the 10% yearly ceiling to 30% in the case of contributions of computer equipment to schools. One argument for raising the ceiling is that more computers can be donated to schools faster, accomplishing in one year what would normally be done in three years. Additionally, many companies with uncertain incomes are limited in their ability to donate enthusiastically for fear of making donations in excess of the 10% of annual gross income ceiling, for which no preferred deduction would be allowed. The Treasury Department opposes this position because it "would permit the benefited corporations to obtain three times the benefit from contributions of computers than could be obtained by a corporation donating cash or other types of property to any other worthy cause . . . ." Furthermore, the sudden raise in the limit would result in a "hill and valley" revenue

81. Id. at 73 (statement of Gary L. Gubitz, Corporate Training Specialist, Hewlett-Packard).
82. Id.
83. Id. at 97 (statement of Del A. Weber, Secretary-Treasurer, California Teachers Association).
84. Id.
85. Joint Hearings, supra note 2, at 208 (statement of Jobs in response to Chapoton); House Hearing, supra note 3, at 65 (statement of Bowen).
86. Joint Hearings, supra note 2, at 45 (statement of Chapoton).
MEETING EDUCATIONAL CHALLENGES

One potential approach to the issues of sunset provisions and percentage gross income ceilings on charitable deductions is to set them in relation to each other. For example, allowing for a five-year sunset provision would alleviate the need to increase the ceiling of 30%; however, this would also slow the rate of contribution each year. If the desired effect is to get computers into schools quickly, then perhaps a one-year period with a 30% ceiling would be better; however, this alternative might also cause the "dumping" of excess equipment into schools simply for tax and advertisement purposes. If the desired effect is to limit the benefits that donors may inure from the contributions program, then a 10% ceiling and a one-year sunset provision might be in order; this could curb the ability of donors without large inventories to participate, however. Thus, while one might want to limit the degree to which computer companies benefit from the donations program, doing so through sunset provisions and percentage gross income ceilings might also decrease the number and quality of computers that are donated to schools.

4. The Tension Between Limiting Eligibility While Accommodating Diversity

Another way to affect perceived donor benefits is to arrange the donation program to allow a large number of diverse companies to participate. By accommodating many donors, the perception that the tax system unfairly benefits only a few companies would diminish.

There are several reasons why this would be beneficial. First, the main focus of the tax incentive program is to get computers into schools quickly. This purpose would best be served by allowing for a relatively unrestricted flow of equipment from many different donors. Because each donor has its own individual corporate scheme, tax incentives encouraging donations must be flexible enough to allow for a wide variety of "giving" models—each with its peculiar benefits to education. As former California Governor Edmund Brown argues,

...
A second reason for allowing diversity in a donation plan is that some students benefit from certain types of computers and have no use for others. Thus, the donation of a variety of equipment will help to meet different students' needs. A third reason for diversity is that the tax system has generally been structured around the notion that like taxpayers should be treated alike. Therefore, the donation incentive system must not benefit certain donors while making it economically unfeasible or otherwise impossible for other computer manufacturers to participate. Finally, the schools and districts today are all at varying levels of implementing computer education. Therefore, the incentive program must be designed to reflect the diverse needs of individual schools.

However, the desire to accommodate diversity must be balanced against the desire to insure that donors are not able to take advantage of the special deductions by donating obsolete or otherwise undesirable equipment. In order to prevent the government from paying for, and schools from receiving, this undesirable equipment, some limitations on the type of equipment which can be donated are needed. For example, restrictions could be imposed on the size and capacity of equipment to be donated. These restrictions, however, must be broad enough to allow donation of a wide variety of desirable equipment, but not too broad to allow "dumping" of unneeded, yet costly, equipment into schools with donors receiving tax benefits. The inescapable question which arises is, At what point should the eligible equipment line be drawn?

As in any line-drawing problem, some people will fall on one side of the line and gain an advantage, and others will fall on the other side of the line and be disadvantaged. However, if a large variety of equipment is eligible for donation, the dumping problem could still be avoided by allowing schools to only accept the equipment they need, and/or have applied for—thereby incorporating a sort of "beggars can be choosers" attitude. In this way, the government could minimize the amount of superfluous equipment procured. This limitation avoids giving a competitive advantage to particular companies through the tax system (accommodating diversity), while still restricting the flow of equipment so as to avoid the dumping problem.

If after broadening the coverage of equipment eligible for donation, there still remained a perception that some manufacturers were being advantaged by the tax incentive system at the expense of others, it need only be argued that even under a system of direct government purchase of equipment, the government would still be selectively subsidizing some manufacturers and not others. Therefore, the claim of unfair ben-

89. Id. at 90 (statement of Thomas W. Heineman, Coordinator, Instructional Materials Center, Livermore Valley Joint Unified School District).
efit to donors over like taxpayers is not exclusively a result that would arise due to a tax incentive system. Such a claim of unfair treatment would arise "no matter what form of government expenditure were selected." 90

III. DIRECT PURCHASES OF COMPUTER EQUIPMENT THROUGH GRANTS

Up to this point, we have seen how tax incentives for corporate donations of computers accelerate the introduction of computers into schools. However, "[t]ax incentives for corporation donations of computers to schools will not do the entire job of making computers available and accessible to all children. A federal program of grants is needed for the purchase of computer systems." 91 Grants may be used to purchase computer equipment and thereby fill in gaps left in those areas corporate donors fail to target. Even where equal distribution of donated equipment is accomplished, often poorer and minority school districts are unable to afford equipment needed beyond that which is donated. As a result, to round out the tax incentive program, a direct expenditure program, which is carefully orchestrated to fill these gaps, is necessary. 92

A system of direct expenditure must be fashioned upon the same policy goals that are considered when structuring a system of tax incentives for encouraging donations. Thus, each state should administer the funding flexibly, while minimizing the expansion of corresponding bureaucracy. 93 Furthermore, grants should include plans for integration of computers into schools, teacher training, software development, and maintenance. 94 Priority should be given to schools demonstrating the greatest need and least capability of purchase. 95

Opponents argue that if a system of direct expenditure achieves the same policy goals as tax incentives, then why not simply purchase the

91. House Hearing, supra note 3, at 13 (statement of Brown).
92. See supra notes 74-76 and accompanying text. There is a need for equal distribution of donated equipment through the tax incentive system so as to avoid giving advantages to districts which receive donated equipment. Without such a system, poorer and minority districts would potentially be left out by the corporate donors since future sales in these district areas would be unlikely. In addition, even if the tax incentive donation program provided for equal equipment distribution among all districts, the need for grants to fill gaps would still be present since such a system of donations should not be relied on as a perfect means of acquiring all of the computer equipment needed by every school district in the nation.
94. Id.
95. Id.
computers directly rather than offer a tax incentive to encourage donations? Direct expenditure programs avoid problems of unequal distribution of equipment to poorer districts, allow schools to select and purchase only the equipment they need, and are reviewed by Congress each year along with other programs seeking funding. Furthermore, tax incentives are inconsistent with the notion of a comprehensive tax on all "income," and create perceptions that the tax system unfairly advantages some taxpayers over others.

These arguments do not address the fact that there is a greater potential for both lower equipment prices and administrative/transactional costs under tax incentive programs than a direct expenditure program. The tax incentive program proposed in this case would yield lower costs than a parallel direct purchase program for several reasons. First, with a donation program, the government would be receiving the donated equipment at below cost to the manufacturer. It seems less likely that computer manufacturers would be willing to sell equipment at below cost under a direct expenditure program. Second, computer companies would absorb the costs of administration without a great deal of undesirable and costly expansion of governmental bureaucracy.

However, supporters of direct expenditure programs argue, first, that tax incentives do not provide for equal distribution of computer equipment to poorer school districts. As discussed previously, the donation program could be designed so as to assure a fairly equal distribution of donated equipment without much increase in administrative costs. Furthermore, any remaining distributional inequalities could be rectified through the use of direct expenditures targeted at school districts that were not receiving an equal share of donated equipment.

Another argument posited by supporters of direct expenditures is

96. Zelinsky, supra note 90, at 1029 n.117.
97. Id. at 1028-29.
98. Id. at 1032.
99. See supra note 45-49 and accompanying text.
100. See, e.g., House Hearing, supra note 3, at 12 (a discussion of Apple Computer's "Kids Can't Wait" project in California, where the computers were distributed to the schools by Apple Dealers throughout the state).
102. See supra notes 74-76 and accompanying text.
that a direct expenditure program would have an advantage over a tax incentives program in that it would allow schools to select and purchase the equipment that they need. However, as discussed above, a donation program can also be designed to allow schools or districts to apply for and select the equipment that they will need and to prioritize each district's eligibility for donations. Thus, no real advantage accrues in favoring the use of direct expenditure over tax incentives for encouraging donations.

Supporters of direct expenditures also argue that direct expenditures are subject to yearly budgetary scrutiny by Congress and, therefore, increase the government's ability to closely manage the acquisition of computers. In contrast, a system implementing tax incentives to encourage donations would not receive the same budgetary review each year. Such a system would be analogous to uncontrolled spending, making it less preferable than a direct expenditure system which "caps" spending. Ironically, opponents of tax incentives have so vociferously opposed incentive proposals that "[t]ax incentives now seem more subject to effective congressional review than such direct expenditure programs as social security." Furthermore, a tax incentive system could "cap" the number of donations allowable, thereby effectively controlling spending. For example, prior to taking a deduction for donated equipment, the donor would obtain some form of approval from the school district or state receiving the donation. The incentive could thus "be designed to expire upon the attainment of a predetermined limit." Consequently, it is not necessarily clear cut that direct expenditures would allow for a firmer control on spending than tax incentives.

A fourth argument lodged by supporters of direct expenditures is that tax incentives are inconsistent with a comprehensive tax on all "income." In response to this argument, "the construction of an income tax invariably involves many close and essentially arbitrary decisions as to includability and deductibility." Various policy justifications exist for not including certain items in, or for allowing deductions from, one's "income." For example, when one cooks his own dinner, he effectively receives a benefit. However, for reasons of administrability and tax-

103. Zelinsky, supra note 90, at 1029 n.117 (citing S. Surrey, Pathways to Tax Reform, The Concept of Tax Expenditures 731 (1973)).
104. Id. at 1029.
105. Id. at 1030.
106. Id.
107. Id.
108. Id.
109. Id. at 1028.
110. Id. at 1029.
payer morale, such imputed income is not taxed. "If deviations from an ideal definition of income can be tolerated for these (very legitimate) reasons, it is difficult to see why an ideal cannot be breached for other equally compelling concerns such as efficiency" (i.e., lower transaction costs).\textsuperscript{111}

Additionally, tax incentives create perceptions of unfairness in the tax system by advantaging some taxpayers over others.\textsuperscript{112} For example, computer manufacturers who do not produce educational equipment would not be eligible for the benefit offered by the tax incentive program and might perceive this as the tax system unfairly creating an advantage for their competitors who do produce educational equipment. Whether a system of grants or a system of tax incentives is implemented, there will always be those advantaged and those disadvantaged by the government's action, and "[c]onsequently, direct expenditures, as a matter of [taxpayer] morale, have no advantage over tax incentives."\textsuperscript{113} On the contrary, tax incentives have an advantage over direct expenditures as to the issue of taxpayer morale. Consider the argument that tax incentives implement policies that "may be politically unachievable under a candid spending program because such a subsidy would be perceived by voters as a plan of redistribution from the majority to minority of the middle class."\textsuperscript{114}

The above discussion demonstrates that those who generally oppose tax incentives often do so for unpersuasive reasons. Often they fail to distinguish "good" tax incentives from "bad" ones. Zelinsky identifies a "good" incentive as one which "substantively implement[s] a federal policy," is efficient, and is "justifiable in contradistinction to a direct expenditure program pursuing the same policy."\textsuperscript{115} In the case of tax incentives to encourage donations of computer equipment to schools, the potential for lower costs both in purchase price and transactions justifies the use of incentives rather than direct expenditure.\textsuperscript{116}

### III. CONCLUSION

This Note has focused on the two forms of direct Congressional action which would have the most potential to rapidly bring new computer equipment into schools: tax incentives to encourage corporate charitable donations of computer systems to schools and direct purchase

\begin{itemize}
\item \textsuperscript{111} Id.
\item \textsuperscript{112} Id. at 1027.
\item \textsuperscript{113} Id. at 1028.
\item \textsuperscript{115} Zelinsky, \textit{supra} note 90, at 1033.
\item \textsuperscript{116} Id. at 1032.
\end{itemize}
of computer systems funded through grants. The discussion demonstrates that tax incentive alternatives can be structured so as to balance equitably the costs of giving between donor and government.

Furthermore, the arguments advanced suggest that, contrary to Singer, contributions by computer companies to schools should be treated for tax purposes as charitable contributions rather than non-charitable marketing expenditures. This contention is bolstered by virtue of the various ways the donation program could be designed to limit the ability of donors to derive unacceptable marketing advantages. For example, requirements that donors provide teacher training, software and service contracts along with any hardware donated, and/or that donated equipment be equally disbursed without discrimination on an economic or geographic basis, would have the effect of diluting the potential marketing benefits which donors derive from having students exposed to their products. Also, potential donor marketing benefits may be affected through the manipulation of "sunset" provisions and percentage gross income ceilings on charitable deductions.

The Note concludes that, for reasons of lower transaction costs (and perhaps lower equipment costs), a system of tax incentives encouraging donations is preferable to a direct expenditure program as a means of acquiring computers for schools. However, a system of grants is also necessary when the donation system fails to solicit all equipment needed.

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117. See Singer Co. v. United States, 449 F.2d 413 (Ct. Cl. 1971); See supra text accompanying notes 54-66.