

EDUCATIONAL ENDOWMENT FUND  
An Economic and Policy Analysis

by

Gordon Harrison & Associates

and

Scott Goldsmith  
Institute of Social and Economic Research  
University of Alaska

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Senator Terry Stimson  
Project Director

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## I. INTRODUCTION

### 1. Purpose of the Study

Projections of state revenue made in 1980 and 1981 indicated that Alaska would enjoy steadily increasing wealth from oil production through the end of the decade. In the 1990s, however, petroleum revenue is expected to decline sharply. A widespread concern among Alaskans today is that state wealth is not being managed with a long-term perspective--that is, with a view to the period of declining revenue and state budgetary constraints. They feel that spending patterns during the boom should anticipate the coming bust. One proposed way to mitigate the boom-bust effects of petroleum revenue is to use current state income to create an educational endowment fund that will generate a stable, long-term source of revenue for the state's education needs.

The purpose of this study is to discuss the major economic and public policy issues associated with the proposal to create a large endowment fund for education in Alaska. The study does not evaluate a particular fund proposal, but rather seeks to identify and examine issues raised by the general concept of a new investment trust fund for educational purposes. A small number of fund structures are analyzed by computer simulation. Many others are possible. As the state's fiscal picture changes, further analyses of fund structures will be necessary. The computer analysis in this report identifies key variables that must be considered in designing an educational endowment fund. No overall recommendations are made about the desirability of establishing a fund or about the proper size and shape of a fund. The aim of this report is to provide background data to help the reader reach his or her own conclusions about the issues raised by the endowment fund concept.

### 2. The Endowment Fund Concept

An endowment fund for education (or for any other specific purpose, such as the arts or recreational land development) would be a public trust fund similar to the Alaska Permanent Fund except earnings of the fund would be earmarked for a designated use. The principal of a permanent fund is not spent; rather, it is invested and only the interest, dividends, or other earnings from the investments may be spent. Although the assets of endowment trusts are normally inviolate and held in perpetuity (like those of

the Alaska Permanent Fund), a trust fund could be structured to allow the assets to be withdrawn under certain circumstances, or under a certain pre-established schedule. Other elements of flexibility could also be designed into the fund. For example, enabling legislation could include a requirement for periodic referenda to reaffirm the public's commitment to the fund.

Article IX, Section 7, of Alaska's constitution prohibits dedicating public revenues to specific purposes. A constitutional amendment (Article IX, Section 15) was necessary to authorize creation of the Alaska Permanent Fund. Another constitutional amendment would be required to authorize creation of a substantial endowment fund for education or any other specific purpose.<sup>1</sup>

Alaska already has a small educational endowment fund which enjoys unique constitutional status. It is the result of certain land grants made by the federal government to support public schools in the territory. These school trust lands no longer exist, and the fund is currently supported by an annual deposit of one-half of one percent of the proceeds from all state lands. The school fund has assets of about \$26 million which are earning an average return of 13.74 percent per year.<sup>2</sup> However, this existing fund is not large enough to make a significant contribution to statewide educational programs. A new, larger fund would be required for that objective. Although the attorney general has not provided an opinion on the question, it is assumed that the existing fund could not be increased substantially without new constitutional authorization.

### 3. Organization of this Report

This report begins with the broadest issues associated with an endowment fund and then treats successively narrower issues. Thus, the most fundamental issue is presented at the outset: should a larger portion of current state revenues be saved rather than spent now on capital and operating programs? This issue is discussed in Section II. The next major question discussed in Section III is whether the income earned on additional savings should be earmarked for

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<sup>1</sup>Appendix B contains a discussion of dedicated funds and the constitutional issues surrounding them in Alaska.

<sup>2</sup>Appendix C discusses this fund in more detail as well as similar funds in a sample of other states.

education. If so, how large a fund would be necessary to meet educational objectives, and how large a fund is feasible under current budgetary conditions? These questions are analyzed by means of computer simulation in Section IV.

Then, how should the fund be created? Finally, how could an educational endowment fund be managed? These questions are addressed in Section V.

## II. THE FUND AS A MECHANISM FOR SAVING

Creation of an educational endowment fund large enough to make a significant contribution to future state educational expenses would require a substantial commitment of state revenues over the next several years. This commitment, not unlike that being made to the Alaska Permanent Fund, would represent a decision to save rather than spend a larger portion of the state's current income. Thus, the first set of public policy issues presented by the endowment concept concerns saving (and investing) current state income in contrast to spending now for capital projects and operational programs.

### 1. State Revenues and Expenditures

State revenues and expenditures have increased rapidly in the years since 1969 when Alaska received \$900 million in North Slope lease bonuses (Tables II.1 and II.2). Currently almost 90 percent of unrestricted general fund revenue is derived from petroleum production. If there are no major oil discoveries on state land in the coming years, the state faces a financial crisis when the productivity of North Slope fields begins to decline. Unless the rate of increase of state spending declines drastically and the government takes other measures to improve its long-term financial future, a wrenching adjustment will be necessary in the near future. While future oil discoveries of significance may occur, it is not prudent to base current financial decisions on this possibility.

### 2. Saving Lessens the Boom-Bust Effect of Petroleum Revenue

Saving a substantial portion of petroleum revenue during the peak years of North Slope production will lessen the fiscal "bust" which will begin when production declines. The existing Permanent Fund moderates the fiscal boom-bust effects of resource development, and an education endowment fund would have the same counter-cyclical benefit.

Deposits made in an educational trust would divert a portion of current revenues away from operating and capital programs of the state government. While the value to society of these programs would be lost, the money saved would be

TABLE II.1  
GENERAL FUND APPROPRIATIONS, 1960-1980

Calendar Year	Anchorage Consumer Price Index October 1967-100.0	Alaska Population <sup>2</sup>	General Fund Appropriations (\$ millions) <sup>3</sup>	General Fund Appropriations in Constant Dollars (\$ millions)	Per Capita General Fund Appropriations in Constant Dollars (dollars)
1960	92.0	226,167	45.9	49.8	220
1961	92.9	238,000	52.3	56.3	236
1962	92.6	246,000	65.8	71.0	289
1963	93.3	256,000	82.9	88.8	347
1964	93.9	263,000	79.1	84.2	320
1965	94.2	271,000	86.1	102.0	337
1966	97.9	271,000	93.8	95.8	354
1967	100.0	278,000	113.1	113.1	407
1968	102.6	285,000	124.1	120.9	424
1969	107.3	296,000	154.1	143.6	485
1970	111.5	302,361	314.2	281.7	932
1971	114.4	316,000	292.1	255.3	808
1972	116.9	326,000	333.5	285.2	875
1973	123.8	332,000	379.3	306.3	923
1974	140.0	343,000	451.3	322.3	940
1975	157.4	379,000	590.3	375.0	989
1976	167.6	405,000	692.3	413.0	1,020
1977	177.3	408,000	819.1	462.0	1,132
1978	194.8 <sup>1</sup>	411,000	1,071.7	550.2	1,339
1979	211.8	406,000	1,062.3	501.6	1,235
1980	232.0	400,331	3,270.8	1,409.8	3,521

<sup>1</sup>1978-1980 figures are Anchorage price index for urban wage earners and clerical employees as of November.

<sup>2</sup>1960, 1970, and 1980 figures based on April 1 census; other figures refer to estimated July 1 population of the U.S. Bureau of the Census.

<sup>3</sup>(a) The figures are for the fiscal year following the listed calendar year; e.g., in 1960 the fiscal year 1961 appropriations act of \$39.8 million in general funds was signed into law.

(b) 1960-1972 figures from Governor's Budget Document; 1973-1980 figures from Free Conference Committee Report on the Budget.

(c) Supplemental appropriations are excluded except for a \$580.8 million capital projects supplemental in 1980.

(d) Appropriations to the Permanent Fund and general reserve which are strictly for investment are excluded.

SOURCE: Legislative Affairs Agency, Legislative Finance Division, May 1981.



TABLE II.2  
ANNUAL COMPOUND GROWTH RATES

<u>Period</u>	<u>Anchorage Consumer Price Index</u>	<u>Alaska Population</u>	<u>General Fund Appropriations</u>	<u>General Fund Appropriations in Constant Dollars</u>	<u>Per Capita General Fund Appropriations in Constant Dollars</u>
1960-1980	4.73%	2.90%	23.78%	18.19%	14.87%
1960-1969	1.72	3.03	14.40	12.49	9.18
1970-1980	7.60	2.85	26.40	17.47	14.22

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SOURCE: Legislative Affairs Agency, Legislative Finance Division, May 1981.

available for future use. Also, the initial reduction in spending would facilitate future savings because state programs seldom represent one-time expenditures. Present spending tends to beget future spending. For example, operating programs create a political constituency both of those people who receive the new governmental service and of the state employees who provide it; in the case of capital programs, new facilities incur ongoing maintenance and operating costs. Thus, decreasing consumption now would improve the long-term financial situation of the state by reducing present and future spending requirements.

Furthermore, saving makes money available for future spending when petroleum revenues are in decline. Savings put in a permanent fund generate revenue in perpetuity through investment of the principal. Thus, saving current income contributes to the future well-being of the state treasury by reducing present and future spending and by providing a new long-term source of public revenue.

### 3. Savings Provide Capital for Investment

Capital that accumulated in an educational trust fund--the principal or corpus of the fund--would be available for investment. The principal could be invested in development projects in Alaska, such as the North Slope natural gas pipeline or the gas conditioning plant associated with it (assuming they were determined to be credit-worthy projects). The fund's principal could also be invested within Alaska in commercial real estate, home mortgages, and municipal bonds. There is a precedent for this; for example, the Texas Educational Endowment Fund (discussed in Appendix C) is a major purchaser of school bonds issued by local county school districts.

The range of investments allowable by the fund would be set by its constitutional and statutory framework. If the fund were expected to generate revenue in perpetuity and maintain the relative value of its assets, its earnings would have to be the highest reasonably and safely possible (not less than maximum money market rates of interest; equity investments in development projects should exceed interest rates). This is because the fund would only contribute to educational programs its earnings in excess of inflation (real earnings). The balance would have to be reinvested to maintain the fund's principal. With different expectations of the fund, however, investments could be made that would earn less than normal market rates of return. In this way, the fund could subsidize home mortgages, for

example. The fund could also subsidize municipal projects such as roads and utilities by purchasing local bond offerings at a percentage point or two below market interest rates. This, however, would reduce earnings of the fund and would result in a smaller contribution to educational programs than would be otherwise possible; but there would be benefits to homeowners, local taxpayers, or other recipients of subsidized loans.

An endowment fund need not be perpetual; its principal might be consumed over a set period of time. For example, investments of an educational endowment fund designed to liquidate itself over a ten- or fifteen-year period would have to be made with a view to their liquidity. Municipal and corporate bonds with appropriate maturation dates would probably be the preferred investment for a fund of this type.<sup>1</sup>

#### 4. An Alternative to Savings

An alternative approach to staving off financial crisis when petroleum revenues are in decline would be to spend heavily now for such capital projects as transportation improvements, power systems, airports, and harbors. One could argue that these projects would promote growth of the economy, and this economic growth would in turn generate future tax revenue to offset declining state income from petroleum sources. This is the argument made for the proposed Capital Investment Fund by Commonwealth North, for example.<sup>2</sup>

An evaluation of this capital investment approach is well beyond the scope of this study. It would require an assessment of the likely effects of infrastructure development on economic growth, the timing of that growth, and the effects of the growth on state revenue. In the absence of such an assessment by its proponents, the strategy does not seem entirely persuasive. This is because of the uncertain relationship of infrastructure development to economic

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<sup>1</sup>A fund of this type was proposed in 1981 as Senate Bill 32 and House Bill 84. A financial analysis of it was prepared by Sutro and Co., Inc., for Representative Pappy Moss; Alaska Educational Endowment Fund Report, February 17, 1981.

<sup>2</sup>Commonwealth North, Investing in Alaska's Future; The Capital Investment Fund, Anchorage (no date).

growth; the great magnitude of petroleum revenue that would have to be replaced by taxing other types of economic activity; and the loss of revenue through continuing subsidization of uneconomic projects.

The principal of an educational trust fund could also be used to provide capital for infrastructure projects within Alaska (as well as capital for credit-worthy development projects and other purposes), but only those financed by state or municipal bonds which would repay principal and interest from tax assessments and user fees. Investment of the trust funds would have to produce income. Insofar as the Capital Investment Fund contemplates grants for roads, harbors, airports, bridges, and other infrastructure projects, it is an approach to long-term state financial management that is fundamentally different from the savings approach of the proposed educational endowment fund.

#### 5. Alternative Methods of Saving

An educational endowment fund would represent a specialized saving mechanism. It would dedicate investment income to an exclusive purpose. (This issue is discussed below in Section III.) An educational trust fund would also be a type of permanent fund in that the principal could not be spent, or at least not for a specified period of time. Thus, a significant accumulation of the state's capital would not normally be available for competing state needs, which would reduce the state's financial liquidity. Also, should more than the real earnings (earnings in excess of inflation) of such a trust fund be withdrawn, the long-term value of the fund would decline. (This effect is discussed in Section IV.) If only the real earnings were withdrawn, comparatively little money would be available for spending. These are current management concerns of the Alaska Permanent Fund.

Opponents of increased saving argue that current consumption for a harbor, school, or social program would yield greater present and future benefits than the earnings of a savings account. This argument is stronger when the principal of a savings account is subject to significant erosion by inflation and when liquidity is sacrificed. An alternative method of saving state revenue would be for the legislature to simply leave unappropriated money in the general fund as a year-end surplus. This surplus would be invested in the same short-term money market instruments in which the bulk of Permanent Fund assets are currently invested. The difference between an endowment or permanent

fund and a general fund surplus is that a general fund surplus may be appropriated whenever the need arises. Thus, an important issue associated with saving is the proportion of state revenue that can be prudently "locked up" for a greater or lesser period and whose return may only be slightly higher than the rate of inflation. Those who desire maximum budgetary flexibility may argue for saving by simply accumulating a general fund surplus. Those who distrust legislative judgment may argue that inaccessibility of savings is the advantage that an endowment fund has over a general fund surplus. That is, an endowment fund would remove discretion from the legislature to determine routinely that extraordinary "need" warranted the spending of accumulated savings.

Since there are existing mechanisms for saving, it is not necessary to create an educational endowment fund merely to acquire a savings device. However, an endowment fund is a device that could increase total state savings by attracting support for a popular savings program.

### III. DEDICATION OF INVESTMENT INCOME TO EDUCATION

If it is decided that increased state saving is a desirable public policy objective and that this saving would best be accomplished through a type of permanent fund that would remove the principal from legislative appropriation, should the earnings of the savings account be dedicated to a specific purpose--namely, education?

#### 1. The Issue of Dedication

Dedication of specific public revenues to specific purposes has advantages and disadvantages.<sup>1</sup> The primary objection to this practice is the loss of flexibility that occurs in preparing annual budgets. Problems are most likely to become apparent in a period of declining revenues, but they may appear whenever spending priorities are re-examined. Adjustments cannot readily be made in dedicated programs that are protected from legislative scrutiny. For example, constitutional dedication of certain tax proceeds to a specific governmental activity could thwart the legislature's desire to eliminate that activity altogether or to reallocate a portion of its budget to a different program.

The potential loss of budgetary flexibility inherent in dedicated revenues can be minimized if (a) the protected program represents a fundamental governmental service, the need for which is unlikely to diminish in the future; (b) the dedicated revenue stream covers substantially less than the total annual cost of the program so that the legislature retains a measure of budgetary control over it; and (c) the revenue is dedicated to a broadly defined program so that the legislature may exercise discretion over the allocation of budget items within that general category. Proposals for an endowment fund for any purpose should demonstrate these attributes.

The primary advantage of dedicating the proceeds of a tax is to gain public support for the revenue measure. Sportsmen as a group, for example, do not begrudge hunting and fishing license fees because they know that these fees directly support fish and game management programs. In the case at hand, savings rather than a tax is at issue. In

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<sup>1</sup>A more extensive discussion of dedicated revenues is presented in Appendix B.

order to save, the public must forego services and public facilities. This sacrifice may be more acceptable if the benefits of saving are well known and widely spread.<sup>2</sup> Therefore, a new permanent fund with its income dedicated to educational activities may be politically more feasible than a commensurate increase in deposits to the existing Permanent Fund or an addition to the year-end general fund surplus.

Creating a new source of revenue and earmarking it for a basic governmental service would benefit all general fund programs. Although it could be used for an exclusive purpose, new earmarked revenue would contribute to the general fund indirectly by increasing the amount of money available for appropriation to other state functions. In the case of an endowment fund, income generated by investments of the fund's principal and dedicated to a specific spending category (e.g., education) would displace an equal sum of money previously appropriated to that category. Thus, endowment fund revenue earmarked for one activity would permit a greater percentage of state general fund revenue to be spent on other activities.

## 2. The Case for Education

Although a case can be made for endowing any of several basic state programs (public protection, for example), the case for education stands out. Education is a general governmental function that directly and indirectly benefits all members of society; it is the largest single state operating budgetary category; and it has a tradition of public endowment.

Education is a basic governmental service. The vast majority of the population attends public schools. In Alaska, education is a constitutionally mandated responsibility of the state government. Article VII, Section 1, of Alaska's constitution states: "The legislature shall by general law establish and maintain a system of public schools open to all children of the State . . ." In fiscal year 1981, the state provided 76.2 percent of the cost of local elementary and secondary education in Alaska (the

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<sup>2</sup>An attempt has been made to enhance the popularity of the Permanent Fund by dedicating half of its earnings to per capita distribution. This popularity is thought to result in pressure for reduced state spending in order to increase contributions to the Fund.

federal contribution was approximately 3.5 percent and the local contribution approximately 20.3 percent).<sup>3</sup>

The state's major financial role in education makes education the largest of the ten functional categories in the state budget. Table III.1 shows that the general fund and total appropriation for education in fiscal year 1982 equal about a quarter of the state's entire operating budget (26.3 percent of the general fund and 23.3 percent of total funds). When appropriations for the University of Alaska are included, education accounts for about one-third of the state's operating budget in FY 1982 (32.7 percent of the general fund and 31.7 percent of total funds). (See Table IV.1 for information about the growth of educational expenditures between FY 1978 and FY 1982, and Table III.2 for information about major components of the education category.)

The importance of public education has long been recognized in this country, and the cost of it has always been a burden on taxpayers. As a result, there is a tradition in the United States of endowing the public schools with the proceeds derived from specially designated public land (land has long been considered the most plentiful and valuable public asset.) At the present time, a majority of states (including Alaska) have permanent school funds which originated in the nineteenth and early twentieth centuries.<sup>4</sup> Texas has the largest permanent endowment fund for public schools, with assets of \$3 billion.<sup>5</sup> Earnings of this fund generated \$85.10 per pupil in 1981, about 5 percent of the total operating expenditures per pupil in the state.

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<sup>3</sup>These are statewide averages. Many districts do not contribute anything to the support of local schools. Urban districts make the largest local contribution.

<sup>4</sup>These funds are discussed in more detail in Appendix C.

<sup>5</sup>Texas also has a large endowment fund for the University of Texas.



TABLE III.1  
STATE OPERATING BUDGET, FY 1982  
(\$ million)

<u>Category</u>	<u>General Fund</u>	<u>Total Funds<sup>a</sup></u>
Education	\$506.1	\$559.2
University of Alaska	124.8	202.2
Social Services	124.7	236.5
Health	102.8	140.7
Natural Resource Management	117.5	162.2
Public Protection	29.5	38.2
Administration of Justice	128.9	130.3
Development	226.9	250.5
Transportation	161.3	241.7
General Government	404.7	442.0
Total Operating Budget	\$1,927.1	\$2,403.4

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<sup>a</sup>Includes federal revenue, program receipts, special funds, and other revenue sources as well as general fund appropriations.

SOURCE: Executive Budget, Fiscal 1983, Book 1-Operating Budget, p.11.

An educational endowment fund could be structured to minimize the public policy objections to revenue dedication. The dedicated funds would flow to education, a basic state service, rather than to a program that might conceivably be eliminated or drastically reduced in the future. Indeed, the state is likely to expand its financial role in the area of education. Because state expenditures for public education are so large, an endowment fund could realistically generate only a fraction of the total annual expenditure for education.<sup>6</sup> As a result, the legislature would retain ample latitude to adjust educational expenditures in the face of budgetary exigency. Also, the budget category of education is very broad. It presently includes elementary and secondary education programs as well as adult postsecondary support, vocational training, the state library and museum, and other activities (see Table III.2). The legislature would retain budget-making discretion over earmarked revenue within this broad spending category.

### 3. Implication for Local Control of Education

An educational endowment fund would create a new source of state education revenues. There is no link between this source of revenue and the question of legislative control over local school policy that may arise through the spending of state revenue. The state presently pays over 75 percent of the cost of operating schools in the local districts and Rural Educational Attendance Areas (REAs) throughout Alaska. It is the avowed goal of the governor and legislature to entirely supplant local financial contributions to the support of basic educational needs. An endowment fund would not increase the level of state participation in local educational finance, nor in all probability would it hasten the realization of the 100 percent goal. Whether centralized school financing and decentralized school policy making can coexist in the long run is certainly an important public policy issue. The experience to date with REAs suggests that this coexistence is possible. However, the issue is unrelated to the issue of creating a new source of state revenue for education through an endowment fund.

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<sup>6</sup>This issue is discussed in Section IV.

TABLE III.2

BUDGETARY UNITS WITHIN THE CATEGORY OF EDUCATION  
(excluding University of Alaska)

Elementary and Secondary Education

Teacher Retirement  
Foundation Program Components  
Financial Support-Districts  
Financial Support-Other  
Administrative Program Support  
K-12 Education Program Support  
Executive Administration  
Boards, Commissions, and Associations

Education, Information, and Cultural Services

Alaska Historical Commission  
Alaska Council on the Arts  
Alaska State Museum  
Alaska State Library

Adult and Postsecondary Education

Adult and Postsecondary Support  
Skill Center  
Vocational Rehabilitation  
Student Financial Aid  
Alaska Commission on Postsecondary Education

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SOURCE: Executive Budget, Fiscal 1983, p. 29.

#### IV. FISCAL ANALYSIS OF ALTERNATIVE ENDOWMENT FUNDS

Assuming that the creation of the educational endowment fund is good fiscal policy, can the state afford it? How large would an endowment have to be to make a significant contribution to the educational expenses of the state? How might a fund be structured, and how would various structures affect the endowment objectives?

This section examines these and related questions about the fiscal implications of different endowment funds which vary according to such characteristics as origin, timing, performance, and rate of exploitation. The analysis points to the limits of what can reasonably be expected from an endowment fund in terms of its size and ultimate contribution to state educational programs.

##### 1. Two Approaches to Analysis

The fiscal dimension of the endowment fund concept can be approached from two different directions.

One approach is to establish the desired objectives of a fund and then determine the size and other characteristics of the fund that would be required to achieve those objectives. The other approach is to establish a reasonable amount of money that could be committed to building an endowment fund and then determine what the accomplishments of the resulting fund would be. The first is the Target Fund Approach; the second is the Available Revenue Approach. Together they identify the range of feasible alternatives for an endowment fund.

##### Target Fund Approach

Here the analysis focuses on the question, "How much money must be contributed to the fund principal each year to achieve certain endowment objectives?" The answer to this question depends upon certain characteristics of the fund. Thus, there are a number of important independent variables in the analysis. These are:

1. Definition of education expenses to be endowed
2. Portion of education expenses to be paid by the fund's earnings

3. Rate of future growth of educational expenses
4. The year contributions to principal begin
5. The year contributions to principal end
6. The year withdrawals begin
7. The amount of fund earnings that are withdrawn and the amount reinvested
8. The real rate of return on the fund's principal.

Table IV.1 summarizes general fund expenditures for education programs between FY 1978 and FY 1982 (including the Governor's proposed FY 1983 expenditure). Three sets of expenditures are identified: (1) the entire state budgetary category of education (this excludes the University of Alaska, which is a separate state budgetary category); (2) elementary and secondary education, which is the largest subcategory of education; and (3) the foundation program, which is the largest subcategory of elementary and secondary education.<sup>1</sup> These are three possible sets of educational expenditures that an educational permanent fund could attempt to endow.

Because it is not good public policy to earmark revenue to pay 100 percent of the costs of a governmental service (see Appendix B), a lesser portion of one of these sets of expenditures should be established as an endowment objective. For example, an endowment fund might be designed to generate enough revenue to pay 50 percent of all state elementary and secondary expenditures.

Since withdrawals from the endowment fund would presumably not begin for several years after contributions to it were initiated (to allow time for a sufficient accumulation of principal), future educational expenses must be projected. That is, an endowment fund designed to pay 50 percent of elementary and secondary expenditures must do so at some future date. Therefore, the annual rate at which these expenditures would grow is an important variable, and an assumption about this rate of increase must be made for purposes of the analysis.

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<sup>1</sup>See Table III.2 for all of the budgetary units within the category of education.

TABLE IV.1

## GENERAL FUND EXPENDITURES FOR EDUCATION, FY 1978-1983

(million current \$)

<u>Fiscal Year</u>	<u>Total Operating Budget - General Funds</u>	<u>Education Category (excluding UA)</u>	<u>(Percent of Total)</u>	<u>Elementary and Secondary</u>	<u>(Percent of Total)</u>	<u>Foundation Program</u>	<u>(Percent of Total)</u>
1978	750.7	320.2	(42.7)	234.9	(31.3)	166.8	(22.2)
1979	887.6	295.9	(33.3)	278.9	(31.4)	194.5	(21.9)
1980	1,034.8	338.4	(32.7)	311.3	(30.1)	215.5	(20.8)
1981	1,377.1	432.8	(31.4)	390.6	(28.4)	267.4	(19.4)
1982	1,927.1	506.1	(26.3)	458.0	(23.8)	348.4	(18.1)
1983 <sup>1</sup>	2,104.3	561.4	(26.7)	533.8	(25.4)	408.0	(19.4)

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<sup>1</sup>Governor's Request (Editor's Note: This request was reduced in March 1982, in the light of revised revenue forecasts.)

SOURCE: Executive Budgets, FY 1980-1983

A key set of variables are the dates at which (1) contributions to the fund principal would begin, (2) when they would end (if ever), and (3) when withdrawals would begin. For example, a fund might be designed to receive contributions for a five-year period during which time it would reinvest all of its earnings. At the end of the period, contributions to the fund's principal would cease except for that portion of earnings reinvested.

Major considerations in the design of an endowment fund are (1) what portion of earnings should be used to support educational programs and (2) what portion of earnings should be reinvested. None of the computer simulations in this report withdraws principal. If 100 percent of the fund's income were spent, a smaller fund corpus would be required to meet the endowment objective in the year that withdrawals commence. However, the value of the corpus would erode from the effects of inflation in this case, so the fund would cover a steadily diminishing proportion of education expenses. If, on the other hand, only the earnings in excess of inflation (the real earnings) were spent and the remainder were reinvested, the value of the corpus would maintain itself over time. However, in this case, a substantially larger corpus would be required to meet a given endowment objective.

A last variable of obvious importance is the real rate of return on the fund's investments (the return in excess of inflation). In the long run, it seems reasonable to expect a real rate of return of about 2 or 3 percent annually.

#### Available Revenue Approach

Here the analysis focuses on the question, "What could an educational endowment fund accomplish if it were created by certain annual contributions?" The dependent variable in this approach is the percentage of educational expenses paid for by fund earnings, which is one of the independent variables in the Target Fund Approach. The annual contribution is an independent variable in this approach whereas it is the dependent variable in the Target Fund Approach.

An even greater number of independent variables influence the outcome of the Available Revenue analysis than influence the outcome of the Target Fund analysis. These are:

1. Definition of education expenses to be endowed
2. Rate of future growth of these expenses
3. The year contributions to principal begin
4. The year contributions to principal end
5. The year withdrawals begin
6. The amount of fund earnings that are withdrawn and the amount reinvested
7. The revenue base from which contributions are made
8. The rate of contributions from the revenue base
9. The real rate of return on the fund's principal
10. Petroleum revenue projections
11. General fund expenditure patterns.

Independent variables unique to the Available Revenue analysis are (7), (8), (10), and (11).

A plausible method of creating an endowment fund is to set aside annually a certain portion of a certain category of revenue. The Permanent Fund, for example, is built with a yearly contribution of at least 25 percent of nontax petroleum income (royalties, rental payments, and lease bonuses). The possible contribution bases used in this analysis are nontax petroleum income; general fund current account surplus (state revenue in excess of that legally spendable without voter approval under the proposed spending limit); and Permanent Fund earnings. Different proportions of these revenue categories (variable [8]) could be assigned to the fund. For example, the corpus of the fund might be built by contributions of 50 percent of the annual general fund current account surplus.

The key to the question of economic feasibility of an educational endowment fund is, of course, the state's public wealth. This wealth is a function of petroleum-related income which is, in turn, a function of the world market for oil (see Appendix A). Thus, the critical variable in the fiscal analysis of alternative endowment funds is petroleum



revenue projections. Two revenue assumptions are used in the following computer simulations: one is the long-term revenue forecast by the Department of Revenue issued in January 1982 (DOR 1/82); the other is an across-the-board reduction of these figures in proportion to the short-term revenue projections issued by the Legislative Finance Division in February 1982 (LF 2/82). (See Appendix A.)

Availability of state revenue from a general fund surplus account depends upon the general spending pattern of the legislature. Therefore, some set of "spending rules" must be assumed. For purposes of the following analysis, it is assumed that the spending limit as described in the proposed constitutional amendment is observed, either as a legal requirement or as a de facto constraint to legislative appropriations.

## 2. Computer Simulations

The number of possible fund structures that can be created from variables identified above is clearly enormous. Also, other variables could be used in the analysis, such as withdrawals of principal as well as investment income. Only a small, representative sample has been analyzed by the MAP model. (The MAP model is discussed in Appendix B.) However, these sample cases illustrate general patterns and trends which suggest the boundaries of reasonable expectation for any endowment fund. Additional simulation will be necessary when petroleum prices have stabilized and more confident, long-term revenue projections are available.

Table IV.2 summarizes the cases analyzed by the Target Fund Approach. Table IV.3 summarizes cases analyzed by the Available Revenue approach. A detailed description of the computer analysis of each case follows Table IV.3.

In Table IV.2, there is one base case (1 [a]) and two variations of it which test the sensitivity of key variables. In Table IV.3, there are three base cases (2 [a], 3 [a], and 4 [a]) and variations of them that also test the sensitivities of one or more important variables.

Note that there are some common elements to all of the base cases. Each base case uses FY 1982 elementary and secondary education expenditures as the endowment objective. These expenditures are approximately 91 percent of the total general fund expenditures for education and approximately 130 percent of the foundation program expenditures (see Table IV.1). Thus, the factors .90 and 1.3 may be applied

TABLE IV.2

SUMMARY OF ENDOWMENT FUND SIMULATIONS  
(TARGET FUND ANALYSIS)

Case No.	Independent Variables						Dependent Variable	
	Target Coverage <sup>1</sup>	Contributions Begin	Contributions End	Withdrawal Begins <sup>2</sup>	Amount Withdrawn	Real Rate of Return	Revenue Projections <sup>3</sup>	Annual Contribution
1 (a)	50%	1986	1990	1991	Real Earnings	2%	LF 2/82	\$5 Billion
(b)					Total Earnings			\$1 Billion
(c)							DOR 1/82	\$5 Billion
(d)	40%							\$4.2 Billion

<sup>1</sup>See Glossary.

<sup>2</sup>Earnings of the fund are reinvested prior to the commencement of withdrawals.

<sup>3</sup>Revenue projections do not influence the dependent variable. However, they influence general fund revenues, which are shown in the computer case simulations (general fund expenditures are assumed to be constrained by the spending limit). LF is the projection by the Legislative Finance Division; DOR is the projection by the Department of Revenue. See Appendix A.

NOTE: Where no entry is shown, it is the same as the base case (a) of the series.

TABLE IV.3

SUMMARY OF ENDOWMENT FUND SIMULATIONS  
(AVAILABLE REVENUE APPROACH)

Case No.	Independent Variables							Dependent Variable			
	Contribution Begins	Contribution Ends	Withdrawal Begins <sup>1</sup>	Amount Withdrawn	Contribution Base	Contribution Rate	Real Rate of Return <sup>2</sup>	Revenue Projections	General Fund Expenditure Patterns	Coverage <sup>3</sup>	(Peak Year)
2 (a)	1986	When Surplus Ends	1990	Real Earnings	G.F. Current Account Surplus	25%	3%	LF 3/82	Constitutional Limit	1.4%	(1991)
(b)						50%				2.8%	(1991)
(c)				Total Earnings						4.8%	(1991)
(d)							2%			4.3%	(1991)
(e)						50%		DOR 1/82		41.9%	(1997)
3 (a)	1986	When Surplus Ends	1990	Total Earnings	Non-Tax Petroleum Revenue	25%	3%	LF 2/82	5/6 Constitutional Limit	32.8%	(1996)
(b)							2%			29.5%	(1996)
(c)				Real Earnings						13.1%	(1996)
(d)								DOR 1/82		54.3	(1996)
4 (a)	1986	Do not end	1990	Real Earnings	Permanent Fund Earnings	50%	3%	LF 2/82	Constitutional Limit	21.2%	(2005)
(b)				Total Earnings						42.6%	(2005)
(c)							2%	DOR 1/82		18.8%	(2005)

<sup>1</sup>Earnings of the fund are reinvested prior to the commencement of withdrawals.<sup>2</sup>LF is the projection by the Legislative Finance Division; DOR is the projection by the Department of Revenue. See Appendix A.<sup>3</sup>See Glossary.

to the outcome of each case to estimate the outcome for these alternative endowment fund objectives.

Annual growth of education expenditures is assumed to equal the annual rate of inflation plus the annual rate of population growth.<sup>2</sup> These rates are calculated by the MAP model and consequently vary from year to year. They are the same rates that determine spending under the spending limit. Thus, education expenses increase at the same pace as the spending limit.

Contributions are assumed to begin in fiscal year 1986 in all cases. This is the earliest that contributions could begin if a constitutional amendment were adopted in the second session of the Twelfth Legislature (1983) and ratified by the voters at the following general election (Fall 1984; fiscal year 1985).

Earnings of the fund are reinvested prior to the beginning of withdrawals.

#### Cases 1 (a), (b), and (c): The Target Fund Approach

The base case shows that \$5 billion would have to be deposited in the endowment fund annually between 1986 and 1990 to create a self-sustaining fund that would pay 50 percent of annual state elementary and secondary education expenses from 1991 (assuming 2 percent real rate of return). This is clearly an impossible objective under the recent revenue estimates of Legislative Finance (2/82), as the required annual contribution exceeds the total general fund income for the years FY 1986-90. Note that this hypothetical fund is actually not entirely self-sustaining. The percentage of education costs paid by the endowment earnings

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<sup>2</sup>Our assumption is that all major categories of the state budget would grow at an annual average of approximately the same rate as the spending limit. This is in the neighborhood of 9 to 12 percent (annual inflation and population growth are computed by the MAP model). Note in Table IV.1 that annual expenditures for education generally grew faster than this between 1978 and 1982. For example, expenditures for elementary and secondary education grew 18.7 percent between fiscal year 1978 and 1979; 11.6 percent between fiscal year 1979 and 1980; 25.5 percent between fiscal year 1980 and 1981; and 17.3 percent between fiscal year 1981 and 1982. This was a period during which state-wide enrollment declined slightly.

declines slowly (from 51.1 percent in 1990 to 43.6 percent in 2005) even though only the real earnings are withdrawn. This phenomenon, common to all cases where real earnings are withdrawn, results from the fact that real expenditures are increasing because of population growth, whereas real fund earnings remain constant after contributions cease.

Case 1 (b) shows that approximately 50 percent of elementary and secondary education expenses could be paid by fund earnings in 1991 with an annual contribution of \$1 billion between fiscal year 1986 and 1990 if all of the earnings were withdrawn from the fund. In this case, however, the value of the fund principal erodes rapidly (from 48.7 percent in 1991 to 14.5 percent in 2005).

Case 1 (c) is identical to 1 (a) except that state general fund revenues are higher. Greater state income does not affect the size of the required annual contribution (\$5 billion), but it may affect the political and economic feasibility of an ambitious fund.

Case 1 (d) indicates the sensitivity of the annual contribution to changes in the endowment objective. A target endowment objective of 40 percent of elementary and secondary expenses would require annual contributions of \$4.2 billion under assumptions similar to the base case.

Cases 2 (a), (b), (c), and (e):  
Investing General Fund Current Account Surplus

These cases examine the fund that would result from annual contributions of a portion of the general fund current account surplus (revenues in excess of expenditures made under the spending limit). In a situation of high petroleum prices and, therefore, ample state revenues, this would be a relatively painless method of creating an educational trust fund. This is because the money would be in excess of that which could be appropriated by the legislature alone under the spending limit. Here the critical variable is state petroleum revenues. Under the LF 2/82 forecast, no more than 4.8 percent of education expenses would be paid by fund earnings (case 2 [c]), and this amount would decline rapidly because all of the fund earnings would be withdrawn.

Case 2 (e) shows that under revenue assumptions of DOR 1/82, if 50 percent of the current account surplus were dedicated to the fund principal, real earnings would be able to cover almost 42 percent of state expenditures for elementary and secondary education.

### Cases 3 (a), (b), (c), and (d): Investing Royalty Income

These cases explore the possibility of creating a fund from a share of the state's annual royalty (nontax petroleum) income. The contribution base is the same as that of the existing Permanent Fund. However, contributions would cease when there was no longer a current account surplus. In order to extend the period over which contributions to the fund are made, the spending limit has been lowered by one sixth. These cases are also sensitive to petroleum revenue forecasts, but not nearly so sensitive as the set of cases 2 (a) through (e) where contributions are restricted to revenues in excess of expenditures. In this series of cases, the contribution "comes off the top"; that is, the contribution reduces the amount of money available to the legislative appropriation process.

The critical variable in this series of cases is the amount of withdrawals: protecting the long-term value of the corpus by withdrawing only real earnings dramatically decreases the fund's ability to pay education expenses in each year but allows payments to continue longer (from 32.8 percent annually withdrawing total earnings in case 3 [a] to 13.1 percent in case 3 [c]).

### Cases 4 (a), (b), and (c): Investing Permanent Fund Earnings

This set of cases examines potential endowment funds built from earnings of the Alaska Permanent Fund. Half of the Fund's earnings are currently dedicated to the per capita dividend distribution program. This series of cases dedicates the remaining half to the corpus of an endowment fund. In the base case, half of the earnings of the Permanent Fund are contributed to the principal of the endowment in perpetuity beginning in 1986. Withdrawals from the fund begin in 1990. Note that the percentage of educational funds covered grows steadily. It reaches 21.2 percent in case 4 (a) at the end of the simulation period (2005). However, early in the program, the contribution of earnings to state education programs is small (4.3 percent in 1990). In the long run, the outcome of this approach to building an endowment fund is very sensitive to interest earnings of the fund. The ultimate achievement of case 4 (c), which earns at 2 percent, is less than case 4 (a), which earns at 3 percent, even though petroleum revenues are substantially higher in 4 (c).

### 3. Conclusions

Table IV.3 suggests that an endowment fund might reasonably be expected to pay between approximately 13 percent and 55 percent of state expenses for elementary and secondary education (12 to 50 percent of general education expenses; 17 to 72 percent of foundation program expenses).

Of the twelve computer simulations shown in Table IV.3, case 3(d) makes the largest contribution to elementary and secondary education expenses: 54.3 percent coverage in 1996. However, total earnings of the fund are withdrawn in this case, which means that the percentage of coverage would decline substantially after 1996. Also, this case assumes that the optimistic revenue projections (DOR 1/82) prevail.

Case 2(e) is another one near the upper limit of the hypothetical funds examined. Here 41.9 percent of elementary and secondary education expenses are covered in 1997. This case builds the corpus of the fund from the general fund current account surplus (50 percent contribution rate), whereas case 3(d) builds its corpus from royalty income (25 percent contribution rate). This promising case withdraws real earnings only (so the corpus retains its relative value in the long run), but it too requires the optimistic revenue projections to be met.

Case 4(b) is also promising (42.6 percent coverage), but its productivity is not realized for many years (2005).

At the lower end of the scale are cases 2(a), 2(b), 2(c), and 2(d). These are built from the general fund current account surplus, which under the pessimistic revenue projections (LF 2/82) is small. Case 3(c) makes a modest but presumably worthwhile contribution to public education expenses (13.1 percent of elementary and secondary expenses in 1996). This case withdraws only real earnings, and it can be built under the pessimistic revenue projections. It would resemble the Alaska Permanent Fund in that it would be built by 25 percent of the state's royalty income.

## GLOSSARY

Contribution Rate - The annual contribution to the principal of the fund is derived from this percentage of the contribution base as specified in the base case (a) of Table IV.3 (i.e. either general fund current account surplus, nontax petroleum revenue, or Permanent Fund earnings).

Annual Contribution - This is the amount contributed yearly to the fund principal calculated by the contribution rate multiplied by the contribution base.

Total Contribution - This is the total yearly contribution to the fund's principal; it includes annual contribution plus annual earnings that are reinvested.

Earnings - This is the annual earning on the investments of the fund principal.

Real Earnings - This is the annual earning of the fund principal net of annual inflation.

Fund Balance - This is the fund's principal (also referred to as the corpus of the fund).

Withdrawals - This is the amount of earnings withdrawn annually (in the computer simulations it is either the total earnings or the real earnings, although it could be another amount, for example half of the annual interest earnings).

E & S Ed. Expenses - These are state expenses for support of elementary and secondary education (a subcategory within the general state budgetary category of education--see Table IV.1) which are assumed to be the endowment objective of the fund.

Coverage - This is the percentage of educational expenses paid for by annual withdrawals from the fund (withdrawals divided by E & S Ed. Expenses).

G. F. Revenues - Annual general fund revenues.



ENDOWMENT FUND SIMULATION  
CASE NO. 1 (a)

<u>Year</u>	<u>Annual Contribution</u>	<u>Total Contributions</u>	<u>Earnings</u>	<u>Real Earnings</u>	<u>Fund Balance</u>
1982	0.	0.	0.	0.	0.
1983	0.	0.	0.	0.	0.
1984	0.	0.	0.	0.	0.
1985	0.	0.	0.	0.	0.
1986	5000.	5000.	0.	0.	5000.
1987	5000.	5475.	475.	52.613	10475.
1988	5000.	5995.12	995.124	176.855	16470.1
1989	5000.	6564.66	1564.66	292.258	23034.8
1990	5000.	7188.3	2188.3	420.388	30223.1
1991	0.	2267.88	2871.19	603.313	32491.
1992	0.	2445.27	3086.64	641.365	34936.2
1993	0.	2601.45	3318.94	717.488	37537.7
1994	0.	2774.4	3566.08	791.677	40312.1
1995	0.	2986.41	3829.65	843.231	43298.5
1996	0.	3200.59	4113.35	912.761	46499.1
1997	0.	3428.4	4417.41	989.012	49927.5
1998	0.	3704.69	4743.11	1038.41	53632.2
1999	0.	3969.92	5095.05	1125.13	57602.1
2000	0.	4260.65	5472.2	1211.54	61862.7
2001	0.	4604.12	5876.96	1272.84	66466.8
2002	0.	4930.36	6314.34	1383.99	71397.1
2003	0.	5293.14	6782.72	1489.57	76690.2
2004	0.	5681.32	7285.57	1604.25	82371.6
2005	0.	6102.51	7825.29	1722.78	88474.1

<u>Year</u>	<u>Withdrawal</u>	<u>E &amp; S Ed. Expenses</u>	<u>Coverage</u>	<u>General Fund Revenues</u>
1982	0.	458.	0.	4437.92
1983	0.	523.004	0.	2848.31
1984	0.	586.375	0.	3350.97
1985	0.	672.728	0.	4291.12
1986	0.	771.833	0.	4871.41
1987	0.	848.583	0.	5074.71
1988	0.	909.595	0.	4720.31
1989	0.	988.986	0.	5027.76
1990	0.	1076.34	0.	4495.25
1991	603.313	1179.69	0.511	4623.92
1992	641.365	1287.42	0.498	4522.13
1993	717.488	1401.55	0.512	5001.36
1994	791.677	1530.7	0.517	4949.08
1995	843.231	1669.86	0.505	4453.15
1996	912.761	1822.95	0.501	3995.69
1997	989.012	1991.92	0.497	3826.52
1998	1038.41	2170.68	0.478	3314.49
1999	1125.13	2367.4	0.475	2587.37
2000	1211.54	2582.37	0.469	1644.83
2001	1272.84	2809.46	0.453	506.151
2002	1383.99	3059.98	0.452	-826.528
2003	1489.57	3353.04	0.447	-2433.03
2004	1604.25	3651.09	0.442	-4485.75
2005	1722.78	3955.19	0.436	-6616.62

Table IV-2 describes the elements of this case. See the Glossary for explanation of the terms used on this page.

ENDOWMENT FUND SIMULATION  
CASE NO. 1 (b)

<u>Year</u>	<u>Annual Contribution</u>	<u>Total Contribution</u>	<u>Earnings</u>	<u>Real Earnings</u>	<u>Fund Balance</u>
1982	0.	0.	0.	0.	0.
1983	0.	0.	0.	0.	0.
1984	0.	0.	0.	0.	0.
1985	0.	0.	0.	0.	0.
1986	1000.	1000.	0.	0.	1000.
1987	1000.	1095.	95.	10.523	2095.
1988	1000.	1199.02	199.025	35.371	3294.02
1989	1000.	1312.93	312.932	58.452	4606.95
1990	1000.	1437.66	437.66	84.078	6044.61
1991	0.	0.	574.238	120.663	6044.61
1992	0.	0.	574.238	119.319	6044.61
1993	0.	0.	574.238	124.139	6044.61
1994	0.	0.	574.238	127.482	6044.61
1995	0.	0.	574.238	126.439	6044.61
1996	0.	0.	574.238	127.424	6044.61
1997	0.	0.	574.238	128.566	6044.61
1998	0.	0.	574.238	125.718	6044.61
1999	0.	0.	574.238	126.808	6044.61
2000	0.	0.	574.238	127.136	6044.61
2001	0.	0.	574.238	124.369	6044.61
2002	0.	0.	574.238	125.862	6044.61
2003	0.	0.	574.238	126.11	6044.61
2004	0.	0.	574.238	126.445	6044.61
2005	0.	0.	574.238	126.421	6044.61

<u>Year</u>	<u>Withdrawal</u>	<u>E &amp; S Ed. Expenses</u>	<u>Coverage</u>	<u>General Fund Revenues</u>
1982	0.	458.	0.	4437.92
1983	0.	523.004	0.	2848.31
1984	0.	586.375	0.	3350.97
1985	0.	672.728	0.	4291.12
1986	0.	771.633	0.	4871.41
1987	0.	848.583	0.	5454.71
1988	0.	909.595	0.	5516.41
1989	0.	988.986	0.	6279.49
1990	0.	1076.34	0.	6245.89
1991	574.238	1179.69	0.487	6891.8
1992	574.238	1287.42	0.446	6967.41
1993	574.238	1401.55	0.41	7602.82
1994	574.238	1530.7	0.375	7723.48
1995	574.238	1669.86	0.344	7439.57
1996	574.238	1822.95	0.315	7196.26
1997	574.238	1991.92	0.288	7254.92
1998	574.238	2170.68	0.265	7019.18
1999	574.238	2367.4	0.243	6557.29
2000	574.238	2582.37	0.222	5905.48
2001	574.238	2809.46	0.204	5110.27
2002	574.238	3059.98	0.188	4103.82
2003	574.238	3313.04	0.172	2860.11
2004	574.238	3631.09	0.158	1195.57
2005	574.238	3955.19	0.145	-514.114

Table IV-2 describes the elements of this case. See the Glossary for explanation of the terms used on this page.

<u>Year</u>	<u>Annual Contribution</u>	<u>Total Contribution</u>	<u>Earnings</u>	<u>Real Earnings</u>	<u>Fund Balance</u>
1982	0.	0.	0.	0.	0.
1983	0.	0.	0.	0.	0.
1984	0.	0.	0.	0.	0.
1985	0.	0.	0.	0.	0.
1986	5000.	5000.	0.	0.	5000.
1987	5000.	5475.	475.	53.194	10475.
1988	5000.	5995.12	995.124	178.044	16470.1
1989	5000.	6564.66	1564.66	294.158	23034.8
1990	5000.	7188.3	2188.3	423.09	30223.1
1991	0.	2264.77	2871.19	606.426	32487.8
1992	0.	2441.97	3086.34	644.371	34929.8
1993	0.	2598.34	3318.33	719.988	37528.2
1994	0.	2771.37	3565.17	793.803	40299.5
1995	0.	2983.25	3828.45	845.198	43282.8
1996	0.	3197.61	4111.86	914.246	46480.4
1997	0.	3425.56	4415.63	990.077	49905.9
1998	0.	3701.58	4741.06	1039.49	53607.5
1999	0.	3966.87	5092.71	1125.84	57574.4
2000	0.	4257.5	5469.56	1212.06	61831.9
2001	0.	4600.52	5874.02	1273.5	66432.4
2002	0.	4926.91	6311.07	1384.16	71359.2
2003	0.	5289.73	6779.12	1489.4	76648.9
2004	0.	5677.89	7281.64	1603.75	82326.8
2005	0.	6099.04	7821.04	1722.	88425.8

<u>Year</u>	<u>Withdrawal</u>	<u>E &amp; S Ed. Expenses</u>	<u>Coverage</u>	<u>General Fund Revenues</u>
1982	0.	458.	0.	4437.92
1983	0.	523.004	0.	4106.4
1984	0.	586.518	0.	5015.75
1985	0.	673.178	0.	6398.95
1986	0.	772.736	0.	7428.27
1987	0.	850.089	0.	8209.08
1988	0.	911.872	0.	8163.3
1989	0.	992.166	0.	9071.29
1990	0.	1080.58	0.	8840.48
1991	606.426	1165.14	0.512	9237.83
1992	644.371	1294.21	0.498	9547.36
1993	719.988	1409.8	0.511	10547.2
1994	793.803	1540.55	0.515	11032.6
1995	845.198	1681.44	0.503	10884.
1996	914.246	1836.42	0.498	10934.4
1997	990.077	2007.39	0.493	11586.2
1998	1039.49	2188.33	0.475	11858.3
1999	1125.84	2387.41	0.472	11969.8
2000	1212.06	2604.98	0.465	11924.
2001	1273.5	2834.87	0.449	11753.5
2002	1384.16	3088.45	0.448	11477.4
2003	1489.4	3344.81	0.443	11024.6
2004	1603.75	3666.44	0.437	10231.7
2005	1722.	3994.41	0.431	9476.64

Table IV-2 describes the elements of this case. See the Glossary for explanation of the terms used on this page.

ENDOWMENT FUND SIMULATION  
CASE NO. 1 (d)

<u>Year</u>	<u>Annual Contribution</u>	<u>Total Contribution</u>	<u>Earnings</u>	<u>Real Earnings</u>	<u>Fund Balance</u>
1982	0.	0.	0.	0.	0.
1983	0.	0.	0.	0.	0.
1984	0.	0.	0.	0.	0.
1985	0.	0.	0.	0.	0.
1986	4200.	4200.	0.	0.	4200.
1987	4200.	4599.	399.	44,195	8799.
1988	4200.	5035.9	835,904	148,558	13834.9
1989	4200.	5514.31	1314.31	245,496	19349.2
1990	4200.	6038.17	1838.17	353,126	25367.4
1991	0.	1905.02	2411.8	506,783	27292.4
1992	0.	2054.03	2592.78	538,747	29346.4
1993	0.	2185.22	2787.91	602.69	31531.6
1994	0.	2330.5	2995.51	665,009	33862.1
1995	0.	2509.59	3216.9	708,314	36370.7
1996	0.	2688.5	3455.22	766,719	39059.2
1997	0.	2879.85	3710.62	830.77	41939.1
1998	0.	3111.95	3984.21	872,265	45051.
1999	0.	3334.74	4279.84	945,109	48585.8
2000	0.	3578.95	4596.64	1017.7	51944.7
2001	0.	3867.46	4936.64	1069.19	55832.2
2002	0.	4141.5	5304.05	1162.55	59973.7
2003	0.	4446.25	5697.49	1251.24	64419.9
2004	0.	4772.31	6119.89	1347.57	69192.2
2005	0.	5126.12	6573.25	1447.14	74318.2

<u>Year</u>	<u>Withdrawal</u>	<u>E &amp; S Ed. Expenses</u>	<u>Coverage</u>	<u>General Fund Revenues</u>
1982	0.	458.	0.	4437.92
1983	0.	523.004	0.	2848.31
1984	0.	586.375	0.	3350.97
1985	0.	672.728	0.	4291.12
1986	0.	771.833	0.	4871.41
1987	0.	848.583	0.	5150.71
1988	0.	909.595	0.	4679.53
1989	0.	988.986	0.	5278.11
1990	0.	1076.34	0.	4845.37
1991	506,783	1,179.69	0.43	4986.78
1992	538,747	1,287.42	0.418	4913.38
1993	602.69	1,401.55	0.43	5417.59
1994	665,009	1,530.7	0.434	5392.98
1995	708,314	1,669.86	0.424	4930.98
1996	766,719	1,822.95	0.421	4507.78
1997	830.77	1,991.92	0.417	4375.07
1998	872,265	2,170.68	0.402	3907.23
1999	945,109	2,367.4	0.399	3222.56
2000	1,017.7	2,582.37	0.394	2326.53
2001	1,069.19	2,809.46	0.381	1,242.81
2002	1,162.55	3,059.98	0.38	-37,672
2003	1,251.24	3,333.04	0.375	-1586.14
2004	1,347.57	3,631.09	0.371	-3576.74
2005	1,447.14	3,955.19	0.366	-5640.23

Table IV-2 describes the elements of this case. See the Glossary for explanation of the terms used on this page.

ENDOWMENT FUND SIMULATION  
CASE NO. 2 (a)

<u>Year</u>	<u>Contribution Rate</u>	<u>Total Contribution</u>	<u>Earnings</u>	<u>Real Earnings</u>	<u>Fund Balance</u>
1982	0.	0.	0.	0.	0.
1983	0.	0.	0.	0.	0.
1984	0.	0.	0.	0.	0.
1985	0.	0.	0.	0.	0.
1986	0.25	66.29	0.	0.	66.29
1987	0.25	127.675	6.96	1.36	194.166
1988	0.25	86.12	20.387	5.22	280.285
1989	0.25	193.847	29.43	7.776	474.132
1990	0.25	92.303	49.784	13.394	566.434
1991	0.25	42.504	59.476	16.972	608.938
1992	0.25	45.829	63.938	18.11	654.767
1993	0.25	48.756	68.75	19.995	703.522
1994	0.25	51.997	73.87	21.873	755.52
1995	0.25	55.971	79.33	23.359	811.49
1996	0.25	59.985	85.206	25.222	871.475
1997	0.25	64.254	91.505	27.251	935.729
1998	0.25	69.433	98.251	28.819	1005.16
1999	0.25	74.403	105.542	31.139	1079.56
2000	0.25	79.852	113.354	33.502	1159.42
2001	0.25	86.289	121.739	35.449	1245.71
2002	0.25	92.404	130.799	38.395	1338.11
2003	0.25	99.203	140.501	41.298	1437.31
2004	0.25	106.478	150.918	44.44	1543.79
2005	0.25	114.372	162.098	47.726	1658.16

<u>Year</u>	<u>Withdrawal</u>	<u>E &amp; S Ed. Expenses</u>	<u>Coverage</u>	<u>General Fund Revenues</u>
1982	0.	458.	0.	4437.92
1983	0.	523.004	0.	2848.31
1984	0.	586.375	0.	3350.97
1985	0.	672.728	0.	4291.12
1986	0.	771.833	0.	4871.41
1987	0.	848.583	0.	5543.42
1988	0.	909.595	0.	5697.05
1989	0.	988.986	0.	6566.05
1990	15.574	1076.34	0.012	6652.44
1991	16.972	1179.69	0.014	6856.01
1992	18.11	1287.42	0.014	6929.35
1993	19.995	1401.55	0.014	7563.03
1994	21.873	1530.7	0.014	7681.79
1995	23.359	1669.66	0.014	7395.4
1996	25.222	1822.95	0.014	7149.78
1997	27.251	1991.92	0.014	7206.04
1998	28.819	2170.68	0.013	6967.22
1999	31.139	2367.4	0.013	6502.71
2000	33.502	2582.37	0.013	5848.06
2001	35.449	2809.46	0.013	5049.36
2002	38.395	3059.98	0.013	4040.08
2003	41.298	3333.04	0.012	2793.22
2004	44.44	3631.09	0.012	1125.46
2005	47.726	3935.19	0.012	-587.31

Table IV-3 describes the elements of this case. See the Glossary for explanation of the terms used on this page.

ENDOWMENT FUND SIMULATION  
CASE NO. 2 (b)

<u>Year</u>	<u>Contribution Rate</u>	<u>Total Contribution</u>	<u>Earnings</u>	<u>Real Earnings</u>	<u>Fund Balance</u>
1982	0.	0.	0.	0.	0.
1983	0.	0.	0.	0.	0.
1984	0.	0.	0.	0.	0.
1985	0.	0.	0.	0.	0.
1986	0.5	132.58	0.	0.	132.58
1987	0.5	252.603	13.921	2.721	385.183
1988	0.5	162.868	40.444	10.355	548.051
1989	0.5	373.785	57.545	15.206	921.836
1990	0.5	167.899	96.793	26.042	1089.73
1991	0.5	81.771	114.422	32.651	1171.51
1992	0.5	88.168	123.008	34.84	1259.67
1993	0.5	93.799	132.266	38.467	1353.47
1994	0.5	100.035	142.115	42.08	1453.51
1995	0.5	107.679	152.618	44.939	1561.19
1996	0.5	115.402	163.925	48.523	1676.59
1997	0.5	123.616	176.042	52.426	1800.2
1998	0.5	133.578	189.021	55.443	1933.58
1999	0.5	143.141	203.047	59.906	2076.52
2000	0.5	153.624	218.077	64.453	2230.55
2001	0.5	166.008	234.207	68.199	2396.55
2002	0.5	177.771	251.638	73.867	2574.32
2003	0.5	190.852	270.304	79.452	2765.18
2004	0.5	204.848	290.343	85.495	2970.02
2005	0.5	220.035	311.852	91.817	3190.06

<u>Year</u>	<u>Withdrawal</u>	<u>E &amp; S Ed. Expenses</u>	<u>Coverage</u>	<u>General Fund Revenues</u>
1982	0.	458.	0.	4437.92
1983	0.	523.004	0.	2848.31
1984	0.	586.375	0.	3350.97
1985	0.	672.728	0.	4291.12
1986	0.	771.833	0.	4871.41
1987	0.	848.583	0.	5537.12
1988	0.	909.595	0.	5678.96
1989	0.	988.986	0.	6540.86
1990	26.042	1076.34	0.024	6623.09
1991	32.651	1179.69	0.028	6822.98
1992	34.84	1287.42	0.027	6894.23
1993	38.467	1401.55	0.027	7526.32
1994	42.08	1530.7	0.027	7643.53
1995	44.939	1669.86	0.027	7354.66
1996	48.523	1822.95	0.027	7106.89
1997	52.426	1991.92	0.026	7160.95
1998	55.443	2170.68	0.026	6919.29
1999	59.906	2367.4	0.025	6452.37
2000	64.453	2582.37	0.025	5795.14
2001	68.199	2809.46	0.024	4993.2
2002	73.867	3059.98	0.024	3981.3
2003	79.452	3353.04	0.024	2731.53
2004	85.495	3651.09	0.024	1060.82
2005	91.817	3955.19	0.023	-655.345

Table IV-3 describes the elements of this case. See the Glossary for explanation of the terms used on this page.

ENDOWMENT FUND SIMULATION  
CASE NO. 2 (c)

<u>Year</u>	<u>Contribution Rate</u>	<u>Total Contribution</u>	<u>Earnings</u>	<u>Real Earnings</u>	<u>Fund Balance</u>
1971	0.	0.	0.	0.	0.
1972	0.	0.	0.	0.	0.
1973	0.	0.	0.	0.	0.
1974	0.	0.	0.	0.	0.
1975	0.25	66.29	0.	0.	66.29
1976	0.25	127.875	6.96	1.36	194.166
1977	0.25	86.12	20.387	5.22	260.285
1978	0.25	193.847	29.43	7.776	474.132
1979	0.25	65.011	49.784	13.394	539.143
1980	0.25	0.	56.61	16.154	539.143
1981	0.25	0.	56.61	16.034	539.143
1982	0.25	0.	56.61	16.464	539.143
1983	0.25	0.	56.61	16.762	539.143
1984	0.25	0.	56.61	16.669	539.143
1985	0.25	0.	56.61	16.757	539.143
1986	0.25	0.	56.61	16.859	539.143
1987	0.25	0.	56.61	16.605	539.143
1988	0.25	0.	56.61	16.702	539.143
1989	0.25	0.	56.61	16.731	539.143
1990	0.25	0.	56.61	16.484	539.143
1991	0.25	0.	56.61	16.618	539.143
1992	0.25	0.	56.61	16.64	539.143
1993	0.25	0.	56.61	16.669	539.143
1994	0.25	0.	56.61	16.667	539.143

<u>Year</u>	<u>Withdrawal</u>	<u>E &amp; S Ed. Expenses</u>	<u>Coverage</u>	<u>General Fund Revenues</u>
1971	0.	458.	0.	4437.92
1972	0.	523.004	0.	2848.31
1973	0.	586.375	0.	3550.97
1974	0.	672.728	0.	4291.12
1975	0.	771.833	0.	4871.41
1976	0.	848.583	0.	5543.42
1977	0.	909.595	0.	5697.05
1978	0.	988.986	0.	6566.05
1979	49.784	1076.34	0.046	6688.83
1980	56.61	1179.69	0.048	6898.24
1981	56.61	1287.42	0.044	6974.46
1982	56.61	1401.55	0.04	7610.54
1983	56.61	1530.7	0.037	7731.93
1984	56.61	1669.86	0.034	7448.82
1985	56.61	1822.95	0.031	7206.41
1986	56.61	1991.92	0.028	7266.02
1987	56.61	2170.68	0.026	7031.35
1988	56.61	2367.4	0.024	6570.59
1989	56.61	2582.37	0.022	5920.03
1990	56.61	2809.46	0.02	5126.22
1991	56.61	3059.98	0.019	4121.27
1992	56.61	3313.04	0.017	2879.34
1993	56.61	3631.09	0.016	1216.59
1994	56.61	3975.19	0.014	-491.17

Table IV-3 describes the elements of this case. See the Glossary for explanation of the terms used on this page.

ENDOWMENT FUND SIMULATION  
CASE NO. 2 (d)

<u>Year</u>	<u>Contribution Rate</u>	<u>Total Contribution</u>	<u>Earnings</u>	<u>Real Earnings</u>	<u>Fund Balance</u>
1982	0.	0.	0.	0.	0.
1983	0.	0.	0.	0.	0.
1984	0.	0.	0.	0.	0.
1985	0.	0.	0.	0.	0.
1986	0.25	66.29	0.	0.	66.29
1987	0.25	127.212	6.298	0.698	193.502
1988	0.25	84.116	18.383	3.267	277.618
1989	0.25	190.791	26.374	4.926	468.408
1990	0.25	63.69	44.499	8.549	532.099
1991	0.25	0.	50.549	10.622	532.099
1992	0.25	0.	50.549	10.504	532.099
1993	0.25	0.	50.549	10.928	532.099
1994	0.25	0.	50.549	11.222	532.099
1995	0.25	0.	50.549	11.13	532.099
1996	0.25	0.	50.549	11.217	532.099
1997	0.25	0.	50.549	11.317	532.099
1998	0.25	0.	50.549	11.067	532.099
1999	0.25	0.	50.549	11.163	532.099
2000	0.25	0.	50.549	11.192	532.099
2001	0.25	0.	50.549	10.948	532.099
2002	0.25	0.	50.549	11.079	532.099
2003	0.25	0.	50.549	11.101	532.099
2004	0.25	0.	50.549	11.151	532.099
2005	0.25	0.	50.549	11.129	532.099

<u>Year</u>	<u>Withdrawal</u>	<u>E &amp; S Ed. Expenses</u>	<u>Coverage</u>	<u>General Fund Revenues</u>
1982	0.	458.	0.	4437.92
1983	0.	523.004	0.	2848.31
1984	0.	586.375	0.	3350.97
1985	0.	672.728	0.	4291.12
1986	0.	771.833	0.	4871.41
1987	0.	848.583	0.	5543.41
1988	0.	909.595	0.	5697.05
1989	0.	988.986	0.	6566.05
1990	44.499	1076.34	0.041	6683.55
1991	50.549	1179.69	0.043	6891.8
1992	50.549	1287.42	0.039	6967.41
1993	50.549	1401.55	0.036	7602.82
1994	50.549	1530.7	0.033	7723.46
1995	50.549	1669.86	0.03	7439.57
1996	50.549	1822.95	0.028	7196.28
1997	50.549	1991.92	0.025	7254.92
1998	50.549	2170.68	0.023	7019.18
1999	50.549	2367.4	0.021	6557.29
2000	50.549	2582.37	0.02	5905.48
2001	50.549	2809.46	0.018	5110.27
2002	50.549	3059.98	0.017	4103.82
2003	50.549	3333.04	0.015	2860.11
2004	50.549	3631.09	0.014	1195.57
2005	50.549	3955.19	0.013	-514.114

Table IV-3 describes the elements of this case. See the Glossary for explanation of the terms used on this page.



ENDOWMENT FUND SIMULATION  
CASE NO. 2 (e)

<u>Year</u>	<u>Contribution Rate</u>	<u>Total Contribution</u>	<u>Earnings</u>	<u>Real Earnings</u>	<u>Fund Balance</u>
1982	0.	0.	0.	0.	0.
1983	0.	0.	0.	0.	0.
1984	0.	0.	0.	0.	0.
1985	0.	0.	0.	0.	0.
1986	0.5	1390.79	0.	0.	1390.79
1987	0.5	1861.79	146.033	28.704	3252.58
1988	0.5	2007.3	341.521	87.81	5259.89
1989	0.5	2612.06	552.288	146.541	7871.95
1990	0.5	2573.6	826.554	223.307	10445.5
1991	0.5	2594.39	1096.78	314.045	13039.9
1992	0.5	2615.96	1369.19	389.036	15655.9
1993	0.5	2950.66	1643.87	479.265	18606.6
1994	0.5	3008.2	1953.69	579.635	21614.8
1995	0.5	2747.29	2269.55	669.472	24362.
1996	0.5	2535.68	2558.01	758.211	26897.7
1997	0.5	2580.75	2824.26	841.925	29478.5
1998	0.5	2440.95	3095.24	908.789	31919.4
1999	0.5	2361.99	3351.54	989.55	34281.4
2000	0.5	2535.04	3599.55	1064.51	36816.4

<u>Year</u>	<u>Withdrawal</u>	<u>E &amp; S Ed. Expenses</u>	<u>Coverage</u>	<u>General Fund Revenues</u>
1982	0.	458.	0.	4437.92
1983	0.	523.004	0.	4106.4
1984	0.	586.518	0.	5015.75
1985	0.	673.178	0.	6398.95
1986	0.	772.736	0.	7428.27
1987	0.	850.089	0.	8551.95
1988	0.	911.872	0.	8850.75
1989	0.	992.166	0.	10140.8
1990	223.307	1080.58	0.207	10514.2
1991	314.045	1185.14	0.265	10842.7
1992	389.036	1294.21	0.301	11169.6
1993	479.265	1409.8	0.34	12182.8
1994	579.635	1540.55	0.376	12680.4
1995	669.472	1681.44	0.398	12571.6
1996	758.211	1836.42	0.413	12693.
1997	841.925	2007.39	0.419	13449.8
1998	908.789	2188.33	0.415	13859.7
1999	989.55	2387.41	0.414	14131.5
2000	1064.51	2604.98	0.409	14279.8

Table IV-3 describes the elements of this case. See the Glossary for explanation of the terms used on this page.

ENDOWMENT FUND SIMULATION  
CASE NO. 3 (a)

<u>Year</u>	<u>Contribution Rate</u>	<u>Total Contribution</u>	<u>Earnings</u>	<u>Real Earnings</u>	<u>Fund Balance</u>
1982	0.	0.	0.	0.	0.
1983	0.	0.	0.	0.	0.
1984	0.	0.	0.	0.	0.
1985	0.	0.	0.	0.	0.
1986	0.25	430.65	0.	0.	430.65
1987	0.25	543.668	45.218	8.838	974.318
1988	0.25	646.803	102.303	26.193	1621.12
1989	0.25	770.968	170.218	44.978	2392.09
1990	0.25	582.15	251.169	67.577	2974.24
1991	0.25	550.35	312.295	89.114	3524.59
1992	0.25	546.75	370.082	104.821	4071.34
1993	0.25	556.65	427.49	124.327	4627.99
1994	0.25	558.6	485.938	143.885	5186.59
1995	0.25	510.75	544.591	160.357	5697.34
1996	0.25	0.	598.22	177.077	5697.34
1997	0.25	0.	598.22	178.153	5697.34
1998	0.25	0.	598.22	175.469	5697.34
1999	0.25	0.	598.22	176.496	5697.34
2000	0.25	0.	598.22	176.805	5697.34
2001	0.25	0.	598.22	174.197	5697.34
2002	0.25	0.	598.22	175.605	5697.34
2003	0.25	0.	598.22	175.838	5697.34
2004	0.25	0.	598.22	176.153	5697.34
2005	0.25	0.	598.22	176.132	5697.34

<u>Year</u>	<u>Withdrawal</u>	<u>E &amp; S Ed. Expenses</u>	<u>Coverage</u>	<u>General Fund Revenues</u>
1982	0.	458.	0.	4437.92
1983	0.	523.004	0.	2848.31
1984	0.	586.375	0.	3398.55
1985	0.	672.728	0.	4391.52
1986	0.	771.833	0.	5039.49
1987	0.	848.583	0.	5759.55
1988	0.	909.595	0.	5971.2
1989	0.	988.986	0.	6899.56
1990	251.169	1076.34	0.233	7299.23
1991	312.295	1179.69	0.265	7664.81
1992	370.082	1287.42	0.287	7921.52
1993	427.49	1401.55	0.305	8764.08
1994	485.938	1530.7	0.317	9121.76
1995	544.591	1669.86	0.326	9108.56
1996	598.22	1822.95	0.328	9173.26
1997	598.22	1991.92	0.3	9577.27
1998	598.22	2170.68	0.276	9734.3
1999	598.22	2367.4	0.253	9717.95
2000	598.22	2582.37	0.232	9571.
2001	598.22	2809.46	0.213	9347.2
2002	598.22	3059.95	0.195	8986.06
2003	598.22	3353.04	0.179	8470.64
2004	598.22	3631.09	0.165	7627.16
2005	598.22	3905.19	0.151	6842.29

Table IV-3 describes the elements of this case. See the Glossary for explanation of the terms used on this page.

ENDOWMENT FUND SIMULATION  
CASE NO. 3 (b)

<u>Year</u>	<u>Contribution Rate</u>	<u>Total Contribution</u>	<u>Earnings</u>	<u>Real Earnings</u>	<u>Fund Balance</u>
1952	0.	0.	0.	0.	0.
1953	0.	0.	0.	0.	0.
1954	0.	0.	0.	0.	0.
1955	0.	0.	0.	0.	0.
1956	0.25	430.65	0.	0.	430.65
1957	0.25	539.362	40.912	4.532	970.011
1958	0.25	636.651	92.151	16.377	1606.66
1959	0.25	753.383	152.633	28.51	2360.05
1960	0.25	582.15	224.204	43.071	2942.2
1961	0.25	550.35	279.508	58.732	3492.54
1962	0.25	546.75	331.792	68.942	4039.29
1963	0.25	556.65	383.733	82.955	4595.94
1964	0.25	558.6	436.614	96.929	5154.54
1965	0.25	510.75	489.681	107.821	5665.29
1966	0.25	0.	538.202	119.428	5665.29
1967	0.25	0.	538.202	120.498	5665.29
1968	0.25	0.	538.202	117.829	5665.29
1969	0.25	0.	538.202	118.85	5665.29
1970	0.25	0.	538.202	119.158	5665.29
1971	0.25	0.	538.202	116.565	5665.29
1972	0.25	0.	538.202	117.964	5665.29
1973	0.25	0.	538.202	118.196	5665.29
1974	0.25	0.	538.202	118.51	5665.29
1975	0.25	0.	538.202	118.488	5665.29

<u>Year</u>	<u>Withdrawal</u>	<u>E &amp; S Ed. Expenses</u>	<u>Coverage</u>	<u>General Fund Revenues</u>
1952	0.	458.	0.	4437.92
1953	0.	523.004	0.	2848.31
1954	0.	586.375	0.	3398.55
1955	0.	672.728	0.	4391.52
1956	0.	771.833	0.	5039.49
1957	0.	848.583	0.	5759.55
1958	0.	909.595	0.	5971.2
1959	0.	988.986	0.	6899.37
1960	224.204	1076.54	0.208	7272.26
1961	279.508	1179.69	0.237	7629.46
1962	331.792	1287.42	0.258	7877.11
1963	383.733	1401.55	0.274	8710.2
1964	436.614	1530.7	0.285	9007.2
1965	489.681	1669.86	0.293	9032.28
1966	538.202	1822.95	0.295	9084.62
1967	538.202	1991.92	0.27	9480.21
1968	538.202	2170.68	0.248	9628.02
1969	538.202	2367.4	0.227	9601.57
1970	538.202	2582.37	0.208	9443.57
1971	538.202	2809.46	0.192	9207.67
1972	538.202	3039.98	0.176	8833.29
1973	538.202	3333.04	0.161	8303.34
1974	538.202	343	0.148	7443.96
1975	538.202	3935.19	0.136	6841.69

Table IV-3 describes the elements of this case. See the Glossary for explanation of the terms used on this page.

ENDOWMENT FUND SIMULATION  
CASE NO: 3 (c)

Year	Contribution Rate	Total Contribution	Earnings	Real Earnings	Fund Balance
1982	0.	0.	0.	0.	0.
1983	0.	0.	0.	0.	0.
1984	0.	0.	0.	0.	0.
1985	0.	0.	0.	0.	0.
1986	0.25	430.65	0.	0.	430.65
1987	0.25	543.668	45.218	8.838	974.318
1988	0.25	646.803	102.303	26.193	1621.12
1989	0.25	770.968	170.218	44.978	2392.09
1990	0.25	765.742	251.169	67.577	3157.83
1991	0.25	787.307	331.572	94.615	3945.14
1992	0.25	843.662	414.239	117.328	4788.8
1993	0.25	913.237	502.823	146.236	5702.03
1994	0.25	980.035	598.713	177.277	6682.07
1995	0.25	1005.77	701.617	206.593	7687.84
1996	0.25	568.279	807.222	238.943	8256.11
1997	0.25	608.727	866.891	258.164	8864.84
1998	0.25	637.785	930.808	273.023	9522.62
1999	0.25	704.877	999.875	294.998	10227.5
2000	0.25	756.497	1073.89	317.39	10984.
2001	0.25	817.481	1153.32	335.838	11601.5
2002	0.25	875.406	1239.15	363.748	12676.9
2003	0.25	939.822	1331.07	391.25	13616.7
2004	0.25	1008.74	1429.75	421.009	14625.4
2005	0.25	1083.53	1535.67	452.142	15709.

Year	Withdrawal	E & S Ed. Expenses	Coverage	General Fund Revenues
1982	0.	458.	0.	4437.92
1983	0.	523.004	0.	2848.31
1984	0.	586.375	0.	3398.55
1985	0.	672.728	0.	4391.52
1986	0.	771.833	0.	5039.49
1987	0.	848.583	0.	5759.55
1988	0.	909.595	0.	5971.2
1989	0.	988.986	0.	6899.36
1990	67.577	1076.34	0.063	7115.63
1991	94.615	1179.69	0.08	7429.69
1992	117.328	1287.42	0.091	7628.73
1993	146.236	1401.55	0.104	8415.25
1994	177.277	1530.7	0.116	8712.39
1995	206.593	1669.86	0.124	8630.97
1996	238.943	1822.95	0.131	8629.01
1997	258.164	1991.92	0.13	9000.54
1998	273.023	2170.68	0.126	9117.64
1999	294.998	2367.4	0.125	9064.68
2000	317.39	2582.37	0.123	8878.07
2001	335.838	2809.46	0.12	8606.89
2002	363.748	3059.98	0.119	8203.34
2003	391.25	3333.04	0.117	7641.05
2004	421.009	3631.09	0.116	6748.52
2005	452.142	3955.19	0.114	5911.31

Table IV-3 describes the elements of this case. See the Glossary for explanation of the terms used on this page.

ENDOWMENT FUND SIMULATION  
CASE NO. 3 (d)

<u>Year</u>	<u>Contribution Rate</u>	<u>Total Contribution</u>	<u>Earnings</u>	<u>Real Earnings</u>	<u>Fund Balance</u>
1982	0.	0.	0.	0.	0.
1983	0.	0.	0.	0.	0.
1984	0.	0.	0.	0.	0.
1985	0.	0.	0.	0.	0.
1986	0.25	717.75	0.	0.	717.75
1987	0.25	906.114	75.364	14.814	1623.86
1988	0.25	1078.01	170.506	43.84	2701.87
1989	0.25	1284.95	283.696	75.274	3986.81
1990	0.25	970.25	418.615	113.096	4957.06
1991	0.25	917.25	520.491	149.034	5874.31
1992	0.25	911.25	616.802	175.256	6785.56
1993	0.25	927.75	712.484	207.722	7713.31
1994	0.25	931.	809.897	240.287	8644.31
1995	0.25	851.25	907.652	267.74	9495.56
1996	0.25	819.5	997.033	295.527	10315.1
1997	0.25	888.5	1083.08	322.871	11203.6
1998	0.25	918.75	1176.37	345.394	12122.3
1999	0.25	927.75	1272.84	375.81	13050.1
2000	0.25	937.	1370.26	405.231	13987.1
2001	0.25	937.	1468.64	427.951	14924.1
2002	0.25	937.	1567.03	460.192	15861.1
2003	0.25	937.	1665.41	489.66	16798.1
2004	0.25	937.	1763.8	519.452	17735.1
2005	0.25	937.	1862.18	548.308	18672.1

<u>Year</u>	<u>Withdrawal</u>	<u>E &amp; S Ed. Expenses</u>	<u>Coverage</u>	<u>General Fund Revenues</u>
1982	0.	458.	0.	4437.92
1983	0.	523.004	0.	4106.4
1984	0.	586.518	0.	5063.34
1985	0.	673.178	0.	6499.36
1986	0.	772.736	0.	7596.4
1987	0.	850.089	0.	8866.78
1988	0.	911.872	0.	9353.03
1989	0.	992.166	0.	10841.6
1990	418.615	1080.58	0.387	11663.3
1991	520.491	1185.14	0.439	12300.4
1992	616.802	1294.21	0.477	12974.6
1993	712.484	1409.8	0.505	14345.4
1994	809.897	1540.55	0.526	15248.9
1995	907.652	1661.44	0.54	15591.9
1996	997.033	1836.42	0.543	16174.3
1997	1083.08	2007.39	0.54	17414.9
1998	1176.37	2188.33	0.538	18373.8
1999	1272.84	2387.41	0.533	19216.3
2000	1370.26	2604.98	0.526	19988.2
2001	1468.64	2834.67	0.518	20756.9
2002	1567.03	3088.45	0.507	21479.8
2003	1665.41	3364.81	0.495	22148.3
2004	1763.8	3666.44	0.481	22598.
2005	1862.18	3994.41	0.466	23225.8

Table IV-3 describes the elements of this case. See the Glossary for explanation of the terms used on this page.

ENDOWMENT FUND SIMULATION

CASE NO. 4 (a)

Year	Total Contribution	Earnings	Real Earnings	Fund Balance	Withdrawal
1982	0.	0.	0.	0.	0.
1983	0.	0.	0.	0.	0.
1984	0.	0.	0.	0.	0.
1985	0.	0.	0.	0.	0.
1986	295.595	0.	0.	295.595	0.
1987	364.76	31.037	6.066	660.355	0.
1988	446.749	69.337	17.753	1107.1	0.
1989	542.058	116.246	30.716	1649.16	0.
1990	606.279	173.162	46.589	2255.44	46.589
1991	704.697	236.821	67.578	2960.14	67.578
1992	815.238	310.814	88.034	3775.38	88.034
1993	953.391	396.414	115.289	4708.77	115.289
1994	1063.76	494.42	146.397	5772.52	146.397
1995	1210.26	606.115	178.473	6982.8	178.473
1996	1366.7	733.194	217.03	8349.5	217.03
1997	1536.62	876.697	261.084	9886.12	261.084
1998	1730.91	1038.04	304.476	11617.	304.476
1999	1936.56	1219.79	359.879	13555.6	359.879
2000	2167.17	1423.34	420.67	15722.7	420.67
2001	2425.31	1650.89	480.726	18148.1	480.726
2002	2696.75	1905.55	559.364	20844.8	559.364
2003	2996.35	2188.7	643.338	23841.2	643.338
2004	3322.84	2503.32	737.156	27164.	737.156
2005	3680.37	2852.22	839.767	30844.4	839.767

Year	E & S Ed. Expenses	General Fund Coverage	Contribution Revenues	Contribution Rate
1982	458.	0.	4437.92	50% from 1986
1983	523.004	0.	2848.31	
1984	586.375	0.	3350.97	
1985	672.728	0.	4291.12	
1986	771.833	0.	4871.41	
1987	848.583	0.	5521.63	
1988	909.595	0.	5652.98	
1989	988.986	0.	6488.18	
1990	1076.34	0.043	6575.54	
1991	1175.69	0.057	6748.95	
1992	1257.42	0.068	6780.57	
1993	1401.55	0.082	7369.21	
1994	1550.7	0.096	7436.82	
1995	1669.86	0.107	7089.75	
1996	1822.95	0.119	6777.44	
1997	1991.92	0.131	6759.55	
1998	2170.68	0.14	6432.64	
1999	2367.4	0.152	5875.68	
2000	2582.37	0.163	5117.44	
2001	2809.46	0.171	4196.79	
2002	3059.98	0.183	3062.98	
2003	3353.04	0.193	1676.05	
2004	3751.09	0.203	-145.	
2005	4155.2	0.212	-2027.31	

Table IV-3 describes the elements of this case. See the Glossary for explanation of the terms used on this page.

ENDOWMENT FUND SIMULATION  
CASE NO. 4 (b)

<u>Year</u>	<u>Total Contribution</u>	<u>Earnings</u>	<u>Real Earnings</u>	<u>Fund Balance</u>	<u>Withdrawal</u>
1983	0.	0.	0.	0.	0.
1985	0.	0.	0.	0.	0.
1984	0.	0.	0.	0.	0.
1985	0.	0.	0.	0.	0.
1986	295.595	0.	0.	295.595	0.
1987	364.76	31.037	6.066	660.355	0.
1988	446.749	69.337	17.753	1107.1	0.
1989	542.058	116.246	30.716	1649.16	0.
1990	479.706	173.162	46.589	2128.87	173.162
1991	535.453	223.531	63.785	2664.32	223.531
1992	592.458	279.753	79.236	3256.78	279.753
1993	652.266	341.961	99.453	3909.05	341.961
1994	715.734	410.449	121.533	4624.78	410.449
1995	782.637	485.601	142.987	5407.41	485.601
1996	850.54	567.778	168.066	6257.95	567.778
1997	921.007	657.085	195.683	7178.96	657.085
1998	997.347	753.79	221.1	8176.3	753.79
1999	1076.65	858.511	253.291	9254.95	858.511
2000	1164.5	971.769	287.209	10419.4	971.769
2001	1255.15	1094.04	318.577	11674.6	1094.04
2002	1350.56	1225.83	359.837	13025.2	1225.83
2003	1450.98	1367.64	401.999	14476.1	1367.64
2004	1556.68	1519.99	447.595	16032.8	1519.99
2005	1667.92	1683.45	495.65	17700.7	1683.45

<u>Year</u>	<u>E &amp; S Ed. Expenses</u>	<u>Coverage</u>	<u>General Fund Revenues</u>	<u>Contribution Rate</u>
1982	458.	0.	4437.92	
1983	523.004	0.	2848.31	50% from 1986
1984	586.375	0.	3350.97	
1985	672.728	0.	4291.12	
1986	771.833	0.	4871.41	
1987	848.583	0.	5521.63	
1988	909.595	0.	5652.98	
1989	988.986	0.	6468.18	
1990	1076.34	0.161	6702.12	
1991	1179.69	0.189	6916.93	
1992	1287.42	0.217	7000.28	
1993	1401.35	0.244	7644.73	
1994	1530.7	0.268	7775.9	
1995	1669.86	0.291	7504.12	
1996	1822.95	0.311	7274.8	
1997	1991.92	0.33	7349.41	
1998	2170.68	0.347	7131.85	
1999	2367.4	0.363	6690.64	
2000	2582.37	0.376	6062.28	
2001	2809.46	0.389	5293.61	
2002	3057.98	0.401	4317.14	
2003	3353.04	0.41	3107.19	
2004	3651.09	0.419	1480.64	
2005	3953.2	0.426	-186.35	

Table IV-3 describes the elements of this case. See the Glossary for explanation of the terms used on this page.

ENDOWMENT FUND SIMULATION  
CASE NO. 4 (c)

<u>Year</u>	<u>Total Contribution</u>	<u>Earnings</u>	<u>Real Earnings</u>	<u>Fund Balance</u>	<u>Withdrawal</u>
1983	0.	0.	0.	0.	0.
1984	0.	0.	0.	0.	0.
1985	0.	0.	0.	0.	0.
1986	531.099	0.	0.	331.099	0.
1987	417.618	31.454	3.523	748.717	0.
1988	521.179	71.128	12.726	1269.9	0.
1989	641.962	120.64	22.68	1911.86	0.
1990	782.884	181.626	35.116	2694.74	0.
1991	885.672	256.	54.07	3580.43	54.07
1992	1036.94	340.141	71.015	4617.37	71.015
1993	1197.44	438.65	95.175	5816.81	95.175
1994	1377.17	552.596	123.038	7195.98	123.038
1995	1561.04	683.617	150.921	8777.01	150.921
1996	1776.49	833.816	185.394	10573.5	185.394
1997	2030.62	1004.48	225.226	12604.1	225.226
1998	2299.57	1197.39	262.53	14902.7	262.53
1999	2586.52	1415.76	312.979	17489.	312.979
2000	2903.11	1661.46	368.18	20392.4	368.18
2001	3261.15	1937.28	420.006	23653.5	420.006
2002	3638.65	2247.09	492.835	27292.4	492.835
2003	4075.87	2592.78	569.642	31348.3	569.642
2004	4510.52	2978.08	655.91	35859.1	655.91
2005	5007.3	3406.61	750.052	40868.4	750.052

<u>Year</u>	<u>E &amp; S Ed. Expenses</u>	<u>Coverage</u>	<u>General Fund Revenues</u>	<u>Contribution Rate</u>
1983	458.	0.	4437.92	
1984	523.004	0.	4106.4	50% from 1986
1985	586.518	0.	5015.75	
1986	672.178	0.	6398.95	
1987	772.736	0.	7428.27	
1988	880.089	0.	8652.62	
1989	911.872	0.	9087.3	
1990	992.166	0.	10515.3	
1991	1080.08	0.	10847.2	
1992	1185.14	0.046	11300.7	
1993	1294.21	0.055	11720.2	
1994	1407.5	0.068	12802.1	
1995	1540.05	0.08	13374.4	
1996	1681.44	0.09	13334.6	
1997	1856.42	0.101	13483.6	
1998	2007.39	0.112	14232.5	
1999	2165.58	0.12	14625.1	
2000	2337.41	0.131	14833.9	
2001	2604.98	0.141	14888.2	
2002	2874.57	0.148	14836.8	
2003	3088.43	0.16	14650.	
2004	3344.61	0.169	14291.2	
2005	3666.44	0.179	13587.4	
2006	3994.87	0.188	12919.1	

Table IV-3 describes the elements of this case. See the Glossary for explanation of the terms used on this page.





## V. CREATION AND MANAGEMENT OF AN ENDOWMENT FUND

How could an endowment fund be created? What principles should underlie the institutional structure and management of an endowment fund? This section deals briefly with these two questions.

### 1. Creation of an Endowment Fund

It appears that an endowment fund would require a constitutional amendment unless it were built with the remaining 50 percent of the Permanent Fund earnings, which apparently may be earmarked under existing law.

#### Constitutional Amendment

A constitutional amendment could be written to mandate the creation of an educational endowment fund, or it could be written to authorize the creation of a fund. A constitutional mandate could specify the source of revenues and the proportion contributed annually (such as 25 percent of mineral royalties or 50 percent of the annual general fund current account surplus created by the proposed spending limit), or it could leave the financial structure of the fund in the hands of the legislature. A fund could also be created by the legislature under a constitutional authorization which might be limited to educational endowment or be broadly applicable to other purposes as well (Article IX, Section 7 could be repeated, for example).

Leaving to legislative discretion the overall fiscal structure of a fund and the annual appropriations to it is appealing from the abstract public policy principle of retaining budgetary flexibility. But legislative discretion might not be appealing to strong supporters of an Alaska educational endowment fund who would prefer to specify the structure and annual appropriations in constitutional language. Statutory provisions can be changed by the legislature, and, therefore, they offer far less protection from changing public sentiment than would be provided by an explicit constitutional provision.

## Creation Under Existing Law

Article IX, Section 15, of the Alaska Constitution states that the earnings of the Alaska Permanent Fund shall be deposited to the general fund "unless otherwise provided by law." Half of the Permanent Fund earnings have already been dedicated by law to per capita distribution.<sup>1</sup> The remaining half appear to be available for dedicating to the corpus of an endowment trust fund. The obvious disadvantages of this approach from the point of view of endowment fund proponents are that the fund would not enjoy the security of constitutional protection, and the earnings of the Permanent Fund would strictly limit the potential size of the fund. However, statutory dedication of a portion of Permanent Fund earnings to an endowment fund may be the only feasible means of creating an educational endowment (especially in the near future). Also, quite enduring funds can be created by statutory earmarking. The Alaska Permanent Fund dividend program is likely to be very popular and long-lasting. Statutory highway trust funds at the national and state level also seem to be permanent fiscal institutions. Thus, a statutory educational endowment fund that enjoyed wide popularity might well become politically sacrosanct.

## 2. Management of an Endowment Fund

The principles for managing public financial trusts are well established in Alaska law, and a new endowment fund should adhere closely to them. The institutional structure and management of the Alaska Permanent Fund are sound precedents for a major new educational endowment trust. Principles for the investment of public trust funds in general are set forth in AS 37.14.160-170. Management of the Alaska Permanent Fund is specified in AS 37.13.010-070.<sup>2</sup>

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<sup>1</sup>There has not yet been a formal opinion from the Attorney General about whether the dividend distribution law dedicates this revenue. Apparently, there is dispute among lawyers about whether the phrase "unless otherwise provided by law" permits earmarking.

<sup>2</sup>Management of the Alaska Permanent Fund may be compared by the reader with aspects of the management of the Texas educational endowment fund, information about which is presented in Appendix D.

If an endowment fund is to have an independent board of directors, its members should be professionally competent to manage the assets of the fund and politically independent from--yet accountable to--the representative institutions of the state. Achieving the proper balance of independence and accountability is the difficult task in creating a management scheme.

Independence of the Permanent Fund managers is sought by making half of the trustees private citizens, staggering the terms of trustees, and giving each trustee a three-year term of office from which he or she may be removed only for cause (a judgment by the governor that must be ratified by the legislature). Accountability of the trustees of the Permanent Fund is sought by making half of the trustees heads of major departments of the state administration (commissioners), sharing appointment authority between the governor and legislature, and providing a process for removing trustees. Competence on the part of the Permanent Fund trustees is sought by making the commissioner of revenue one of the three cabinet member trustees and specifying relevant expertise as a statutory qualification for public members of the board. An endowment fund would also attempt to achieve competence, independence, and accountability in its management structure through similar statutory requirements.

It is not necessary (although certainly possible) that an endowment fund have its own staff responsible for day-to-day investment decisions. Assets of the Permanent Fund are invested routinely by employees of the Alaska Department of Revenue. The Fund's Board of Trustees provides only general investment guidelines and strategies. An endowment fund could be managed the same way without the need for its own investment staff. Financial consultants and professional investor services could be used to manage day-to-day investments in areas currently outside the domain of Department of Revenue officials (such as equity securities, for example) if these investments were allowed by the fund's enabling legislation.



APPENDICES

## APPENDIX A

### REVENUE FORECASTS AND MAP MODEL

As this report is being written (March 1982), there is great uncertainty about future state revenue from petroleum sources. Revenue projections are so uncertain that the legislative finance committees and the administration are unsure of the amount of money that will be available for appropriation in the next fiscal year (FY 1983). This situation is the result of a rapidly deteriorating world market for crude oil. Almost 90 percent of the state's revenue is derived from petroleum, and the amount of petroleum revenue the state receives is dependent upon its market value. Therefore, state income is directly linked to the world price of oil.

Oil prices have fallen sharply since December 1980, when the spot market price of Saudi Arabian crude exceeded \$40/barrel. Spot market prices are now in the neighborhood of \$30/barrel. Lower prices reflect reduced demand which has resulted from oil conservation measures and a world-wide recession.

Whether prices will continue to decline in the near future is unclear. Large producing countries such as Saudi Arabia may restrict output in an effort to stabilize prices. In the long run, however, oil prices are expected to increase again as a world energy shortage reasserts itself. When prices will begin to increase and the rate at which they will increase is imponderable at the present time.

The key variable in the analysis of alternative endowment fund structures is state petroleum revenue. Initial computer simulations of various endowment funds used petroleum revenue projections made by the Department of Revenue (DOR) in January 1982. Table A.1 shows the petroleum elements of the DOR revenue forecast.<sup>1</sup>

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<sup>1</sup>This is a computer-based forecast of total state revenues that is built around estimates of petroleum revenue that are supplied by the Department's Petroleum Revenue Division. The January 1982 DOR projections reflect information in the December 1981 quarterly report of the Petroleum Division (Petroleum Production Revenue Forecast, Quarterly Report, December 1981). The methods and assumptions used to forecast state petroleum revenue are explained in the quarterly publication. The DOR projections extend to 1997. Estimates for subsequent years were made by the authors.

TABLE A.1

STATE PETROLEUM REVENUE FORECASTS,  
DEPARTMENT OF REVENUE, JANUARY, 1981  
(MILLIONS OF CURRENT DOLLARS)

<u>Fiscal Year</u>	<u>Severance Tax</u>	<u>Property Tax</u>	<u>Income Tax</u>	<u>Royalty</u>	<u>Bonus Sales</u>	<u>Total</u>
1981	1170.2	143.0	860.1	1491.3	15.2	3679.8
1982	1718.7	155.0	713.0	1678.4	1.6	4266.7
1983	1819.6	157.0	304.0	1767.0	Ø	4047.6
1984	2214.1	225.0	360.0	2145.1	Ø	4944.2
1985	2616.1	283.1	373.0	2542.6	Ø	5814.8
1986	2958.9	304.2	400.0	2870.6	Ø	6533.7
1987	3420.7	317.9	430.0	3323.2	Ø	7491.8
1988	3179.0	317.9	460.0	3630.1	Ø	7587.0
1989	3540.8	318.0	490.0	4004.8	Ø	8353.6
1990	3386.2	318.0	520.0	3881.4	Ø	8105.6
1991	3139.6	318.0	550.0	3688.7	Ø	7676.3
1992	3061.4	305.0	580.0	3645.4	Ø	7591.8
1993	3095.7	293.0	610.0	3710.8	Ø	7709.5
1994	3092.8	281.0	640.0	3724.3	Ø	7738.1
1995	2740.0	270.0	670.0	3405.3	Ø	7085.3
1996	2572.0	259.0	700.0	3277.6	Ø	6808.6
1997	2771.3	251.0	730.0	3553.8	Ø	7306.1
1998	2800.9	238.0	730.0	3674.6	Ø	7443.5
1999	2850.0	226.0	730.0	3711.3	Ø	7517.3
2000	2850.0	212.0	730.0	3748.4	Ø	7540.4



World oil prices continued to decline between January and early February 1982, and analysts predicted further decline. As a result, the recent DOR forecasts overstated revenue to the state, particularly in the short term. In late February, a two-year forecast of state revenue was issued by the Legislative Finance Division of the Legislative Affairs Agency that proposed high, medium, and low cases--all of which were lower than the January forecast of DOR.<sup>2</sup>

In this fluid fiscal situation, it became very difficult to make a close analysis of the financial implications of funding a major endowment program. It was well beyond the scope of this research project to develop original revenue estimates. Furthermore, the unsettled situation made long-term forecasting an unusually uncertain enterprise. Therefore, two petroleum revenue forecasts were used in this analysis so that various endowment funds could be examined under different revenue assumptions. The revenue figures in the January DOR forecast were used to bracket a high case (although in the long run these estimates could conceivably understate petroleum revenues). A forecast to bracket a low case was devised by reducing all of the DOR petroleum revenue figures in proportion to the Legislative Finance medium-case, short-term revenue estimate (this was equivalent to reducing the DOR severance tax and royalty income about 40 percent through the year 2000).

A computerized econometric model of Alaska's economy was used to analyze the fiscal effects of various endowment fund formulas in Section IV. This is the MAP model developed by the Institute of Social and Economic Research at the University of Alaska. The MAP model generates a general fund revenue forecast on the basis of assumptions about petroleum revenues and independent projections of other revenues.<sup>3</sup>

General fund revenue projections by the MAP model vary somewhat from case to case in the computer simulations even under the same petroleum revenue projections (either DOR 1/82 or LF 2/82). This is because the timing, rate, and

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<sup>2</sup>Memorandum from Milt Barker, Fiscal Analyst, to Chairmen of the Legislative Finance Committees, "General Funds Available for Appropriation, FY 83," February 24, 1982.

<sup>3</sup>A detailed description of the MAP model is presented in two publications by Scott Goldsmith of ISER: MAP Model Documentation, 1979; and Improvement to Specifications of the Map Model, 1981. Both are available from ISER.

size of contributions to the endowment fund influence the size of the general fund balance, and interest earnings on the balance are an important source of revenue to the general fund. Earnings by the endowment fund, which are a function of its size and the real rate of return, also indirectly influence the size and, therefore, earnings of the general fund balance.

It should be noted that an important assumption of the MAP model simulations in Section IV is that a spending limit exists identical to that of the proposed constitutional limitation. Expenditures under the limit are used to fund operations (2/3 of the limit), capital projects (1/6), and loans (1/6). General fund expenditure patterns are assumed to reflect this limit whether or not the proposed constitutional amendment is ratified. Other key assumptions of the MAP model simulations are:

- Moderate private sector economic growth.
- Future expenditures are cash (not financed by bonds).
- Permanent Fund earnings are distributed to residents (50 percent) and reinvested (50 percent).
- All state revenues not spent or put into the Permanent Fund go into the general fund.
- General Fund real rate of return is 2 percent.
- Permanent Fund real rate of return is 3 percent.
- Expenditures outside the constitutional limit include debt service, Permanent Fund per capita dividends, and expenditures financed by nongeneral fund sources of revenue (inter-agency receipts, federal and other grants, enterprise fund receipts, and other special fund revenues).

## APPENDIX B

### DEDICATED REVENUES: THE THEORY AND PRACTICE IN ALASKA

#### I. Introduction

An important policy issue of endowment funds is that of dedicating public revenues to special purposes. What is the consequence of dedicating public revenues? What is the legal status of dedicated funds in Alaska? This appendix discusses these and related questions about dedicated funds and their use in Alaska.

#### II. Dedicated Revenue

Dedicating revenues--also called earmarking--is the practice of allocating specific tax receipts to specific purposes. The practice is widespread at the federal, state, and local level throughout the United States. For example, federal gasoline taxes are earmarked for interstate highway construction, and state gasoline taxes are also earmarked for highway construction and repair in numerous states. At the local level, the ubiquitous special service districts with separate property tax levies represent a form of earmarking.

Dedicated tax receipts collected in one year are typically spent the following year for their intended purpose. Only a few dedicated funds are of the permanent fund type, which automatically accumulate the earmarked revenue as their corpus (i.e., principal, or assets) and generate spendable income through investment of this corpus. The earnings of a permanent fund may or may not be dedicated. Income earned by Alaska's Permanent Fund is not earmarked by the constitutional provision that creates the fund. Unless earmarked by legislative action (which has occurred with respect to a portion of the fund's earnings, as discussed below), income from the fund is deposited to the general fund for appropriation to any purpose. The Alaska Permanent Fund is, nonetheless, a dedicated fund because certain state revenues (25 percent of mineral lease income) are automatically deposited to it without legislative appropriation. It would be possible to create an educational endowment fund with contributions made by legislative appropriation from the general fund. In this case, even though contributions were made by appropriation, the fund would be a dedicated fund because the earnings of it (that is, a certain category

of state revenue) would be set aside for educational purposes and these would circumvent legislative control. A permanent-type fund would not be a dedicated fund only if the legislature appropriated the deposits to the fund and was free to allocate its income to whatever purpose it chose.

Public finance experts debate the advantages and disadvantages of earmarking.<sup>1</sup> Certain taxes are more palatable to the public if they are identified with a specific governmental service. It is, therefore, often easier for government to undertake or expand an activity by assigning a particular tax revenue to it than it is by incorporating the cost in the general budget and raising general taxes. In some cases, earmarking may roughly equate the benefits received from a service and the payments for it made by each user. Further, some earmarking gives voters a wider range of expression of opinion on various forms of government spending.

The primary disadvantage of earmarking is the loss of budgetary flexibility that results. Shortfalls and deficits in other spending programs cannot be covered by revenue flowing to the special-purpose funds. Programs protected by dedicated taxes do not receive annual legislative scrutiny, and spending priorities cannot be readily adjusted from one area of government activity to another as conditions change. For example, the existence of the federal Highway Trust Fund has maintained the strong momentum of highway construction even though mass transit programs are widely considered a more relevant solution to long-term national transportation needs.

The authors of a recent survey of public finance in the United States make the following observation about earmarked revenue:

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<sup>1</sup>See James M. Buchanan, "The Economics of Earmarked Taxes," Journal of Political Economy, Vol. 71 (October 1963), pp. 457-469; Walter W. McMahon and Case M. Sprenkle, "A Theory of Earmarking," National Tax Journal, Vol. 23 (September 1970), pp. 255-261; McMahon and Sprenkle, "Earmarking and the Theory of Public Expenditure," National Tax Journal, Vol. 25 (June 1972) pp. 229-230; Per Eklund, "A Theory of Earmarking Appraised," National Tax Journal, Vol. 25 (June 1972) pp. 223-228.

The popularity of earmarking is a major illustration of the distrust shown by voters in the wisdom and integrity of state legislatures. A group of citizens, deeply interested in state performance of a particular activity, will try to free that activity from legislative control by having earmarked funds provided for it. Legislatures often acquiesce, debarring themselves from periodic exercise of judgment concerning segments of the state budget. This practice also hampers the chief executive of a state who should frame a budget with full knowledge of how all state government resources are utilized and with freedom to recommend changes.<sup>2</sup>

### III. Dedicated Funds in Alaska

Framers of Alaska's constitution sought to create strong legislative and executive branches of government. They did not want state government crippled by restrictions, hedges, and prohibitions on the exercise of legislative and executive power. In the area of public finance, therefore, they prohibited dedicated funds, with two exceptions. As originally written, Article IX, Section 7 read:

The proceeds of any state tax or license shall not be dedicated to any special purpose, except when required by the federal government for state participation in federal programs. This provision shall not prohibit the continuance of any dedication for special purposes existing upon the date of ratification of this constitution by the people of Alaska.

A dedicated fund existing at the date of ratification and, therefore, protected by the grandfather clause in Section 7 is the "School Fund" of AS 43.50.130. This fund receives proceeds from the tobacco tax, which may be used only for school construction and repair. Another revenue dedication protected by the grandfather clause is the permanent school fund of AS 37.14.100, which initially

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<sup>2</sup>James A. Maxwell and J. Richard Aronson, Financing State and Local Governments, 3rd ed., Washington, D.C.: Brookings Institution, 1977, pp. 227-228.

received proceeds from the sale or lease of school lands granted to the state by the federal government by the Statehood Act.<sup>3</sup>

New earmarking is permitted by the constitution only when it is necessary for the state to participate in a federal program. This is the case with the "Fish and Game Fund" of AS 16.05.100, to which sport hunting and fishing license fees are dedicated. Federal law requires this dedication for the state to receive certain fish and game revenue-sharing money.

In the late 1960s, the state began to receive significant royalty income from Cook Inlet oil and gas fields. In 1969, Alaska received \$900 million in lease bonuses, and there loomed the prospect of a bonanza of royalty income once the Prudhoe Bay began to produce. Technically, lease rentals, bonuses, and royalty payments are not "proceeds of a tax or license," and the question arose about the inclusion of this revenue in the constitutional ban on earmarking. Two opinions of the state attorney general in 1969 declared that mineral royalties and related income were exempt from the prohibition of Article IX, Section 7, and that the legislature could legally earmark these revenues.<sup>4</sup>

In 1974, the legislature dedicated 5 percent of state receipts from mineral lease rentals, bonuses, and royalties to a newly created renewable resources investment fund. The following year, a number of bills were introduced to earmark more of this revenue: SB 147 dedicated one percent for recreational resources development fund; HB 171 and SB 185 dedicated 15 percent for hydroelectric power development; and HB 324 dedicated 95 percent of bonus income to a general state permanent fund.

In May 1975, the attorney general reversed the interpretation of Article IX, Section 7. The new opinion stated that the delegates of the constitutional convention clearly understood the phrase "proceeds of any state tax or license" to mean all state revenue, including oil and gas royalties and that, therefore, this category of income was included in the constitutional prohibition against earmarking.<sup>5</sup>

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<sup>3</sup>See Appendix C for a more detailed discussion of this fund.

<sup>4</sup>1969 Opinions of the Attorney General No. 3 (April 4, 1969) and No. 5 (April 15, 1969).

<sup>5</sup>1975 Opinions of the Attorney General No. 9 (May 2, 1975).

In response to this new interpretation of the language of Article IX, Section 7, a constitutional amendment was proposed and ratified by the voters in order to create the Alaska Permanent Fund.<sup>6</sup> The renewable resources investment fund is now considered unconstitutional.<sup>7</sup>

The last sentence of Article IX, Section 15, which creates the Alaska Permanent Fund, states: "All income from the permanent fund shall be deposited in the general fund unless otherwise provided by law." By this provision, the constitution appears to permit the legislature to earmark earnings of the fund. In fact, the legislature has dedicated 50 percent of this revenue stream to per capita distributions based on the length of residence in Alaska.<sup>8</sup> The remaining half is deposited to the general fund, and although there are conflicting views on the matter, it appears to be available for statutory earmarking in the future.<sup>9</sup>

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<sup>6</sup>A new section 15 was added to Article IX, and Section 7 was amended to include an exception for Section 15.

<sup>7</sup>1980 Opinions of the Attorney General No. 16 (July 29, 1980).

<sup>8</sup>AS 43.23.050(b).

<sup>9</sup>In FY 1983, the fund is expected to earn \$440 million. By FY 1990, it is forecast to earn over \$1 billion per year. Alaska Department of Revenue, Revenue Forecast, January, 1982.





## APPENDIX C

### EXISTING PERMANENT SCHOOL FUNDS IN ALASKA AND OTHER STATES

#### I. Introduction

Approximately thirty states, including Alaska, have some type of permanent school fund. Sixteen of these state funds are mandated by the constitution (see Table C.1). Permanent school funds are typically quite small and make only a marginal contribution to the annual cost of public education. Texas has the largest permanent school fund, with assets of about \$3 billion, but its annual earnings (\$217.6 million in FY 1981) constitute only a small fraction of the total yearly cost of elementary and secondary education in Texas (much of which is funded by local property taxes as in other states.)

Alaska's permanent school fund has assets of \$26 million. In FY 1983, it is expected to generate only .4 percent of the state's total general fund expenditure on education (excluding the University of Alaska.)

The purpose of this section is to discuss the origin and operation of existing school funds in Alaska and other states. To provide an overview of school funds outside Alaska, funds in Texas, New Mexico, and Nevada are described. The Texas school fund is of special interest because of its size, and, therefore, considerable statutory regulations and other information about its management are presented. This information is summarized for the smaller funds of New Mexico and Nevada.

TABLE C.1

STATES WITH CONSTITUTIONALLY MANDATED  
PERMANENT SCHOOL FUNDS

State	Constitutional Provision
Arizona	Art. XI, Sec. 8
Arkansas	Art. 14, Sec. 2
Colorado	Art. IX, Sec. 3 (see also Sec. 9 and 10)
Connecticut	Art. 8, Sec. 4
Indiana	Art. 8, Sec. 2 (see also Sec. 7)
Iowa	Art. 9, Sec. 3
Kentucky	Sec. 184
Nevada	Art. II, Sec. 3
New Mexico	Art. XII, Sec. 2
North Dakota	Secs. 153-158, 160-161, 163-165
Oregon	Art. VIII, Sec. 2, 4, 5
Rhode Island	Art. XII, Sec. 2
South Dakota	Art. VIII, Sec. 2
Texas	Art. VII, Sec. 2-6a
Utah	Art. X, Sec. 3
Washington	Art. IX, Sec. 3

## II. Alaska's Public School Fund

### Origin and Development

Alaska's public school fund, like that of many other western states, originated in certain land grants made by the federal government to endow public education. In the case of Alaska, Congress authorized grants of school land in 1915. Section 1 of the Act of March 4, 1915, stated: "When the public lands of the Territory of Alaska are surveyed . . . sections number 16 and 36 in each township in said Territory shall be reserved from sale or settlement for the support of common schools . . . [T]he entire proceeds or income derived from said reserved lands are appropriated and set apart as separate and permanent funds in the Territorial treasury, to be invested and the income from which shall be expended only for the exclusive use and benefit of the public schools of Alaska . . ." <sup>1</sup> In Section 6 (k) of the Alaska Statehood Act, Congress repealed the Act of 1915 and granted all lands set aside under its provisions to the new state "for the purposes for which they were reserved . . ."

In this way Alaska acquired school lands and a permanent public school fund, just as many other western states did by way of similar federal grants during their territorial period or at the time of their admission to the United States. According to the law pertaining to these special purpose grants, title to the land is held by the respective states as trustees to fulfill the educational endowment purposes of the original grants. <sup>2</sup> The states are required to administer the lands under the rules of law applicable to trustees acting in a fiduciary capacity. In this capacity, state legislatures may sell, lease, or otherwise deal with the lands in a manner consistent with state constitutional provisions.

In Alaska, very little land had been surveyed by the time of statehood, so the total amount of school land acquired by the state was not great (about 100,000 acres). Further, only a portion of these had been sold or leased, so school lands in Alaska did not generate a substantial sum of

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<sup>1</sup>38 Stat. 1214; 48 U.S.C., Sec. 353.

<sup>2</sup>See the discussion of school lands under "Public Lands" in 63 American Jurisprudence 2d, 107; and in 73 Corpus Juris Secundum 87.

money for the public school fund. Assets of the fund at the end of fiscal year 1978 stood at \$8.5 million.<sup>3</sup>

Management of school lands by the Department of Natural Resources was complicated by their special designation. These complications led to a fundamental change in the status of Alaska school lands in 1978.<sup>4</sup> The legislature redesignated school land as general grant land of the state and directed the Department of Revenue to pay each year into the public school fund in lieu of earnings of the former school lands a sum equal to one-half of one percent of the total annual receipts derived from the management of all state land.<sup>5</sup> This annual sum includes one-half of one percent of state petroleum revenues and, therefore, exceeds previous yearly earnings of school lands. It also exceeds earnings that might reasonably have been expected from these lands in the future. (None of the school trust lands were potential oil and gas land on the North Slope.) Thus, the legislative action was considered consistent with the state's fiduciary responsibility acquired through the statehood act.

#### Assets and Earnings

Assets of the Public School Fund reported in the Monthly Investment Report of the Department of Revenue on November 30, 1981, were \$26,476,054. These assets were invested in certificates of deposit, U.S. Treasury notes and bonds, and federal agency securities with an average yield of 13.74 percent. Current annual earnings are, therefore, in the neighborhood of \$3.6 million.

Interest received from investments of the fund assets are posted directly to the general fund and are used exclusively for education. The interest earnings are shown in the executive budget as source of funds for the general budget category education which includes elementary and secondary education, information and cultural services program, and adult and post-secondary education program.

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<sup>3</sup>State of Alaska, Annual Financial Report, Fiscal Year Ending June 30, 1978. The permanent school fund should not be confused with the school fund created by AS 43.50.140.

<sup>4</sup>Chapter 182 SLA 1978. Similar changes were made in the status of mental health and university trust lands in the same bill.

<sup>5</sup>AS 37.14.100.

Management

Alaska's public school fund is managed by the Department of Revenue with other state funds. The laws pertaining to this management are found in AS 37.14.110-170 and AS 39.35.110.

Although the corpus of the fund is not large, its growth has been rapid since 1978 when the basis of annual contribution changed from actual earnings of school land to .5 percent of all proceeds from state lands. Assets of the fund have increased 240 percent between the beginning of FY 78 and approximately the mid-point of FY 1982.

TABLE C.2  
PUBLIC SCHOOL FUND ASSETS

<u>Date</u>	<u>Assets</u>	<u>Percent Change from Previous Year</u>
June 30, 1977	\$ 7,800,227	
June 30, 1978	8,531,939	9.4
June 30, 1979	9,840,198	15.3
June 30, 1980	16,982,098	72.6
June 30, 1981	24,423,000	43.8
November 30, 1981	26,476,054	

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SOURCE: June 30, 1977-1981, State of Alaska Annual Financial Reports; November 30, 1982, Department of Revenue Treasury Division, Monthly Investment Report.

### III. The Texas Permanent School Fund

Texas has a long tradition of endowing public schools through the dedication of public lands for that purpose. During the period of the Republic, vast tracts of land were set aside to establish a permanent source of revenue for the school system. When Texas joined the United States, the federal government acquired very few public lands in the state. The first state constitution provided that all public lands granted in the past or future for public schools could not be alienated and could be leased for no more than twenty years. In 1854, the Permanent School Fund was created with \$2 million of a \$10 million settlement of Texas' boundary claims paid by the federal government. Over the years, additional land was reserved for the support of public schools and proceeds from it placed in the Permanent School Fund. Each Texas constitution carefully stipulated that the principal of the fund should not be used and that only the earnings of the fund could be placed in the available school fund for appropriation for educational purposes.

Assets of the fund grew spectacularly when oil and gas were discovered on West Texas school endowment land in the 1940s and 1950s. Prior to that time, income to the fund had been primarily from land sales and grazing leases.

#### Assets and Earnings

Assets of the Texas Permanent School Fund were \$2.986 billion on August 31, 1981.<sup>6</sup> These assets were invested in U.S. Treasury notes and other government obligations, corporate bonds, municipal bonds, commercial paper, and equity securities. Debt securities comprised approximately 54 percent of total fund assets; and equity securities, approximately 45 percent. The overall rate of return on the fund was 8.1 percent at the end of FY 1981. Earnings in FY 1981 were \$217,695,445.

Income earned by the fund each year is deposited in the available School Fund and distributed to the public schools on a per capita basis derived from the previous year's average daily attendance. In fiscal year 1981, this

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<sup>6</sup>This and the following data is derived from Annual Report for Fiscal Year Ending August 31, 1981, The Permanent School Fund of Texas, Texas Education Agency, Austin, Texas, 1981.

distribution was \$83.58 per child. (In FY 1980, Texas spent \$1,658 per pupil for current and operational purposes.)<sup>7</sup>

Additions to the fund in fiscal year 1981 were \$531.2 million, of which \$509.5 million was receipts from the General Land Office and \$21.7 million was net gain from security transactions. This represents a 21.5 percent increase in the assets of the fund since the close of the previous fiscal year.

### Management

Because the Texas permanent school fund is presumably most comparable in size to an educational endowment fund that would be created in Alaska, details of its management are of special importance to this study. Therefore, copies of the statutes, regulations, and agency procedures pertinent to the operation of the fund are included in Appendix D. Also included is a copy of an article in a southwest regional trade publication, Financial Trend, about the strategy of the fund managers regarding equity investments.

## IV. The Permanent School Fund of New Mexico

### Origin and Development

By a law known as the "Ferguson Act of 1898," Congress granted to the Territory of New Mexico Sections 16 and 36 of every township for support of the common schools. The act also granted selection rights to about 5.5 million acres of public land for the support of various other public institutions and buildings. Additional federal land grants were made for the support of public schools when New Mexico became a state. The Enabling (statehood) Act provided that Sections 2 and 32 in every township were to be held in trust by the state for the support of public schools. Also, the Enabling Act specified that five percent of all revenues derived from sales of public domain land within the state were to be deposited into the state permanent school fund.

Arizona's constitution confirms these federal grants of trust lands and provides for other sources of income to the permanent school fund. Article XII, Section 2 states:

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<sup>7</sup>U.S. Census Bureau, Finances of Public School Systems in 1979-1980, p. 3.

The permanent school fund of the state shall consist of the proceeds of sales of Sections Two, Sixteen, Thirty-Two and Thirty-Six in each township of the state, or the lands selected in lieu thereof; the proceeds of sales of all lands that have been or may hereafter be granted to the state not otherwise appropriated by the terms and conditions of the grant; such portion of the proceeds of sales of land of the United States within the state as has been or may be granted by congress; also all other grants, gifts and devises made to the state, the purpose of which is not otherwise specified.

Article XII Section 4 creates the current school fund:

All fines and forfeitures collected under general laws; the net proceeds of property that may come to the state by escheat; the rentals of all school lands and other lands granted to the state, the disposition of which is not otherwise provided for by the terms of the grant or by act of congress; and the income derived from the permanent school fund, shall constitute the current school fund of the state.

Thus, several revenues are constitutionally earmarked for education in addition to earnings of the permanent school fund.

#### Assets and Earnings

At the end of fiscal year 1981, the New Mexico permanent school fund had assets of \$1.0 billion. The assets were held in the form of New Mexico securities (27.6 percent), common stock (6.8 percent), corporate bonds (32.9 percent), government-sponsored enterprises (4.4 percent), and "U.S. government direct obligations and those of instrumentalities bearing guarantee or insured" (28.3 percent). Earnings deposited to the current school fund in 1981 were \$77.5 million, equivalent to an average return of 7.8 percent (other revenue to the current school fund totaled \$98.1 million in 1981).



## Management

Day-to-day administration of the permanent school fund is the responsibility of the State Investment Officer. Investment policy is established by the State Investment Council, which gives general direction to the investment officer. The council is composed of the governor (chairman), the state treasurer, the commissioner of public lands, the secretary of finance and administration, four public members appointed by the governor (who serve without compensation), and the state investment officer. Duties and procedures of the council and investment officer are set forth in the New Mexico statutes, Article 8, 6-8-1 through 6-18-18. The statutes also establish broad legal constraints on how the corpus of the fund can be invested. With regard to equity securities, the law requires that the corporation issuing the stock have minimum assets of \$10 million; that the stock be listed on at least one national exchange; that the combined funds of the state shall not at any one time own more than 10 percent of the voting stock of a company; that not more than 50 percent of the fund may be in corporate bonds and equities. Further, the law states, "Preferred and common stocks purchased by the investment shall be held for the long-range possibility of reasonable cash dividends and growth of the capital investment. Preferred and common stocks may be sold only because of a fundamental change in their investment quality and not because of the vagaries of the market." (NMSA 6-8-9 [E]).

## V. The Permanent School Fund of Nevada

### Origin and Development

Nevada's permanent school fund, like that of Alaska and New Mexico, originated from federal land grants (Sections 16 and 36 of each township) to endow education. The constitution of the state creates a permanent school fund with proceeds derived from the trust lands and from other sources, including all fines collected under the penal laws of the state and estates that may escheat to the state. State laws earmark additional miscellaneous minor revenues for deposit to the permanent school fund.

### Assets and Earnings

Assets of the Nevada permanent school fund were \$15.3 million at the end of fiscal 1980. The fund audit report for FY 1980 shows only \$3.7 million invested, with most of the remaining assets held as cash with the state treasurer. Investments were in U.S. securities, state bonds, Nevada school district bonds, and Nevada municipal securities. No average rate of return is indicated.

Between 1979 and 1980, the fund corpus increased by \$1.5 million, 75 percent of which was derived from fines.

### Management

Management of the Nevada permanent school fund is the responsibility of the State Board of Finance (Nevada Statutes 355.010-130, 287-010-030). The purchase of securities and record keeping are the responsibility of the state treasurer and controller. The auditor's report (FY 1980) included the following statement: "A major problem encountered in auditing the Permanent School Fund is the fragmented assignment of responsibilities within the State Controller's Office for different elements affecting the Fund. No one person is responsible for all the source documents and records. Responsibility for different aspects of the Fund is not well defined" (p. 15).

## TEXAS EDUCATION CODE

## § 15.01

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CHAPTER 15. STATE FUNDS FOR THE  
SUPPORT OF PUBLIC SCHOOLS

Section	
15.01.	Composition of the Public School Funds.
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15.14.	Participation in Fully Secured Securities Loan Programs.

## § 15.01. Composition of the Public School Funds

(a) The permanent school fund, which shall constitute a perpetual endowment for the public free schools of this state, shall consist of:

(1) all land appropriated for the public schools by the constitution and laws of Texas;

(2) all the unappropriated public domain remaining in Texas, including all land recovered by the state by suit or otherwise except pine forest land as defined in Section 12, Article 2613, Revised Civil Statutes of Texas, 1925, as amended;<sup>1</sup>

(3) all proceeds from the authorized sale of permanent school fund land, or any portion thereof, surveyed or unsurveyed;

(4) all proceeds from the lawful sale of any other properties belonging to the permanent school fund;

(5) all investments (authorized in Section 15.02 of this code) of properties belonging to the permanent school fund; and

(6) all income from the mineral development of land constituting the permanent school fund, including income from mineral development of riverbeds and other submerged land.

(b) The available school fund, which shall be apportioned annually to the several counties of Texas according to the scholastic population of each, shall consist of:

(1) the interest and dividends arising from any securities or funds belonging to the permanent school fund;

(2) all interest derivable from the proceeds of the sale of land set apart for the permanent school fund;

(3) all money derived from the lease of land belonging to the permanent school fund;

(4) all revenue collected by the state from an annual state ad valorem tax of an amount not to exceed 35 cents on the \$100 valuation, exclusive of delinquencies and cost of collection;

(5) one-fourth of all revenue derived from all state occupation taxes, exclusive of delinquencies and cost of collection;

(6) \$1 dollar from each poll tax collected by the state, exclusive of cost of collection;

(7) one-fourth of revenue derived from state gasoline and special fuels excise taxes as provided by law; and

(8) all other appropriations to the available school fund as made or may be made by the legislature for public free school purposes.

(c) The term "scholastic population" in Subsection (b) of this section, and when and wherever found in the several laws governing the apportionment, distribution, and transfer of the state available school fund, is hereby defined to mean and include all pupils within scholastic age enrolled in average daily attendance the next preceding scholastic year in the public elementary and high school grades of school districts within or under the jurisdiction of a county of this state. The basis provided herein for the apportionment, distribution, and transfers of the

state available school fund shall be applicable to such fund to be apportioned for the year beginning September 1, 1969, and annually thereafter.

[Acts 1969, 61st Leg., p. 2799, ch. 889, § 1, eff. Sept. 1, 1969; Acts 1971, 62nd Leg., p. 1489, ch. 405, § 17, eff. May 26, 1971.]

<sup>1</sup> Repealed, see, now, § 88.111.

#### § 15.02. Investment of Permanent School Fund

(a) In compliance with provisions of this section, the State Board of Education is authorized and empowered to invest the permanent school fund in the types of securities, which must be carefully examined by the State Board of Education and be found to be safe and proper investments for the fund as specified below:

(1) securities, bonds, or other obligations issued, insured, or guaranteed in any manner by the United States Government or any of its agencies; and in bonds issued by the State of Texas;

(2) obligations and pledges of The University of Texas;

(3) corporate bonds, debentures, or obligations, of United States corporations of at least "A" rating;

(4) bonds issued, assumed, or guaranteed by the Inter-American Development Bank, the International Bank of Reconstruction and Development (the World Bank), and the Asian Development Bank;

(5) bonds of counties, school districts, incorporated cities or towns, road precincts, drainage, irrigation, navigation, and levee districts in Texas, under the following rules and regulations:

(A) such securities, prior to their purchase, must have been diligently investigated by the attorney general of Texas both as to their form and as to their legal compliance with applicable laws;

(B) the attorney general's certificate of validity procured by the party offering such bonds, obligations, or pledges must accompany these securities when they are submitted for registration to the state comptroller, who must preserve the certificates;

(C) these public securities, if purchased, and when certified and registered as specified above, shall be incontestable unless issued fraudulently or in violation of a constitutional limitation, and the certificates of the attorney general shall be prima facie evidence of the validity of the bonds and coupons thereto; and

(D) after the issuing political subdivision of Texas has received the proceeds from

the sales of such public securities, the issuing agency shall be estopped to deny their validity, and the same shall be held to be valid and binding obligations;

(6) preferred stocks and common stocks as to the State Board of Education may deem to be proper investments for the permanent school fund, under the following rules and regulations:

(A) in making all such investments the State Board of Education shall exercise the judgment and care under the circumstances then prevailing which men of ordinary prudence, discretion, and intelligence exercise in the management of their own affairs, not in regard to speculation but in regard to the permanent disposition of their funds, considering the probable income therefrom as well as the probable safety of their capital;

(B) stocks eligible for purchase are restricted to stocks of companies incorporated within the United States which have paid dividends for five consecutive years or longer immediately prior to the date of purchase and which, except for bank stocks and insurance stocks, are listed upon an exchange registered with the Securities and Exchange Commission or its successors;

(C) not more than one percent of the permanent school fund may be invested in stock issued by one corporation nor shall more than five percent of the voting stock of any one corporation be owned;

(D) at the discretion of the State Board of Education, corporate securities of the permanent school fund may be sold and the proceeds reinvested for the fund under the terms of this code; and

(7) notwithstanding any other law or provisions in this code, first lien real estate mortgage securities insured by the Federal Housing Administration under the National Housing Act of the United States,<sup>1</sup> as amended from time to time, or in any other first lien real estate mortgage securities guaranteed in whole or in part by the United States Government or any agency thereof.

(b) to (g) Repealed by Acts 1979, 66th Leg., p. 1537, ch. 661, § 2, eff. June 13, 1979.

[Acts 1969, 61st Leg., p. 2799, ch. 889, § 1, eff. Sept. 1, 1969; Acts 1971, 62nd Leg., p. 1490, ch. 405, § 18, eff. May 26, 1971; Acts 1971, 62nd Leg., p. 1668, ch. 472, § 3, eff. Aug. 30, 1971; Acts 1977, 65th Leg., p. 1957, ch. 779, § 1, eff. June 16, 1977; Acts 1979, 66th Leg., p. 1535, ch. 661, §§ 1, 2, eff. June 13, 1979.]

<sup>1</sup> 12 U.S.C.A. § 1701 et seq.

DELETED BY §§ 977 ISSUED BY GOV. 6/16/77

§ 15.03. Purchase and Sale or Exchange of Securities.

(a) The State Board of Education may authorize the purchase of all of the types of securities in which it is authorized by law to invest the permanent school fund in either registered or negotiable form; and it may authorize the reissue of such securities held at any time for the account of the permanent school fund in either registered or negotiable form. The State Board of Education may authorize the sale of any of the securities held for the account of the permanent school fund and reinvest the proceeds of sale for the fund; and it may authorize the exchange of any of the securities held for the account of the permanent school fund.

\* (1) None may be sold for a price less than the actual amount of money of the permanent school fund invested in it;

\* (2) None may be exchanged for a public security having a principal value less than the principal value of the security exchanged; and

(b) In making each and all of such purchases, sales, exchanges and reissues the State Board of Education shall exercise the judgment and care under the circumstances then prevailing which men of ordinary prudence, discretion, and intelligence exercise in the management of their own affairs not in regard to speculation but in regard to the permanent disposition of their funds, considering the probable income therefrom as well as the probable safety of their capital.

(c) When any securities are sold, reissued, or exchanged as provided in Subsection (a) of this section, the custodian of such securities shall make delivery of the securities sold, reissued, or exchanged in accordance with the directions of the State Board of Education.

[Acts 1969, 61st Leg., p. 2801, ch. 889, § 1, eff. Sept. 1, 1969; Acts 1977, 65th Leg., p. 1958, ch. 779, § 2, eff. June 16, 1977; Acts 1979, 66th Leg., p. 1537, ch. 661, § 3, eff. June 13, 1979.]

§ 15.04. Treatment of Premium and Discount

(a) If the State Board of Education authorizes the payment of a premium out of the permanent school fund in the purchase of any bond, obligation, or pledge as an investment for that fund, then the principal of such securities and an amount of the interest first accruing thereon equal to the premium so paid shall be treated as principal in such investment, and when the first interest is collected, the amount of the premium shall be returned to the permanent school fund.

(b) If the State Board of Education authorizes the purchase of a public security at less than par, the interest received in the purchase shall be paid to the

available school fund when the bonds, obligations, or pledges are paid off and discharged.

[Acts 1969, 61st Leg., p. 2802, ch. 889, § 1, eff. Sept. 1, 1969.]

§ 15.05. Prepayment of Certain Bonds Held by the Permanent School Fund

(a) The State Board of Education may authorize the governing body of any school district or political subdivision in Texas to pay off and discharge, at any interest paying date whether the bonds are matured or not, all or any part of any outstanding bond indebtedness now owned or hereafter to be owned by the permanent school fund, under the rules and regulations of this section.

(b) The governing body of the respective political subdivision desiring to pay off and discharge any such bonded indebtedness owned by the fund shall make such desire known by direct application in writing to the State Board of Education, at least 30 days before any interest paying date on the bonds, describing the bonds or part thereof it desires to pay off and discharge. The application shall be accompanied by an affidavit stating that only such tax money as may be collected by virtue of tax levy made for the specific purpose of providing a sinking fund and paying interest on the particular bonds to be redeemed shall be expended in the redemption, taking up, or paying off the bonds.

(c) The State Board of Education upon receipt of such application and affidavit shall take action on them in such manner as it may deem best and notify the applicant whether the application is refused or granted in whole or in part.

(d) It shall be unlawful for any person on whom any duty rests in carrying out the provisions of this section to give or receive any commission, premium, or compensation for the performance of such duty.

(e) Only such tax money as had been collected by virtue of tax levies made for the specific purpose of providing a sinking fund and paying interest on the particular bonds to be redeemed shall be expended in the redemption, taking up, or paying off of such bonds as provided in this section, unless such bonds are being redeemed for the purpose of being refunded.

[Acts 1969, 61st Leg., p. 2802, ch. 889, § 1, eff. Sept. 1, 1969.]

§ 15.06. Default of School District Securities Held by the Permanent School Fund

(a) If interest and/or principal has not been paid for two years or more on any bonds issued by any school district (city controlled or otherwise) and held by the permanent school fund, the State Board of Education shall have the authority described in this section.

(b) The State Board of Education may compel any school district to levy a tax sufficient to meet the interest and principal payments as then or later due.

(c) If any such district furnishes to the State Board of Education satisfactory proof that its taxing ability is insufficient, the State Board of Education may require the district to exhaust all legal remedies in collecting taxes then delinquent, and to levy a tax at the maximum lawful rate on the bona fide valuation of taxable property located in the district.

(d) Revenue collected by either method specified in Subsections (b) and (c) of this section shall be distributed proportionately to all owners of the defaulted securities and shall be in compliance with the following rules:

(1) The proportionate share for each owner will be based on the interest and principal requirements of the original security before authorized refunding; and

(2) Prior acceptance of refunding securities will not reduce an owner's proportionate share.

(e) As long as any such school district is delinquent in its payments of principal and/or interest on any of its bonds owned by the permanent school fund, the State Board of Education shall have the authority to specify the method of crediting payments to the state made by the district as to principal and interest.

(f) The comptroller of public accounts shall not issue any warrant from the foundation school fund to or for the benefit of any district which has been for as long as two years in default in the payment of principal or interest on any security owned by the permanent school fund unless and until the State Board of Education certifies that the district has satisfactorily complied with the appropriate provisions of this section, in which event the comptroller shall resume making payments to or for the benefit of the district, including the making of premitted payments.

[Acts 1969, 61st Leg., p. 2803, ch. 889, § 1, eff. Sept. 1, 1969.]

§ 15.07. Authorized Refunding of Defaulted School Bonds

(a) In compliance with the provisions of this section, the State Board of Education is authorized to revise, readjust, modify, refinance, or refund defaulted bonds issued by any school district in Texas and owned by either the permanent school fund or the available school fund.

(b) Application must be made to the State Board of Education by the district which issued the bonds and must show that:

(1) delinquent interest totals at least 50 percent of the principal amount of the bonds; and

(2) taxable valuation has decreased to such an extent that a full application of the proceeds of the voted authorized tax authorized to be levied on the \$100 taxable property valuation will not meet interest and principal annually maturing on the bonds.

(c) The State Board of Education may effect a refunding of the debt due and to become due only if the board finds that:

(1) the district is unable to pay the sums already matured and the sums contracted to be paid as they mature by paying annually to the State Board of Education the full proceeds of a 50-cent tax levy on the \$100 of all taxable valuation of property within the district;

(2) the taxable valuation of property in the district has decreased at least 75 percent since the bonds were issued and that the decrease was not caused by the district or any of its officials;

(3) the district for a period of at least five years before applying to the State Board of Education for refunding has levied a tax of 50 cents on the \$100 of taxable valuation of property in the district, and that despite such levies, the aggregate amount due the State Board of Education exceeds the aggregate amount due at the beginning of the period;

(4) no additional bonds of the district have been authorized and sold during the five-year period immediately preceding the application; and

(5) the district has in good faith endeavored to pay its debt in accordance with the contract evidenced by the bonds held for the account of the permanent school fund or the available school fund.

(d) If the conditions specified in Subsection (c) of this section are found to exist, the district shall, for the purposes of this section, be deemed to be insolvent, and the State Board of Education may exchange the bonds, interest coupons, and other evidences of indebtedness for new refunding bonds of the district issued in compliance with the following regulations:

(1) The principal amount of the refunding bonds shall not be less than the total amount of the bonds, matured interest coupons, accrued interest, and interest on delinquent interest then actually due to the permanent school fund and/or the available school fund;

(2) The rate of interest to be borne by the refunding bonds may be lower than that borne by the bonds to be refunded if in consideration of the interest reduction the district agrees to levy a tax each year for a period of 40 years at a rate sufficient to produce annually a sum equal to 90 percent of the amount that can be calcu-

lated by the levy of a tax at the rate of 50 cents on the \$100 of taxable valuation of property as determined by the latest approved tax roll of the district, and in determining the rate of interest to be borne by the refunding bonds, the State Board of Education shall be governed by the following:

(A) The State Board of Education is authorized to require the rate to be such percent per annum as in its judgment will represent the maximum rate that can be paid by the district and still permit an orderly and certain retirement of the refunding bonds within 40 years from their date;

(B) The interest rate of refunding bonds to be received in exchange for bonds owned by the permanent school fund shall not be less than the minimum rate at which bonds may then be purchased as investments for the permanent school fund; and

(C) The rate of interest of refunding bonds to be received in exchange for bonds owned by the available school fund may be set by the State Board of Education at any rate which it deems feasible, and such refunding bonds may, at the discretion of the State Board of Education, be made non-interest bearing to such date as may be fixed by the board.

(e) No revision, readjustment, modification, refinancing, or refunding shall be made by the State Board of Education that will release or extinguish any debt or obligation then due and payable to the permanent school fund or to the available school fund.

(f) Except as otherwise provided or permitted by this section, the refunding of the bonds of school districts herein authorized shall be in compliance with the general provisions with regard to the refunding of school district bonds as specified in this code.

[Acts 1969, 61st Leg., p. 2803, ch. 889, § 1, eff. Sept. 1, 1969.]

#### § 15.08. Refunding Other Defaulted Obligations

(a) Defaulted obligations (other than bonds of school districts as provided in Section 15.07 of this code) due the available school fund may be refinanced or refunded with the approval of the State Board of Education in compliance with the provisions of this section.

(b) "Defaulted obligations," as used herein, shall include delinquent interest whether represented by coupons or not, interest on delinquent interest, and any other form of obligation due the available school fund.

(c) The obligor must make application to the State Board of Education and show:

(1) that the obligations due the available school fund have been in default in whole or in part for a continuous period of at least 15 years; and

(2) that the obligor is not in default in the payment of the principal of any bonds owned by the permanent school fund.

(d) If the State Board of Education finds that the above-specified requirements have been met, it may approve a refinancing or the issuance of refunding bonds on the conditions:

(1) that the refunding bonds must mature serially in not exceeding 40 years from the date of issuance;

(2) that the principal amount of the refunding bonds shall be not less than the total amount of the obligations then in default and due the available school fund;

(3) that the refunding bonds shall bear interest at such rate or rates as may be determined by the State Board of Education to be for the best interest of the available school fund.

(e) The State Board of Education in its discretion is authorized to accept refunding bonds in lieu of either matured or unmatured bonds held for the benefit of the permanent school fund, provided that the rate of interest on the new refunding bonds is at least the same rate as that of the bonds being refunded.

(f) Refunding bonds issued with the approval or pursuant a refunding agreement with the State Board of Education in compliance with either this section or Section 15.07 shall, on the order of the State Board of Education, be exchanged by the state treasurer for the defaulted obligations they have been issued to refund.

[Acts 1969, 61st Leg., p. 2805, ch. 889, § 1, eff. Sept. 1, 1969.]

#### § 15.09. Jurisdiction

The district courts of Travis County shall have jurisdiction of any suit on bonds or obligations belonging to the permanent school fund, or purchased therewith, concurrent with that of any other court having jurisdiction in said case.

[Acts 1969, 61st Leg., p. 2806, ch. 889, § 1, eff. Sept. 1, 1969.]

#### § 15.10. Duties of the State Comptroller of Public Accounts

(a) On or before July 1 of each year, the comptroller of public accounts shall estimate the amount of the available school fund receivable from every source during the coming scholastic year and report this estimate to the State Board of Education.

(b) On or before the meeting of each regular session of the legislature, the comptroller of public accounts shall report to the legislature an estimate of the amount of the available school fund to be received for the succeeding two years, and the several sources from which the same accrues, and which may be subject to appropriation for the establishment and support of public schools.

(c) On or before the first working day of each month, the comptroller shall certify to the state commissioner of education the total amount of money collected from every source during the preceding month and on hand to the credit of the available school fund.

(d) On receipt of certificates issued to him by the commissioner of education, the comptroller shall draw his warrants on the state treasurer and in favor of the treasurer (depository) of the available school fund of each school district for the amounts stated in the certificates. All such warrants shall be registered and transmitted to the state treasurer. [Acts 1969, 61st Leg., p. 2806, ch. 889, § 1, eff. Sept. 1, 1969.]

§ 15.11. Duties of the State Treasurer

(a) At least 30 days before each regular session of the legislature and 10 days before any special session at which there can be legislation respecting the public schools, the state treasurer shall report to the governor the condition of the permanent school fund and the available school fund, the amount of each and the manner of its disbursement.

(b) The treasurer shall provide the State Board of Education with the reports specified in Subsection (a) of this section, and with such additional reports as to those funds which the State Board of Education may request.

(c) The treasurer shall see to it that no portion of either the permanent school fund or the available school fund is used to pay any warrant drawn against any other fund.

(d) The treasurer shall receive and hold in a special deposit and keep account for all properties belonging to the available school fund. All warrants drawn on this fund by the comptroller of public accounts pursuant to certificate of the state commissioner of education must be registered by the state treasurer and then transmitted to the commissioner of education; and when properly endorsed shall be paid by the treasurer in the order of their presentation.

(e) On order of the State Board of Education, the treasurer shall exchange or accept refunding bonds in lieu of:

- (1) either matured or unmatured bonds held for the benefit of the permanent school fund, which are being refunded under the terms of this chapter;

(2) defaulted obligations held for the benefit of the available school fund, provided that the refunding bonds are issued in compliance with Section 15.08 of this code;

(3) defaulted obligations of any school district of Texas held for the benefit of the permanent school fund or the available school fund, provided the refunding bonds are issued in compliance with Section 15.07 of this code;

(4) refunding bonds of any school district of Texas for school bonds not matured held by the state treasurer for the permanent school fund, when such new refunding bonds are issued by the school district in compliance with this code.

(f) The state treasurer shall be the custodian of all securities enumerated in Subdivision (5) of Subsection (a) of Section 15.02 of this code and of such other securities as may be designated from time to time by the State Board of Education in which the school funds of the state have been or may hereafter be invested, and shall keep these securities in his custody until paid off, discharged, delivered as required by the State Board of Education, or otherwise disposed of by the proper authorities of the state, and on the proper installment of any interest or dividend, shall see that the proper credit is given, and the coupons on bonds, when paid, shall be properly separated therefrom and cancelled by the treasurer.

[Acts 1969, 61st Leg., p. 2806, ch. 889, § 1, eff. Sept. 1, 1969; Acts 1979, 66th Leg., p. 1537, ch. 661, § 4, eff. June 13, 1979.]

§ 15.12. Use of Available School Fund

(a) All available public school funds of Texas shall be appropriated in each county for the education of its children.

(b) No part of the permanent school fund or the available school fund shall be appropriated or used for the support of any sectarian school.

(c) Repealed by Acts 1979, 66th Leg., p. 1326, ch. 602, § 35(a), eff. Aug. 27, 1979.

[Acts 1969, 61st Leg., p. 2807, ch. 889, § 1, eff. Sept. 1, 1969; Acts 1975, 64th Leg., p. 2378, ch. 734, § 3, eff. June 21, 1975; Acts 1979, 66th Leg., p. 1326, ch. 602, § 35(a), eff. Aug. 27, 1979.]

§ 15.13. Use of Commercial Banks as Agents for Collection of Income from Permanent School Fund Investments

(a) The State Board of Education is authorized and empowered to contract with a commercial bank or banks to receive payments of dividends and interest on securities in which the state permanent school funds are invested and to transmit such money with identification of their source to the state treasurer



for the account of the available school fund by the fastest available means.

(b) In choosing each commercial bank or banks with which to contract as authorized in Subsection (a) of this section, the State Board of Education shall assure itself of:

- (1) the financial stability of such commercial bank;
- (2) the location of such commercial bank with respect to its proximity to the banks upon which checks are drawn in payment of dividends and interest on securities of the permanent school fund;
- (3) the experience and reliability of such commercial bank in acting as agent for others in the similar collection and expeditious remittance of money; and
- (4) the reasonableness of such commercial bank's charges for such services, both in amount of such charges and in relation to the increased investment earnings of the available school fund which will result from speedier receipt by the state treasurer of such money.

[Acts 1979, 66th Leg., p. 1538, ch. 661, § 5, eff. June 13, 1979.]

#### § 15.14. Participation in Fully Secured Securities Loan Programs

(a) The State Board of Education is authorized and empowered to contract with a commercial bank or banks to serve both as a custodian of securities in which the state permanent school funds are invested and to lend these securities, under the conditions set out in Subsection (b) of this section, to securities brokers and dealers on short-term loan.

(b) The State Board of Education may contract with a commercial bank or banks pursuant to this section only in accordance with the following requirements:

- (1) the bank shall be located in a city having a major stock exchange;
- (2) the bank shall be experienced in the operation of a fully secured securities loan program;
- (3) the bank shall have adequate capital in the prudent judgment of the State Board of Education to assure the safety of the securities entrusted to it as a custodian;
- (4) the bank shall require of any securities broker or dealer to which it lends securities owned by the state permanent school fund that such broker or dealer deliver to it cash collateral for such loan of securities, which cash collateral shall at all times be not less than 100 percent of the market value, from time to time, of such securities lent;

(5) the bank shall execute an indemnification agreement, satisfactory in form and content to the State Board of Education, fully indemnifying the permanent and available school funds against loss resulting from the bank's service as custodian of securities of the permanent school fund and its operation of a securities loan program using securities of the permanent school fund;

(6) the bank shall speedily collect and remit on the day of collection by the fastest available means to the state treasurer any dividends and interest collectible by it on securities held by it as custodian together with identification as to source; and

(7) the bank or banks chosen shall be the bank or banks agreeing to pay to the available school fund the largest sum or highest percentage of the income derived by it from use of the securities of the permanent school fund in the operation of a securities loan program.

[Acts 1979, 66th Leg., p. 1538, ch. 661, § 6, eff. June 13, 1979.]

12.03 Investment of the Permanent School Fund

Authority: Section 15.02, Texas Education Code.

.010 Investment Authority

The State Permanent School Fund shall be invested in accordance with constitutional and statutory law, as directed by the State Board of Education.

.020 Standard of Care in Investing Permanent School Funds (Repealed).030 Goal and Objectives for the Permanent School FundStatutory Citation

In making each and all investments, the State Board of Education shall "exercise the judgment and care under the circumstances then prevailing which men of ordinary prudence, and discretion, and intelligence exercise in the management of their own affairs not in regard to speculation but in regard to the permanent disposition of their funds, considering the probable income therefrom as well as the probable safety of their capital." (Section 15.02(a)(6)(A), Texas Education Code)

Rule

## (a) Goal

The goal of the State Board of Education for the State Permanent School Fund shall be to obtain the greatest amount of total income consistent with the safety of principal. To achieve this goal, there shall be a continuing careful administration of the investment of the Permanent School Fund including the thorough investigation and analysis of securities available for purchase and the continuous study and review of all securities held in the portfolio of the Permanent School Fund.

## (b) Objectives

- (1) The preservation and safety of principal shall be a primary consideration in the investment of the Permanent School Fund.
- (2) Fixed income securities shall be purchased at the highest income return consistent with safety and preservation of principal emphasizing current rather than deferred income.

- (3) The administrators of the Permanent School Fund shall hedge, insofar as possible, against inflation through the purchase of equities emphasizing stability and growth of future earnings and dividends rather than current return.
- (4) Securities shall be selected for investment on the basis of long term investment merits rather than short term gains with the exception of investments for cash management purposes as provided in Section .072 of these rules.

.040 Investment Program

"Investment program" shall be defined as the investments made in each period between meetings of the State Board of Education.

.041 Authorized Investments of the Permanent School Fund:  
Fixed Income Securities (Repealed)

.042 Authorized Investments of the Permanent School Fund: Equity  
Securities (Repealed)

.050 Long-range Diversification Pattern

The percentage division of proposed investments between fixed income and equity securities and the industry diversification within each of these groups shall be determined periodically by the Board Investment Committee with the advice of investment staff, the investment counsel, and the Investment Advisory Committee.

.060 Approved List of Corporations for Security Purchases

The specific corporations to be included in the list of approved corporations or deleted therefrom shall be recommended by the investment officer, acting with the advice of investment counsel and the investment staff, and approved by the State Board of Education.

.061 Equity Transactions

- (a) All equity securities must be purchased from the approved list of corporations for security purchases.
- (b) Specific equities from the approved list to be purchased or sold, including a recommended price, shall be approved by the Board Investment Committee. All transactions shall be made within 10% or better of the recommended price unless otherwise specified by the Board Investment Committee.
- (c) All consummated transactions shall be reported in writing to the Board Investment Committee at the first subsequent meeting of the committee.

.062 Fixed Income Transactions

- (a) Any fixed income security on the approved list of corporations for security purchases with at least an "A" rating may be purchased.
- (b) Fixed income securities not on the approved list may be purchased if they meet the quality standards set forth in the investment operating manual.
- (c) Specific Fixed income securities to be sold shall be approved by the Board Investment Committee. A recommended price may be included at the discretion of the committee.
- (d) All consummated transactions shall be reported in writing to the Board Investment Committee at the first subsequent meeting of the committee.

.070 Approved Brokerage Firms for Equity Transactions

- (a) Under the direction of the investment officer, normal purchase and sale transactions shall be effected through brokerage firms on the approved list. Additions or deletions to the list of approved brokerage firms shall be submitted by the investment officer for approval by the Board Investment Committee.
- (b) Equity brokerage commissions shall be allocated among the approved firms on a basis established by the Board Investment Committee and shall be reported in writing to the Board Investment Committee.

.071 Brokerage Firms for Fixed Income Transactions

- (a) Transactions shall be conducted on a net basis with well established, financially secure brokerage firms having fixed income trading capability.
- (b) Purchases shall be reported in writing to the Board Investment Committee by brokerage firm name on a par value basis.

.072 Cash Management

Excess funds not needed for immediate investment shall be placed by the investment staff in appropriate short-term fixed income securities for the purpose of obtaining the highest income available consistent with safety of principal.

.081 Restrictions and Limitations of Investments: Fixed Income Securities (Repealed)

.082 Restrictions and Limitations of Investments: Equity Securities  
(Repealed)

.090 Quality Standards (Repealed)

.100 Items Requiring State Board of Education Approval

- (a) The following items require approval by the State Board of Education:
- (1) the total amount of funds to be invested in each investment program (Rule 226.12.03.040);
  - (2) the allocation between equity and fixed income securities in each investment program (Rule 226.12.03.040);
  - (3) authorization for short-term investments in each investment program (Rule 226.12.03.072);
  - (4) the approved list of corporations for security purchases (Rule 226.12.03.060);
  - (5) the appointment of members to the Investment Advisory Committee (Rule 226.12.03.110); and
  - (6) the contract with the investment counsel (Rule 226.12.03.111).
- (b) The status of the Permanent School Fund shall be reported in writing to the State Board of Education at each regular meeting of the board.

.110 Committees

To administer the affairs of the Permanent School Fund, the following committees shall be established:

- (1) Board Investment Committee
- (A) A committee of six or more members of the State Board of Education with the Chairman of the Board serving as an ex officio member shall be appointed by the Chairman of the Board.
  - (B) The total amount of funds to be invested for each investment program and the allocation between equities and fixed income securities shall be recommended by the Board Investment Committee to the State Board of Education.
  - (C) The committee shall direct the activities of the investment officer in implementing the policies of the State Board of Education concerning investment of the Permanent School Fund.

- (D) The committee shall direct and monitor each board approved investment program, and counsel with and receive reports from the investment officer, Investment Advisory Committee, and investment counsel.
- (E) Specific stocks to be purchased or sold shall be approved by the Board Investment Committee.
- (F) Specific fixed income securities to be sold shall be approved by the Board Investment Committee.
- (G) Changes in the list of approved brokerage firms for equity transactions shall be approved by the Board Investment Committee.

(2) Investment Advisory Committee

- (A) A committee of five members having investment backgrounds and responsibilities, such as representatives of commercial banks, industrial corporations, public utilities, and insurance companies, shall be appointed by the State Board of Education.
- (B) Members of the committee shall be appointed for three-year terms.
- (C) The terms of the members of the committee shall be staggered so that at all times a majority of the members will have had experience on the committee.
- (D) The committee shall meet in Austin quarterly and at the call of the chairman of the Board Investment Committee or the chairman of the State Board of Education. A schedule of regular meetings shall be fixed annually by the Board Investment Committee.
- (E) The committee shall provide an independent and continuous review of the investment policies, procedures and nature of investments, and shall advise with reference to investment plans and programs. Advice shall include, but not be limited to, recommendations concerning changes in the diversification pattern, changes in the method of developing the list of approved corporations, and security purchase and sale patterns. Advice shall not include any recommendation regarding specific securities or corporations.

.111 Investment Counsel

- (a) A professional investment counseling firm shall be recommended by the Board Investment Committee and retained by the State Board of Education.

- (b) The investment counseling firm shall be a firm of national scope which has:
- (1) a large and complete research division for the analysis of industries and individual corporations;
  - (2) an economics department competent in analysis and forecasts in all facets affecting the general economy or the economy of particular industries; and
  - (3) an organization that will provide for combining the knowledge and judgments of all departments in order that the advice and recommendations made to the Permanent School Fund will have evolved from the opinions of many rather than one individual.
- (c) The investment counsel shall serve in an advisory capacity only and shall advise on both policy and on specific securities transactions. Within the policy framework established by the State Board of Education, the investment counsel's advice or recommendations shall include:
- (1) the economic conditions in prospect;
  - (2) diversification of investments between equities and fixed income securities;
  - (3) proper diversification among industries;
  - (4) the companies in each industry which are the most attractive;
  - (5) specific stocks and/or corporate bond issues; and
  - (6) general advice on the timing of purchases and sales.

.112 Investment Staff

The Texas Education Agency shall have an investment officer, with a staff to be adjusted as necessary, who functions directly with the Board through the Board Investment Committee concerning investment matters, and who functions as part of the internal operation through the office of the Deputy Commissioner for Program Administration and Finance.

.120 Specific Authorizations and Requirements (Repealed)

.130 Provision for Emergency Action

In case of emergency or urgent public necessity, the Board Investment Committee or the State Board of Education, as appro-

priate, may hold an emergency meeting in accordance with Article 6252-17, V.T.C.S.

.140 Investment Operating Manual

The investment staff shall develop and maintain an Investment Operating Manual.

.150 System of Internal Controls

- (a) There shall be a system of internal controls. The system of internal controls shall be documented. The objective of internal control is to provide reasonable assurance as to the safeguarding of assets against loss from unauthorized use or disposition, and the reliability of financial records for preparing financial statements and maintaining accountability for assets.
- (b) The system of internal controls shall be reviewed and tested at least once each year by the Division of Audits, Texas Education Agency.

.160 Proxies

In general, proxies shall be voted with management. Unusual situations, where such a vote might be detrimental to the Permanent School Fund, shall be brought to the attention of the Board Investment Committee by the investment officer. Such proxies shall be voted as directed by the Board Investment Committee.

Board Action and Date  
Adopted: May 1972  
Amended: October 1977  
May 1980

Effective Date  
November 1, 1977  
June 9, 1980



INVESTMENT OPERATING MANUAL FOR THE  
STATE PERMANENT SCHOOL FUND

The following Investment Operating Manual for the State Permanent School Fund is promulgated under the authority of and in compliance with Rules 226.12.03.010 - .160, The Investment Program of the Permanent School Fund, approved by the State Board of Education on May 10, 1980. The volume also contains an appendix which is developed, maintained and changed as needed by the Investment Office.

A. Duties and Responsibilities of the Investment Staff

1. Staff will carry into effect all orders of the State Board of Education and the Board Investment Committee and handle all details of purchasing, paying for, obtaining delivery on, and checking the securities purchased.
2. Staff will conduct a continuous research program into all securities held by the Permanent School Fund and report to the Board Investment Committee any pertinent information, including reports and statistics on the status of the Permanent School Fund, for guidance in administering the Fund.
3. Staff will make recommendations regarding investment matters to the Board Investment Committee.
4. Staff will keep fully informed regarding all market and economic conditions which might affect present or future investments of the Permanent School Fund.
5. Staff will maintain a close liaison with the Investment Advisor(s) and furnish any information regarding the Permanent School Fund to such Advisor(s) as is requested. Also, staff will be prepared to offer investment opinions to the Board Investment Committee regarding the Advisor's investment recommendations.
6. Staff will keep records on all security purchases, sales, and redemptions; maintain individual accounts for each issue in the portfolio and post all entries to same; keep records on discounts received and premiums paid on bonds and initiate action for transfer of premiums; maintain controls on (1) total investments of the Permanent School Fund, (2) investments by classes of securities and type of issuing agency, (3) outstanding purchase commitments, (4) accrued interest paid on purchases, (5) interest collected by categories, (6) cash balance of Permanent School Fund, and (7) balance books with controls, the State Treasurer's and the State Comptroller's balances.
7. Staff will perform all necessary liaison duties pertaining to the Permanent School Fund which involve the State Board of Education, Attorney General's Department, the State Comptroller, the State Treasurer, banks, and other interested parties.

8. Staff will advise officials, investment houses and interested individuals regarding the powers, limitations, and prohibitions involved in investing the Permanent School Fund which have been placed upon the State Board of Education by statutes, Attorney General's opinions, and court decisions, and of the policies and operating procedures of the State Board of Education with respect to the investment of the Permanent School Fund.

B. Administration

The placement of the administration of the Investment Program within the Texas Education Agency shall be in accordance with the most recently approved organizational chart.

C. Securities Transactions

1. Securities transactions will be conducted only by those personnel specifically designated by the Investment Officer.
2. Stock Rights and Warrants; Stock Splits
  - a. The decision to sell or exercise a right or a warrant is to be made by the Board Investment Committee.
  - b. Fractional shares received from splits or dividends are to be sold.
3. Trading profits and losses on all securities are credited or charged to the principal of the Fund.
4. Securities will be purchased for long-term investment purposes, and not for speculation.
5. Equity securities are to be purchased on a modified dollar cost averaging principle. Purchases are to be made as funds become available.
6. The Board Investment Committee may authorize exchanges of fixed income securities into other fixed income securities within the guidelines stipulated by the State Auditor.
7. To be eligible for purchase, corporate fixed income securities, (with the exception of Commercial Paper - See #9 below), which are not on the approved list for security purchases must;
  - a. Meet statutory requirements. In meeting the statutory requirement of at least an "A" rating for fixed income securities (Texas Education Code, Section 15.02 (a)(3), the "A" rating must have been issued for the particular debt issue in question by a major bond rating service. And,
  - b. Meet or exceed the following financial statement standards. These standards apply to the initial purchase only, and are computed as averages of the past five years.

(1) Public Utility Companies

$\frac{\text{Earnings for Fixed Charges}}{\text{Fixed Charges}}$	at least 2.5x
$\frac{\text{Earnings for Fixed Charges}}{\text{Total Fixed Obligations}}$	at least 18%
$\frac{\text{Total Fixed Obligations}}{\text{Total Invested Capital}}$	not to exceed 60%
$\frac{\text{Total Invested Capital}}{\text{Fixed Charges}}$	at least 30x

(2) Industrial Companies

$\frac{\text{Earnings for Fixed Charges}}{\text{Fixed Charges}}$	at least 7x
$\frac{\text{Earnings for Fixed Charges}}{\text{Total Fixed Obligations}}$	at least 30%
$\frac{\text{Total Fixed Obligations}}{\text{Total Invested Capital}}$	not to exceed 35%
$\frac{\text{Net Current Assets}}{\text{Total Fixed Obligations}}$	at least 100%

(3) Railroad Companies

$\frac{\text{Earnings for Fixed Charges}}{\text{Fixed Charges}}$	at least 4x
$\frac{\text{Earnings for Fixed Charges}}{\text{Total Fixed Obligations}}$	at least 22%
$\frac{\text{Total Fixed Obligations}}{\text{Total Invested Capital}}$	not to exceed 50%
Margin of Safety	at least 12%

8. Corporate fixed income securities may be purchased only at yields which exceed by 1/4% (25 basis points) the yields on the highest yielding U. S. Treasury Bond of comparable length maturity.
9. Purchases of Commercial Paper\* will be limited to the highest grade then available. Commercial Paper need not be on the Approved List of Corporations for Securities Purchases nor meet the above listed financial statement ratio standards for long-term fixed income purchases.

D. Selection of Securities Brokers

1. Equity Brokers

(\*) A short-term note which matures in less than 1 year.

Will be recommended by staff for approval by the Board Investment Committee.

2. Fixed Income Brokers

Properly designated staff members will distribute business among those firms which;

- a. Offer sound information and advice.
- b. Offer the best possible price.
- c. Offer the most efficient handling of orders.
- d. Are willing to commit capital to assist in trades.

E. Approved List of Corporations for Securities Purchases  
(Latest approved list to be placed here)

F. Document of Internal Controls  
(To be developed)

# Million-a-Day Money Minders

## Texas Permanent School Fund Managers Fight Inflation, Eye Children of Future

By SAM WEINER

"When we buy a stock and it goes down, that doesn't bother anybody. Next week we can buy it at a better yield and cheaper."

"We think that hindsight is better than foresight. We think that the history of what a company has done is better than what an analyst tells us it's going to do in the next 10 years."

"We wouldn't buy a company whose earnings have had an explosion in the past three or four or five years where their 10-year growth rate would seem to be unrealistic."

Those are the kinds of comments that *Financial Trend* got when chatting with Jim M. Hooks Jr., one of a small group of Texans who have something like \$1 million a day at their disposal to invest in stocks and bonds.

The others who join with ex-stockbroker Hooks in reaching decisions on which stocks and bonds to invest that huge daily cash flow in are a cross-section of Texas' citizenry — a San Antonio real estate man, a La Marque oilman, a Houston surgeon, a De Soto newspaper publisher, a retired Greenville banker, and a Lubbock businessman.

If the investment philosophy and the unusual assortment of institutional investors to run a \$2 billion fund seem unusual, it's with good reason.

The money they're investing belongs to the Permanent School Fund of the State of Texas, and they're investing for the benefit, not only of Texas school children who are living today, but for those yet unborn who might not be born for another 50 or 100 years or more.

Naturally, that extensive fiduciary responsibility carries with it a special implied obligation for fairness, caution, wisdom, and virtually everything else short of omniscience. Presumably, such attributes are just as likely to be found among a surgeon, a newspaper publisher, a banker and so forth, as they are among sophisticated Wall Street money managers.

But the six people who constitute the board investment committee (a committee appointed from within the 24-member State Board of Education) would probably be the first to admit that they aren't capable of wisely

managing the investment of \$1 million a day without quite a bit of professional advice.

That professional advice comes from several sources — for one thing, from its investment counsel, First International Investment Management Inc., a subsidiary of First International Bancshares Inc. (NYSE), Dallas.

It also comes from its own investment staff, headed by Hooks as investment officer, and from the Investment Advisory Committee, a group of Texas financial experts and economists.

In a sense, the committee also gets quite a bit of help in the form of the swollen daily cash flow that inflation has spawned in the form of soaring worldwide oil and gas prices in recent years. The Permanent School Fund, which owns vast acreage in West Texas and which gets all bonuses and royalties from the Texas offshore waters and tidelands, last year alone enjoyed almost \$200 million in oil and gas royalties.

On a direct basis, today's Texas school children get none of that to help offset the pernicious effects of inflation on school construction and equipment programs. The royalties are regarded as principal, and none of the

principal in that perpetual state trust can be touched by anyone, other than to be reinvested.

Indirectly, however, as the upward spiraling royalties are plowed into stocks and bonds, they create a bigger base for dividends and interest — and those, being income, go directly to the school districts across Texas to help meet their costs.

In fiscal 1979, the income amounted to \$50.75 for every school child in Texas. Hooks notes that in 1961 each Texas school child got only \$7.27 from the fund's income.

And even as recently as 1970, the fund was generating income of only about \$35 million a year. It's now up to about \$130 million a year.

"It has continued to increase due to the new money being invested and also due to increases in dividends," Hooks said. "Last month, we picked up an extra \$1 million on an annual basis just in dividend increases on our stock portfolio."

The pressing need of school districts for current income to help ward off inflation could obviously be better met by selling off big chunks of the fund's portfolio of stocks and reinvesting the money in fixed-income securities which

are today yielding 10% or more.

But Hooks notes that this might penalize school children of the future, including those yet unborn.

"It's very easy to demonstrate that in the long run the stocks that we are buying now are probably going to be out-yielding bonds," Hooks said.

The fund's overall portfolio of securities is currently divided into about 60% bonds and 40% equities, with the emphasis over the past several years having shifted gradually to increase the percentage in equities, particularly stocks with strong 10-year compounded growth rates in earnings and dividends.

Hooks, who would personally like to see about a 50-50 split eventually between bonds and stocks, declares that the board's investment committee is "very concerned about what inflation does to the corpus (principal) of the fund."

"It's interesting to note that even last year, with the influx of \$250 million in new money, our principal really just broke even in terms of preservation, because inflation is eating away at \$2 billion at the rate of 10% to 12%," he said.

The fund, created by Texas' Fifth Legislature in 1854 with an appropriation of \$2 million

plus some millions of acres of arid West Texas land which were virtually worthless at the time, wasn't allowed for more than a century to invest in anything except government bonds and municipal issues, mostly school district bonds.

In 1961 the fund managers were authorized to invest also in corporate securities, and since then the fund's growth has sprinted, with principal growing by 354% and income increasing 849% through fiscal 1979.

The overall rate of return on the fund since 1961 has increased from 3.38% to 6.83%.

What's keeping that percentage so low relative to today's high-yielding securities is mainly a massive carryover of low-coupon government bonds bought many years ago. For instance, the fund holds \$158 million of government bonds bearing interest of 3.99% a year. Another \$34 million is in 4.99% government bonds. About \$7.5 million in government bonds bear 2.99% coupons.

Fortunately, the fund in 1980 will roll-over some \$43 million in government obligations which are maturing — fortunately, that is, if today's high-yielding government issues don't vanish by the time the roll-overs take place at Dec. 31, 1980. Inflation being what it is, there isn't much likelihood of rates dropping back below 5% anytime in the foreseeable future.

Another \$21 million of government obligations will mature at the end of 1983, with a block of \$42 million scheduled to mature at the end of 1990.

Meanwhile, of course, the big cash flow from oil and gas royalties and bonuses from tidelands and offshore lease sales is helping to create the additional dividends and interest which will tend to increase the fund's overall rate of return.

Hooks points out that, again in keeping with the protection of the interests of school children of the future, the fund is currently buying stocks with future potential even though they may be yielding only about 4 1/2% to 5% at present.

"With the market at its current stage," he said, "you're not paying much of a premium for potential growth."

The stocks chosen must meet carefully designed criteria, and that's where, in part, you'll find

(Continued on next page)

## Fund

(Continued from preceding page)

an explanation for Hooks' statement that the investment committee leans toward hindsight rather than foresight in picking equities.

A key figure in the computer readouts on the fund's common stock portfolio is the "10-year compounded growth rate" listed for earnings and dividends.

"We're most concerned with this area, because to keep up with inflation, we feel that we need at least an overall portfolio growth rate of dividends around 8%," Hooks said.

And, in this respect, Hooks indicated, "we think that we can rely more on the history of what a stock has done than what people think it can do."

"How do you turn around a company that has had a 3% growth into one that has a 7% to 8% growth rate?" he asked rhetorically. "It is very, very difficult, and it is rare that it happens. This is history (the company's past performance).

This is what it actually has done."

Future growth of the fund could be gently gored at times on the horns of the dilemma of trying to provide income for today, and growth for tomorrow, but that appears to be somewhat the nature of the beast.

Quite obviously, when one is looking back at a 10-year record of earnings and dividends growth, he is going to miss out on shares of a budding Xerox or IBM which hasn't yet begun to feel its oats.

And, on the other hand, if he opts for the budding Xerox or IBM which hasn't yet demonstrated that it can consistently produce good earnings and dividends, he would be gambling at the expense of current income that is so critically needed by Texas school districts today.

As a matter of fact, the stress on current income with future potential for steady, if not spectacular, growth in earnings and dividends, is constantly monitored by the investment committee.

"We rate every stock that we have according to earnings and dividends, and if we see a stock (in the portfolio) that has not given us a good growth in earnings and dividends for the past few years, this is a kind of a flag to us that we want to take a good, hard look at it and justify whether we should hold it or sell it," Hooks says.

The fund's holdings of insurance stocks have proven over the past 10 years to be the best performers in the portfolio insofar as growth in earnings and dividends is concerned.

Capital Holding (NYSE), an insurance holding company, is the superstar of the insurance and finance group in the fund's portfolio, showing a 13% compounded growth in earnings and 25% growth in dividends on a 10-year basis.

Liberty National Life (OTC) is another of the solid performers in the group, with a 13% compounded growth in earnings and an 18% compounded growth in dividends for the 10-year period.

Southwestern Life (OTC) and

American General (NYSE) are two other stellar performers in the group. Southwestern Life, which recently agreed to be acquired by Tenneco, has a compounded 13% growth in earnings and 15% growth in dividends for the 10-year period, while American General in the same period showed a 15% compounded growth in earnings and 9% growth in dividends.

"Stocks that are highly cyclical in their nature — such as steel, papers, and metals — have had very poor rates of growth in terms of earnings and dividends," Hooks said.

"So right now," he added, "we are looking at whether we should de-emphasize all cyclical areas, because they don't meet our goals."

About two years ago the fund had an overall growth rate in dividends of just above 5%, "and we are now trying to raise that to around 8%," Hooks said.

"We feel that the fundamental long-term pattern of inflation is going to be at least 7% to 8%," he said. "So if we can match or exceed that, that's the whole purpose of this portfolio. Not

capital gains, but putting more and more money into the Available School Fund. And, of course, we feel that if we're successful in structuring this portfolio to get the earnings growth and the dividend growth, the gains will follow — they must eventually."

One of the most crucial statistics that the investment committee watches on the portfolio's computer readouts is what the yield is compared with the book value (cost) of the securities in the portfolio.

"If we can keep that going up, then that's what this fund is all about — at least on the equity side," Hooks said.

One of the nicest yields compared with cost that the fund has in its portfolio is Continental Corp. (NYSE), an insurance holding company, with a yield of 15.16% compared with cost. The company also, over a 10-year basis, has a compounded growth of 21% in earnings and a 9% growth in dividends.

Three oil stocks in the portfolio — Exxon, Mobil and Standard of California — also have high yields relative to their cost. Exxon's is 11.51%; Mobil's, 10.44%; and Standard of California's, 10.15%.

One of the cyclical stocks, incidentally — Carpenter Technology, a company which produces stainless, high-alloy steels — tops the entire portfolio with a yield relative to cost of 16.83%. Its 10-year compounded growth rate in earnings, however, is only 7%, and in dividends, 4%.

Although all capital gains are welcome, since they are regarded as part of the fund's capital and are channeled back into new investments to increase current income, the investment committee doesn't frown on equities lagging in this respect.

United Technologies (NYSE), for instance, is currently showing a small paper loss, with a cost of \$15.6 million, or \$38.98 a share for the 401,100 shares in the portfolio, vs. a recent market value of \$15.2 million, or \$37.875 a share.

But it has a good 10-year compounded growth rate, with earnings up 8% and dividends 9% — "and that's what we're looking for," Hooks said.

Overall, the fund's common stock portfolio in mid-November of this year showed a 6.42 yield compared with cost, and a market value of \$925.7 million vs. book value (cost) of \$846.5 million, or an appreciation of \$79.2 million, or 9.4%.

As might be expected, the biggest appreciation among industry groups in the fund's equities portfolio was recorded by the oils, up 71.83%, closely followed by the transportation

(Continued on next page)

## If You're Not the Bluest Chip, Don't Bother to Call

There isn't any point in trying to peddle "hot new issues" to the six-member investment committee of the State Board of Education who manage the \$2 billion Permanent School Fund.

"We really buy the industry leaders exclusively," says Jim M. Hooks Jr., investment officer for the fund. "We do not buy the smaller capitalized companies. We do not buy the tiny little growth-type companies. We buy the large, established-leadership-type companies."

The issues that are bought don't have to be stocks that are listed on one of the major exchanges. As a matter of fact, some of the stocks which the committee prizes highly, are traded over-the-counter.

"There are a lot of listed stocks not as good as a lot of over-the-counter stocks, for sure," says Hooks.

Hooks, a native of Dallas who grew up at Abilene, Texas, graduated from Texas Tech in 1961 with a business degree and subsequently graduated from the University of Texas Law School in 1964. He is a member of the Texas state bar.

A special agent for the FBI from 1964 to 1967 in Seattle and Salt Lake City, he then turned to the securities business, becoming a stockbroker at Austin for Rauscher Pierce until 1975, when he joined the Permanent School Fund as assistant investment officer.

"I wanted to stay in Austin and wanted to stay in the investment area, but I wanted to get out of commission sales," he says.

There were only two investment staff members for the fund when Hooks joined — himself and Melvin Olle, who was then investment officer. Olle bought the bonds for the fund, and Hooks bought the stocks.

"To handle that much money — just two people — is kind of amazing," Hooks chuckles.

The fund at that time consisted of about \$1 billion. Today, five years later, it's at \$2 billion, thanks largely to the oil and gas boom that brings millions of dollars in royalties and lease bonus money into the fund's coffers each month.

Hooks moved up to investment officer when Olle retired late last summer and Walter J. Arellano became the assistant investment officer. There are also now three additional staff members — Steve Sample, bond analyst; John Wright, bond trader, and Adnan Gentry, stock trader.

The investment staff works in Austin under the supervision of Raymond L. Bynum, deputy commissioner

for program administration and finance in the Texas Education Agency, and at the apex of the agency is Alton O. Bowen, commissioner of education and executive officer of the State Board of Education.

It's the 24-member board of education (chosen from each congressional district) which has responsibility for managing the Permanent School Fund, but, as a practical matter, it does this via a six-member Investment Committee it names from among its members.

The board investment committee is headed by Jimmy L. Elrod of San Antonio as chairman. He is in the real estate business. Other members of the committee are W. H. Fetter of La Marque, an oilman; Joseph C. Gathe, M.D., a Houston surgeon; Jun Hollingsworth, a newspaper publisher at De Soto; Paul Mathews, former board chairman of the First Greenville National Bank; and James H. Whiteside, a Lubbock businessman.

In addition to the investment counseling that the board investment committee gets from Hooks and the investment staff, it also each month receives counseling, plus a list of recommended securities, from its investment counsel, First International Investment Management Inc.

The board investment committee also gets some broader overviews on finance and economics from a 5-member investment advisory committee. Members of this committee are T. L. Austin Jr., chairman and chief executive officer of Texas Utilities Co.; O. V. Cecil, a retired Merrill Lynch Pierce, Fenner & Smith executive; C. Marks Hinton, former president of Barber Oil Corp.; W. Ray Montgomery, former chief financial officer for Southland Life Insurance Co.; and Dr. Arthur A. Smith, former economist of the First National Bank in Dallas.

All of the investment advisory committee members except Hinton are from Dallas. Hinton lives in Houston.

Hooks estimates that the fund, at present, is growing at the rate of about \$1 billion every four years.

"Our growth is directly related to the price of oil and gas," he noted. "Whatever it does is what we'll do. I think we'll be at \$3 billion in 3½ to 4 years from now. After then, it's strictly speculation on what the price of oil and gas does, how many new fields they hit offshore and onshore — too many variables for us to know. But I think that we can look forward to a very large cash flow for quite some time."

—SAM WEINER

# Fund

(Continued from preceding page)  
group, up 71.23%.

Oil stocks in the portfolio have appreciated to a total market value of \$205.8 million from a cost of \$119.8 million, for a gain of \$86 million, or 71.83%.

Among the big gainers were Atlantic Richfield, Conoco,

Exxon, Gulf Oil, Marathon, Phillips Petroleum, Mobil, Standard of California, Standard of Indiana, and Standard of Ohio.

The transportation group showed a paper gain of \$16.2 million, or 71.23%, from a cost of \$22.7 million to a mid-November market value of \$38.9 million. The gains were registered by Santa Fe and

Union Pacific, with paper losses being shown by the other two stocks in the group - Norfolk Western Railway and Southern Railway.

Union Pacific, in particular, showed a strong gain, to a \$70.50 per share recent market value from the \$26.33 a share the fund paid for the 284,600 shares it holds. That's a gain of 168%.

The biggest paper losses among the industry groups were auto tires, down 40.11%; steels, down 14.13%; utilities, down 11.93%; auto manufacturers, down 13.77%; retail trade, down 23.01%, and miscellaneous stocks, down 23.36%.

Hooks observes that although the investment committee is glad to see capital gains, "they tend to be sort of immaterial.

"If we can't get dividend growth out of a company," he said, "we may as well buy bonds.

"And, of course, this is not a trading account," Hooks added. "We try to buy issues that we feel are going to be good for a very, very long time, and we don't worry about short-term fluctuations in the market."

## How School Fund's Stock Portfolio Has Fared

No. Shares	Cost	Recent Value	Change	No. Shares	Cost	Recent Value	Change		
<b>AUTOMOTIVE</b>				<b>OILS</b>					
176,975	Ford Motor	\$ 7,282,000	\$ 8,348,000	-13%	448,000	Atlantic Richfield	\$ 20,325,000	\$ 35,166,000	+73%
161,680	General Motors	10,252,000	8,771,000	-14%	232,200	Conoco Inc.	5,221,000	10,768,000	+106%
<b>BANKS</b>				<b>PAPER PRODUCTS</b>					
238,000	Bank America Corp.	4,491,000	5,994,000	+33%	264,700	Crown Zellerbach	9,090,000	9,826,000	+ 8%
216,800	Chase Manhattan	8,157,000	7,903,000	- 3%	344,000	International Paper	14,138,000	12,943,000	- 8%
169,600	Chemical New York Corp.	9,286,000	6,080,000	-36%	114,400	Kimberly-Clark Corp.	3,809,000	4,733,000	+31%
257,900	First Chicago Corp.	5,222,000	3,965,000	-24%	205,000	Scott Paper Co.	5,393,000	3,587,000	-33%
223,707	Security Pacific Corp.	5,649,000	6,599,000	+17%	203,600	St. Regis Paper Co.	8,243,000	6,621,000	-10%
361,650	Western Bancorporation	6,395,000	10,694,000	+70%	<b>PUBLIC UTILITIES</b>				
<b>BUILDING</b>				<b>DRUGS</b>					
416,700	Johns-Manville Corp.	13,608,000	10,052,000	-23%	59,000	Abbott Laboratories	2,212,000	2,327,000	+ 5%
235,000	NL Industries	4,914,000	7,314,000	+49%	625,000	American Home Products	16,956,000	17,860,000	+ 4%
195,900	PPG Industries	4,172,000	5,828,000	+40%	601,300	Pfizer Inc.	18,042,000	23,450,000	+30%
<b>CHEMICALS</b>				<b>ELECTRICAL</b>					
43,090	Allied Chemical	2,050,000	1,982,000	- 4%	181,000	General Electric	7,476,000	8,426,000	+13%
149,900	American Cyanamid	5,338,482	4,516,000	-16%	79,700	McGraw-Edison	2,052,000	2,072,000	+ 1%
162,000	Dow Chemical	2,873,000	4,587,000	+60%	169,400	RCA Corp.	5,682,000	3,769,000	-34%
214,500	E.I. duPont de Nemours	8,592,000	8,714,000	- 9%	103,685	Sunbeam Corp.	2,331,000	1,827,000	-22%
189,000	Eastman Kodak	10,483,000	9,422,000	-10%	312,900	Westinghouse Electric	5,789,000	5,583,000	- 3%
120,000	Hercules Inc.	2,310,000	2,280,000	- 1%	<b>FOOD &amp; HOUSEHOLD</b>				
178,800	Union Carbide	9,272,000	7,062,000	-24%	524,500	Borden Inc.	13,856,000	13,178,000	- 6%
<b>DRUGS</b>				<b>INSURANCE &amp; FINANCE</b>					
59,000	Abbott Laboratories	2,212,000	2,327,000	+ 5%	87,500	American General Insurance	1,641,000	3,510,000	+114%
625,000	American Home Products	16,956,000	17,860,000	+ 4%	591,000	Capital Holding Corp.	13,218,000	12,347,000	- 7%
601,300	Pfizer Inc.	18,042,000	23,450,000	+30%	158,950	Continental Corp.	2,096,000	4,112,000	+96%
49,400	Richardson-Merrell	1,095,000	1,160,000	+ 6%	217,000	Liberty National Life	5,218,000	4,973,000	- 5%
442,000	Upjohn Co.	16,187,000	20,332,000	+26%	270,000	Southwestern Life	5,317,000	10,168,000	+91%
<b>ELECTRICAL</b>				<b>RETAIL TRADE</b>					
181,000	General Electric	7,476,000	8,426,000	+13%	231,200	Allied Stores	6,230,000	5,577,000	+ 7%
79,700	McGraw-Edison	2,052,000	2,072,000	+ 1%	271,400	Associated Dry Goods	8,778,000	4,579,000	-48%
169,400	RCA Corp.	5,682,000	3,769,000	-34%	286,900	Federated Dept. Stores	10,410,000	7,540,000	-28%
103,685	Sunbeam Corp.	2,331,000	1,827,000	-22%	388,400	Safeway Stores	16,640,000	14,079,000	-15%
312,900	Westinghouse Electric	5,789,000	5,583,000	- 3%	131,600	Sears, Roebuck & Co.	3,312,000	2,385,000	-28%
<b>FOOD &amp; HOUSEHOLD</b>				<b>STEEL &amp; IRON</b>					
524,500	Borden Inc.	13,856,000	13,178,000	- 6%	160,700	Bethlehem Steel Corp.	5,241,000	3,264,000	-38%
153,400	CPC International	5,059,000	8,398,000	+39%	123,200	Carpenter Technology	1,391,000	3,665,000	+163%
204,000	General Foods	5,219,000	6,804,000	+ 6%	39,500	Inland Steel Co.	1,453,000	1,194,000	-18%
44,000	H.J. Heinz Co.	1,240,000	1,653,000	+33%	95,100	National Steel Corp.	4,477,000	2,674,000	-40%
323,800	Kraft Inc.	14,472,000	14,490,000	- -	<b>TIRES</b>				
142,000	Proctor & Gamble	11,419,000	10,398,000	- 9%	336,044	Firestone Tire & Rubber	6,242,000	2,962,000	-52%
861,000	Ralston Purina	10,028,000	9,266,000	- 8%	392,900	Goodyear Tire & Rubber	7,183,000	5,068,000	-30%
<b>INSURANCE &amp; FINANCE</b>				<b>TRANSPORTATION</b>					
87,500	American General Insurance	1,641,000	3,510,000	+114%	76,200	Norfolk & Western Railway	2,457,000	1,804,000	-27%
591,000	Capital Holding Corp.	13,218,000	12,347,000	- 7%	268,300	Santa Fe Industries	9,934,000	14,364,000	+44%
158,950	Continental Corp.	2,096,000	4,112,000	+96%	48,200	Southern Railway	2,806,000	2,632,000	- 6%
217,000	Liberty National Life	5,218,000	4,973,000	- 5%	284,600	Union Pacific Corp.	7,493,000	20,064,000	+168%
270,000	Southwestern Life	5,317,000	10,168,000	+91%	<b>MISCELLANEOUS</b>				
155,000	C.I.T. Financial	6,295,000	8,835,000	+40%	294,000	Avon Products	14,214,000	5,597,000	-61%
504,400	Household Finance	10,449,000	9,018,000	-14%	466,000	Coca-Cola Co.	19,406,000	15,474,000	-20%
<b>MACHINERY</b>				<b>OFFICE EQUIPMENT</b>					
397,000	Caterpillar Tractor	18,345,000	20,560,000	+26%	331,000	Int'l Business Machines	20,797,000	20,686,000	- 1%
89,000	Clark Equipment	2,293,000	3,370,000	+47%					
599,000	Deer & Co.	14,954,000	23,081,000	+54%					
199,000	Ingersoll-Rand Co.	10,188,000	10,027,000	- 2%					
<b>METALS</b>									
417,350	Aluminum Co. of America	18,286,000	21,483,000	+18%					
196,900	Kennecott Copper Corp.	7,262,000	4,848,000	-33%					

