Minnesota
State Legislature

LEGISLATIVE AUDIT COMMISSION

Program Evaluation Division

UNEMPLOYMENT COMPENSATION

FEBRUARY 24, 1978

STATE OF MINNESOTA
LEGISLATIVE AUDIT COMMISSION
VETERANS SERVICE BUILDING
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Minnesota State Legislature

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FOREWORD

The Program Evaluation Division of the Legislative Audit Commission was established by Chapter 204, Section 91 of the Laws of Minnesota for 1975. The Division is authorized to "determine the degree to which activities and programs entered into or funded by the state are accomplishing their goals and objectives, including an evaluation of goals and objectives, measurement of program results and effectiveness, alternative means of achieving the same results, and efficiency in the allocation of resources". This evaluation, *Unemployment Compensation,* is the fourth study undertaken by this Division.

For each report, a uniform review procedure is followed. After a preliminary draft is completed, it is submitted to all agencies directly involved in the evaluation for their verbal and written comments. A written reply by the Minnesota Department of Economic Security is included in the Appendix. In addition, the report is reviewed by a subcommittee of the Legislative Audit Commission prior to its release. We are most grateful for this subcommittee's advice and direction and for Representative Fred C. Norton's able and helpful chairmanship.

During most of the evaluation process, the Minnesota Department of Employment Services administered Minnesota's unemployment compensation system. The Minnesota Department of Economic Security, created by Chapter 430, Section 1 of the Laws of Minnesota for 1977, assumed all powers, duties, and functions of the Department of Employment Services on December 1, 1977.

We thank Michael C. O'Donnell, Commissioner of Economic Security, and Emmet J. Cushing, former Commissioner of Employment Services, and their staffs for their valuable time and assistance on this project. We also thank staff persons from the House Research Department and Senate Investigative Research for their valuable comments and suggestions on the draft report.

John H. Yunker was project director and author of this report. Scheffel Wright reviewed various drafts and made suggestions on the conduct of the research.

February 24, 1978

Bruce Spitz,
Deputy Legislative Auditor
for Program Evaluation

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SUMMARY OF FINDINGS
AND RECOMMENDATIONS

This evaluation has focused on three basic issues:

(1) The accuracy of the unemployment compensation fund forecasts made by the Research and Planning Branch (R&P) of the Minnesota Department of Employment Services (MDES).

(2) The adequacy of current unemployment compensation laws in avoiding future deficits in the state unemployment compensation fund.

(3) The costs and benefits of incurring such deficits.

Findings and recommendations relating to these three issues are summarized below.

UNEMPLOYMENT FUND FORECASTS

The Research Question: How accurate and reliable are MDES's unemployment compensation fund forecasts?

MDES FORECASTS

We first examined MDES's November 18, 1976 forecast of future fund balances, which assumed that the MDES Advisory Council's recommendations would be adopted into law in the 1977 Legislative Session. This forecast contains two projections: one with very optimistic future unemployment rates (suggested for MDES's use by the United States Department of Labor) and the other with somewhat pessimistic future unemployment rates. The average United States unemployment rate for the optimistic projection is 5.7 percent over the next eight years. For the pessimistic projection, the average rate is 7.0 percent.

Subsequent to our evaluation of the November 1976 forecast, R&P issued on August 12, 1977, a forecast of future fund balances under current law, as amended during the 1977 Legislative Session. The August forecast, like the one from the previous November, contains two projections — an optimistic and a pessimistic unemployment rate pattern over the next eight years. The average U.S. unemployment rate for the optimistic projection is 5.6 percent over these eight years. The pessimistic projection has an average rate of 8.0 percent. The optimistic projection shows the Minnesota fund out of debt near the end of 1979. However, the pessimistic one shows the fund's deficit continuing to grow in size through 1984.

FINDINGS:

⊚ Judging the accuracy of R&P's calculations in the November 1976 forecast was made difficult because of incomplete documentation of the assumptions and supporting data which were used.

⊚ By reconstructing the forecasting procedures and developing a computer program to make the calculations, we found the November forecast to contain several calculation errors. The fund surplus was underestimated by as much as $54 million in the optimistic unemployment projection. The deficit was overestimated by as much as $96 million in the pessimistic one. These errors were probably due to the short time period given to R&P to prepare this forecast.

⊚ In contrast to the previous forecast, the August 1977 forecast was well documented and free of calculation errors.

- Unemployment rates are likely to follow a pattern somewhere between the two extremes represented by R&P's optimistic and pessimistic projections in both forecasts. It is the professional judgment of the Program Evaluation Division's staff economists that the average U.S. unemployment rate over the next eight years is likely to be between 6.0 and 7.0 percent. An average of 6.5 percent would be a reasonable estimate.

RECOMMENDATIONS:

- The computer models we have developed could be useful to R&P in making fund forecasts under various economic assumptions and some alternative state benefit and tax laws. MDES should allocate to R&P the very limited funds necessary to acquire a computer terminal and computing time for forecasting purposes. We estimate these costs to be no greater than $3700 in the first year and $1400 in each succeeding year, at current prices.

- Research and Planning should examine the consequences of a number of unemployment rate assumptions. Unemployment rate patterns with an average rate between 6.0 and 7.0 percent would, in our opinion, be more realistic.

ALTERNATIVE FORECASTS FOR CURRENT LAW

We have examined six alternative unemployment rate assumptions and their implications for the unemployment compensation fund. These alternative forecasts each have an average United States unemployment rate of between 6.0 and 7.0 percent over the next eight years. Four of the six forecasts assume that the economy will experience a significant recovery with the unemployment rate falling to a low ranging from 5.0 to 5.8 percent sometime between 1980 and 1982. The other two forecasts assume the unemployment rate will stay just below the current 7.0 percent rate, on average.

FINDINGS:

- For the four more optimistic forecasts, the fund would first be out of debt somewhere between the end of 1979 and the end of 1981. If the current law is unchanged, the fund would, however, go back in debt somewhere between the end of 1982 and the end of 1984.

- For the two more pessimistic forecasts, the fund would not have a surplus until the mid 1980's. The surplus would last for less than one year, given current law. The fund would then go back in debt.

- For all forecasts, future changes in state law appear necessary to avoid debt in the 1980's. If, for example, the current law were changed, effective in 1980, to index the tax base by setting it equal to 70 percent (or more) of the second previous year's statewide average annual wage, potentially large deficits in the 1980's might be avoided.

METHODS OF AVOIDING DEBT

The Research Question: What future changes in the unemployment compensation laws, if any, will be needed if the State of Minnesota desires to avoid deficits in the unemployment compensation fund a large percentage of the time?

R&P has calculated the unemployment compensation fund would need to be at least 2.5 percent of total wages in normal times in order to avoid most deficits and the resultant need for debt financing.

The fund has not been this large since 1958. In thirteen of the last eighteen years, this percentage was 1.25 percent or less. In eight of these years, the percentage was less than 1.0 percent.

The size of the fund in the past has been due in part to inflation. Unemployment compensation benefit payments made by the fund tend to increase almost as fast as the wage inflation rate. Tax revenues, however, increase much slower in response to inflation, as long as the tax base and the schedule of minimum tax rates are unchanged.

In order for tax revenues to keep pace with benefit payments, frequent and sometimes extensive changes in the tax base and the minimum tax rate schedule are necessary. Through 1977, the minimum tax rate schedule has been revised six times in the last twelve years. By 1979, the tax base will have been increased five times in fourteen years. As frequent as law changes have been in the past, they have not been frequent or extensive enough to build up a surplus large enough to avoid debt.

FINDINGS:

- One of our computer studies indicates that if the Legislature wants to maintain a solvent fund for a large percentage of the time, the minimum tax rate schedule will have to be adjusted and the tax base increased as often as once every year or two.

- State law could be changed to make these adjustments each year automatically without the need for annual or biennial legislation. For example, the tax base could be "indexed" by setting it equal, in a given year, to a fixed percentage of the average annual wage from the second previous year. Use of a "fund ratio" schedule of minimum tax rates would eliminate the need for altering the current schedule every time significant inflation (or deflation) occurs.

- The use of minimum and maximum tax rates causes employers with relatively low unemployment experience to pay back a larger percentage of the benefits received by their employees than employers with high unemployment experience.

- The decision on how the tax burden should be distributed is a legislative one. Tax base indexing is a means of maintaining over time the Legislature's intended tax burden distribution.

COSTS AND BENEFITS OF DEBT

The Research Question: Given the current federal laws providing interest-free loans to state unemployment funds, should Minnesota pass laws designed to diminish greatly the chance of running a deficit?

Title XII of the Social Security Act permits a state to borrow funds interest-free from the Federal Unemployment Account (FUA) to meet a projected deficit in the state's unemployment fund. As of June 15, 1977, twenty-one states, the District of Columbia, and Puerto Rico had outstanding debts to the FUA. The total value of outstanding loans was about $4.6 billion. Minnesota first borrowed from the FUA in July 1975. Currently, the state fund owes $172 million.

If a state has an outstanding loan on January 1st of two consecutive years and has not fully repaid the loan by November 10th of that second year, an additional 0.3 percent federal tax (FUTA tax) is levied on that state's employers in the second year. If the loan is still not repaid by November 10th of following years, then this additional tax rate is increased each such year until the loan is repaid. All of this additional tax is used to repay the loan. The federal government, in effect, collects the taxes necessary to repay the state's loan over several years.

Under Title XII, the additional FUTA tax would first be levied in Minnesota in 1977, payable in January, 1978. Congressional action over the past two years has delayed this starting date for repayment. The Emergency Compensation and Special Unemployment Assistance Extension Act of 1975 established conditions under which Minnesota may be able to delay starting repayment of its loan until January 1980. The Emergency Unemployment Compensation Extension Act of 1977 permits a delay in starting repayment until January 1982 under the same conditions.

FINDINGS:

- ◉ We find current Minnesota law sufficient to meet all these conditions for delay of loan repayment for all four years (1977-1980) under a wide range of unemployment rate assumptions. One of the requirements is, however, barely met under some of the more pessimistic unemployment rate assumptions and should be watched closely by Research and Planning.

- ◉ Provided there is no change in these conditions by the Secretary of Labor, Minnesota's employers would first be subject to the additional FUTA taxes in 1981, payable in January 1982. If the debt is entirely repaid by November 10, 1981, then no additional FUTA tax will be needed in 1981.

LOWER TAXES RESULTING FROM GREATER BORROWING

FINDINGS:

- ◉ By going into debt, a state can pay benefits today and collect the necessary taxes two or more years later. Interest-free loans from the FUA can be used to pay benefits when the state fund is not able to pay them. In an inflationary economy, the total unemployment taxes (in constant dollars) on a state's employers can be reduced by greater and more frequent borrowing from the FUA. The greater the use of debt by the Minnesota fund the lower the overall real tax burden (including FUTA taxes) on Minnesota employers.

- ◉ One of our computer studies shows that if the fund were in debt 52.5 percent of the time, an increase in employer taxes of $20 million per year (in 1977 dollars) would be needed to reduce the percentage of time in debt to 7.5 percent. Greater reductions in the percentage of time in debt would cost even more in terms of additional taxes.

- ◉ Automatic adjustments of both the tax base and the minimum tax rate schedule are necessary to maintain fund solvency and minimize the need for borrowing. Under the present federal laws and regulations, there exist few financial incentives to avoid debt so completely. Adopting these automatic provisions would reduce the percentage of time the fund is in debt while significantly increasing total state and federal taxes on Minnesota employers.

- ◉ However, if an appropriately high interest rate or penalty (5 percent or more) were charged on funds borrowed from the FUA, then Minnesota employers would pay lower taxes if the state fund avoids, rather than incurs, debt.

POTENTIAL COST TO BORROWING

FINDINGS:

- Greater reliance on federal loans does increase the risk of being caught deep in debt at the time (if any) the federal government does decide to charge interest on loans. Even if states were given several years to adjust before interest and penalties would first be charged, it would be difficult to restore solvency to the fund in such a short time. The need for rapidly increasing taxes would have undesirable effects on the state's economy.

- As long as a number of other states are also in debt, as is currently the case, this risk may be quite small. If only Minnesota and a few other states were in debt at any one time, the chance of federal law changing would possibly be quite high.

ALTERNATIVE MEANS OF FINANCING UNEMPLOYMENT COMPENSATION BENEFITS

We summarize below the advantages and disadvantages of three alternative means of funding unemployment compensation benefit payments. The basic differences among these policy alternatives lie in the frequency with which the tax base and minimum tax rate schedule are adjusted. The more frequent the adjustments, the more solvent the fund will be. Automatic adjustments of the tax base and minimum tax rate schedule are the equivalent of very frequent adjustments.

ALTERNATIVE 1: LITTLE OR NO BORROWING

This alternative involves almost complete financing through state unemployment taxes with little or no borrowing from the federal government. In order to avoid debt almost entirely, the state unemployment compensation fund would have to be equal to or greater than 2.5 percent of the total wages earned in covered employment. Today, an adequate fund would be approximately $320 million by this standard. To maintain such a surplus, automatic adjustments of both the tax base and the minimum tax rate schedule would need to be enacted into law. The tax base would have to be indexed to the average annual wage. A "fund ratio" schedule of minimum tax rates would have to be adopted.

The major disadvantage of this policy alternative is the considerably higher combined state and federal taxes on Minnesota employers relative to other alternatives. Taxes would be about $8 million per year higher than under Alternative 2 and at least $20 million per year higher than under Alternative 3. The advantage of this policy is that it reduces considerably the risk of being in debt should the federal government decide in the future to charge interest on loans from the FUA.

ALTERNATIVE 2: MODERATE BORROWING

This alternative would supplement state tax financing with loans from the federal government. The state laws would be adjusted to leave the fund in debt from 20 to 30 percent of the time. Unemployment compensation tax laws would be modified whenever a deficit becomes or is forecast to become large. More than any of the other alternatives, Alternative 2 requires considerable reliance on fund forecasting for determining when a law change is necessary. The recommendations concerning MDES's fund forecasts become particularly important, if Alternative 2 is adopted.

A possible means of implementing Alternative 2 is by indexing the tax base, while changing the minimum tax rate schedule only when a large deficit is forecast. Specifically, the tax base could be indexed starting in 1980. Changes in the current minimum tax rate schedule should be made if, at any time, MDES forecasts a "large" fund deficit for sometime over the five succeeding years. A "large" deficit could be defined as one greater than one percent of the total wages earned in insured employment.

ALTERNATIVE 3: CONSIDERABLE BORROWING

Alternative 3 involves financing the unemployment compensation system partially through state taxes and partially through interest-free federal loans later resulting in additional federal taxes to repay the loans. This policy could be implemented by maintaining the current minimum tax rate schedule and by either raising the tax base occasionally or indexing the tax base. The state fund would be in debt at least fifty percent of the time. Large deficits would occur at times.

This alternative has the major advantage of low overall unemployment compensation taxes on employers. The disadvantage is that the risk of being deep in debt if and when the federal government begins to charge interest on loans is high.

CONCLUSION

One objective in financing the unemployment compensation system is to keep the taxes on Minnesota employers as low as possible to pay a given level of benefits. Borrowing interest-free funds from the FUA is a means of reducing these taxes. A second objective is to reduce the risk of being deep in debt should the federal government decide in the future to charge interest on loans from the FUA. Less borrowing with greater resultant taxation is a means of meeting this objective. Obviously, these objectives conflict.

If the Legislature wishes to avoid any borrowing of federal funds, then Alternative 1 should be selected. Under current federal laws permitting interest-free loans, Alternative 1 would, however, result in greater taxation of Minnesota employers than any of the other alternatives. Although Alternative 3 would result in the lowest taxation, it results in the greatest risk of being deep in debt should the federal government decide to charge interest on loans. Alternative 2 involves a moderate degree of borrowing, resulting in greater taxation than Alternative 3 but significantly less than Alternative 1. Given current federal law, Alternative 2 could be an appropriate compromise among these alternative means of funding the unemployment compensation system.

The above observations are valid given that FUA loans are currently interest-free. With interest-free loans, Minnesota employers pay lower total taxes if the state fund goes into debt and borrows federal money. However, once the federal government decides to charge an interest rate of about five percent or more (if it ever does), this conclusion would change. With an appropriately high interest rate on FUA loans, Minnesota employers would pay lower total taxes if the state fund avoids debt and the resulting interest charges. Thus, at the time (if ever) that interest begins to be charged on outstanding loans, Alternative 1 would become the appropriate means of funding the unemployment compensation system because it avoids most debt.

INTRODUCTION

The Legislative Audit Commission directed the Program Evaluation Division of the Legislative Auditor's Office to conduct an evaluation of the Minnesota unemployment compensation system.[1] Our attention has focused on three fundamental areas of concern to the Legislature. These areas are:

1. The accuracy and usefulness of the unemployment compensation fund forecasts supporting the policy recommendations of the Advisory Council of the Minnesota Department of Employment Services (MDES).

2. The adequacy of current unemployment compensation laws in avoiding future fund deficits.

3. The advantages and disadvantages of borrowing from the Federal Unemployment Account (FUA) to finance such deficits.

Data used in this study came from a number of different sources including: interviews with MDES administrators and staff, particularly in the Research and Planning Branch (R&P); systematic review of R&P files on unemployment compensation data and forecasting procedures; legal review of the existing and past state unemployment compensation laws and of existing, past, and proposed federal laws; and reviews of the relevant unemployment compensation literature.

Chapter One assesses the accuracy of the unemployment compensation fund forecasts prepared by Research and Planning for MDES's Advisory Council. Chapter Two evaluates the adequacy of current law in avoiding future fund deficits. Chapter Three discusses the merits and drawbacks of incurring such deficits, given current federal laws and proposed changes.

Appendix A briefly summarizes current state unemployment compensation law. Appendix B explains the general methodology of fund forecasting employed in Chapter One.

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[1] *This system has been administered by the Minnesota Department of Employment Services (MDES). Under 1977 legislation (Chapter 430), the newly created Minnesota Department of Economic Security began to administer the unemployment compensation system on December 1, 1977.*

CHAPTER ONE
FORECASTING BENEFITS AND TAX REVENUES

This chapter evaluates the methodology and economic assumptions used by the Research and Planning Branch of the Minnesota Department of Employment Services to forecast future unemployment compensation benefits and tax revenues. We also examine the implications of alternative economic assumptions on future unemployment rates for future unemployment compensation fund balances.

MDES FORECASTS

We examined the two fund forecasts issued by MDES over the last two years. The Research and Planning Branch of MDES prepares such forecasts for and provides additional information to the MDES Advisory Council. The Advisory Council is comprised of representatives of employer, employee, and general public interests. The Council aids MDES in formulating policy and discussing problems related to the unemployment compensation system.

Prior to the 1977 law changes, the Council recommended a bill to the Legislature. The November 18, 1976 forecast accompanying those recommendations was the first forecast we examined. After we had informed R&P of our preliminary findings on this forecast, R&P issued another forecast (August 12, 1977) for the fund, under the provisions of the new law passed during the 1977 session. We have also evaluated that second forecast.

FORECASTING METHODOLOGY[1]

The incomplete documentation of methods and economic assumptions used in the first forecast made the task of judging the reasonableness of that forecast difficult.[2] We reconstructed R&P's forecasting

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[1] Appendix B provides a brief introduction to methods of forecasting future fund balances. More detailed information is available on request.

[2] R&P's method of estimating future average tax rates was particularly difficult to reconstruct. An alternative method, suggested by R&P, was used in all of our forecasts and in their later forecast.

methodology and developed a computer program to do the calculations. As a result, several minor changes in methodology were needed and can be implemented by using the computer program.[3]

ECONOMIC ASSUMPTIONS

Three sets of economic assumptions are crucial in making an unemployment compensation fund forecast. Future Minnesota rates of compensable unemployment, wage inflation, and growth in covered employment have a strong influence on future fund balances. These rates cannot, however, be accurately predicted even as much as one year into the future.

Compensable Unemployment Rates

The major problem in predicting future benefit payments is estimating future Minnesota compensable unemployment rates (CUR's). These rates depend primarily on future United States unemployment rates.[4] Unfortunately, accurately predicting the U.S. unemployment rate more than a year into the future is not currently possible. One alternative is to judge what the average U.S. unemployment rate is likely to be over the next ten years and examine the consequences of various unemployment rate patterns with approximately this average. It is the professional judgment of the Program Evaluation Division's economists that the average U.S. rate is likely to be between 6.0 and 7.0 percent over the next ten years. A rate of 6.5 percent would be a reasonable estimate of the average. The unemployment rate assumptions used by the Research and Planning Branch of MDES are evaluated later in this chapter.

Wage Inflation Rates

The wage inflation rate in covered employment is also difficult to predict accurately. Both R&P and the Program Evaluation Division (PED) have assumed a constant rate of growth in average annual wages of 7 percent. From 1973 to 1976, the average annual wage inflation rate was 7.4 percent. Prior to 1973, wages grew less rapidly. Ideally, rates other than 7 percent should be examined. However, we have concentrated on the unemployment rate assumptions since they have much greater impact on the fund.[5]

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[3]*Their method of calculating the statewide average weekly benefit amount was accurate but the calculations quite tedious. We simplified the calculations and incorporated them in the computer program. We also used an alternative means of estimating taxable wages.*

[4]*A staff paper entitled "Forecasting Unemployment Compensation Benefits" explains the historical relationship between U.S. unemployment rates and Minnesota CUR's. It also shows the adjustments made to this relationship by R&P to reflect the proposed (and adopted) changes in benefit eligibility requirements. The primary adjustment was due to the changes in the provisions dealing with voluntary quits.*

[5]*Given current law, wage inflation causes benefits to grow more than tax revenues do. The higher the wage inflation rate assumed, the more pessimistic the fund forecast will be.*

Employment Growth Rates

R&P and PED have used the same assumptions on future rates of growth in covered employment. While alternative assumptions could be examined, they would probably not affect the fund significantly.

In the early forecast, employment was assumed to grow 2.5 percent annually. The fund forecast for current law assumes that rate of growth until 1981. The growth rate is then assumed to be 1.4 percent from 1981 through 1985. The actual growth rate has averaged 3.3 percent over the last ten years but only 1.8 percent over the last three.

MDES FORECAST FOR THE ADVISORY COUNCIL BILL

The Advisory Council's bill differed from the law eventually passed in one area important for forecasting.[6] As a result, the Advisory Council's bill would have provided slightly less total benefits than current law does.[7] Nonetheless, we evaluated this forecast for its accuracy and the reasonableness of its methodology and assumptions. Table I-1 shows the results of this forecast.

Economic Assumptions

This forecast assumes annual wage inflation of 7 percent and annual employment growth of 2.5 percent. R&P presented two different projections based on two different unemployment rate assumptions. The optimistic projection assumed the U.S. unemployment rate would be 6.5 percent in 1977, 5.8 percent in 1978, and 5.5 percent from 1979 through 1984. These rates were suggested by the Department of Labor for R&P's use in fund forecasting. R&P added a second more pessimistic projection with U.S. rates of 7.6 percent in 1977 and 6.9 percent from 1978 through 1984. The average unemployment rates for the two projections are 5.66 and 6.99 percent, respectively, over the eight year period. We will later comment on these assumptions with regard to R&P's forecast for current law.

Accuracy of Calculations

The November 18, 1976 forecast contained several calculation errors. The most important error in Table I-1 is the overestimation of benefit costs resulting in a fund forecast which is too pessimistic. Higher CUR's than the correct ones listed in Table I-1 were actually used in the calculations. In fact, these higher (and incorrect) CUR's are the rates which would have resulted if the proposed eligibility requirement changes (mainly the changes covering voluntary quits) had not been adopted. R&P carefully lowered these higher CUR's to reflect the law changes recommended by the Advisory Council. The actual calculations, however, were based on the higher set of CUR's.

For the optimistic forecast, this error alone would have caused benefits to be overestimated by $6 million in 1977 and by $20 to $30 million in each of the following years. The error would have caused the fund balance at the end of 1984 to be estimated too low by about $175 million. For the more pessimistic forecast, the error would have resulted in benefit overestimation of $6 million in 1977 and $30 to $55 million in each of the following years. The 1984 year end fund would have been estimated too low by about $300 million.

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[6]We reported on our initial findings with respect to this forecast in a Preliminary Report on August 23, 1977.

[7]The bill would have set a claimant's weekly benefit amount equal to a constant 50 percent of average weekly wages, up to a maximum weekly benefit amount. Recent legislation left unchanged the existing 60-40-50 percent formula. See Appendix A for an explanation of this formula.

TABLE I-1

MDES FORECAST FOR THE ADVISORY COUNCIL'S BILL

Taxable Wage Ceiling = $7,000 in 1977, $7,500 in 1978, $8,000 in 1979 on; Minimum Tax Rate = 1.0% when fund less than $80 M; Maximum Tax Rate = 7.5%; Eligible at 15 weeks and $50; Lift $116 limit on MWBA in 1977; MWBA = 64% in 1978; MWBA = 66-2/3% in 1979; 4 x MWBA Requalifying for VQ's, Misconduct and refusal of employment; Remove $520 rule (noncharges); WBA = 50% of weekly wage to MWBA

Year	Compensable Unemployment Rate[1]	Income Minnesota[2]	Income FUTA	Benefits[3]	Year End Fund	Taxable Wages	Tax Ceiling	Tax Rate Minimum	Tax Rate FUTA[4]	Average (Incl. FUTA)
1977	3.3%	$181M		$195M	$-114M	$ 7,300M	$7,000	1.0%		2.48%
1978	2.8	196		187	-105	8,000	7,500	1.0		2.45
1979	2.6	211		189	-83	8,900	8,000	1.0	0.3 (0.23)	2.60
1980	2.6	213	20	187	-37	9,200	8,000	1.0	0.6 (0.46)	2.78
1981	2.6	213	42	205	+13	9,400	8,000	1.0		2.27
1982	2.6	220		225	+8	9,700	8,000	1.0		2.27
1983	2.6	223		247	-6	10,100	8,000	1.0		2.31
1984	2.6	240		271	-37	10,400	8,000	1.0		2.31

Same Legislation but a Pessimistic Unemployment Forecast

Year	Compensable Unemployment Rate[1]	Income Minnesota[2]	Income FUTA	Benefits[3]	Year End Fund	Taxable Wages	Tax Ceiling	Tax Rate Minimum	Tax Rate FUTA[4]	Average (Incl. FUTA)
1977	3.9%	$181M		$231M	$-150M	$ 7,300M	$7,000	1.0%		2.48%
1978	3.5	198		233	-185	8,000	7,500	1.0		2.48
1979	3.5	225		261	-221	8,900	8,000	1.0	0.3 (0.23)	2.76
1980	3.5	239	20	290	-252	9,200	8,000	1.0	0.6 (0.46)	3.06
1981	3.5	250	42	318	-278	9,400	8,000	1.0	0.9 (0.69)	3.35
1982	3.5	263	65	349	-299	9,700	8,000	1.0	1.23 (0.95)	3.64
1983	3.5	279	92	384	-312	10,100	8,000	1.0	1.74 (1.34)	3.92
1984	3.5	294	135	420	-303	10,400	8,000	1.0	2.18 (1.66)	4.20

[1] Lower because of requalifying requirement

[2] Excludes reimbursable

[3] Excludes reimbursable, includes State share of E.B.

[4] FUTA ceiling — $6,000, figures in parenthesis are effective FUTA rate on Minnesota's Taxable Wages

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November 18, 1976

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R&P made another error which tended to partially offset this initial error. This forecast assumed the weekly benefit amount was equal to 50 percent of average weekly wages. In fact, R&P initially followed this assumption. However, after calculating total benefits in accordance with the 50 percent assumption, R&P made a downward revision in its benefit estimates. The revision was made because R&P thought that their calculations were based on the 60-40-50 percent weekly benefit formula which was then and still is part of the law. No revision was needed since they had used the 50 percent formula all along.

A final error affected both benefits and tax revenues. R&P failed to use their stated assumption of 2.5 percent annual growth in employment consistently. These errors were probably due to the incomplete documentation of methods and assumptions and the short period of time given to R&P to prepare this forecast.

Due to the partially offsetting errors, R&P's optimistic forecast underestimated the 1984 year end fund by $54 million instead of $175 million. The pessimistic forecast was off by $96 million instead of $300 million.

Program Evaluation Division Computer Models

Table I-2 provides correct estimates of benefits, revenues, and the year end fund, given R&P's economic assumptions. This table was prepared through the use of a computer program developed by the Program Evaluation Division. This and other computer programs developed for MDES's use are extremely simple to use and provide speedy results. The major advantage of the computer program is its flexibility in examining the consequences of various sets of economic assumptions and different legislation.

Recommendation I-1:

> MDES should allocate to R&P the very limited funds necessary to acquire a computer terminal and computing time for forecasting purposes. We estimate these costs to be no greater than $3700 in the first year and $1400 in each succeeding year, at current prices.

MDES FORECAST FOR CURRENT LAW

On August 12, 1977, R&P released a forecast of the effects of current law on the fund. We found this forecast to be better documented and free of calculation errors. Another of our computer models was used to double-check its accuracy. The results of this forecast are shown in Table I-3.

This forecast, like the one from the previous November, contains two different projections — an optimistic and a pessimistic unemployment rate pattern over the next eight years. The first projection assumes a U.S. unemployment rate of 6.5 percent in 1978, 5.7 percent in 1979, and 5.5 percent from 1980 through 1985. Over these eight years, the average rate is 5.65 percent. The fund is out of debt by the end of 1979. By 1983, the surplus has reac' ed $103 million. The second projection assumes a rate of 8.0 percent for every year from 1978 to 1985. In that case, the fund's deficit grows to $266 million by 1985.

TABLE I-2
CORRECTED FORECAST FOR THE ADVISORY COUNCIL'S BILL*

Year	Compensable Unemployment Rate	Income Minnesota	Income FUTA	Benefits	Year End Fund	Taxable Wages	Tax Ceiling	Tax Rate Minimum	Tax Rate FUTA	Tax Rate Average (Incl. FUTA)
1977	3.3%	$178M		$189M	$−111M	$ 7,151M	$7,000	1.0%		2.48%
1978	2.8	199		176	−88	7,851	7,500	1.0		2.54
1979	2.6	203		183	−68	8,590	8,000	1.0	0.3 (0.24)	2.60
1980	2.6	204	21M	180	−23	8,953	8,000	1.0	0.6 (0.48)	2.78
1981	2.6	208	43	198	+30	9,331	8,000	1.0		2.23
1982	2.6	219		217	+32	9,725	8,000	1.0		2.25
1983	2.6	234		238	+28	10,135	8,000	1.0		2.31
1984	2.6	250		261	+17	10,563	8,000	1.0		2.36

Same Legislation but a Pessimistic Unemployment Forecast

Year	Compensable Unemployment Rate	Income Minnesota	Income FUTA	Benefits	Year End Fund	Taxable Wages	Tax Ceiling	Tax Rate Minimum	Tax Rate FUTA	Tax Rate Average (Incl. FUTA)
1977	3.9%	$178M		$229M	$−151M	$ 7,151M	$7,000	1.0%		2.48%
1978	3.5	207		219	−163	7,851	7,500	1.0		2.64
1979	3.5	218		243	−188	8,590	8,000	1.0	0.3 (0.24)	2.78
1980	3.5	228	21M	270	−209	8,953	8,000	1.0	0.6 (0.48)	3.03
1981	3.5	235	43	296	−227	9,331	8,000	1.0	0.9 (0.72)	3.25
1982	3.5	251	67	325	−234	9,725	8,000	1.0	1.2 (0.97)	3.55
1983	3.5	269	94	356	−227	10,135	8,000	1.0	1.51 (1.22)	3.87
1984	3.5	288	123	391	−207	10,563	8,000	1.0	1.82 (1.47)	4.20

*This is the current law with one important exception. These projections assume the weekly benefit amount equals 50% of the claimant's weekly wage, up to the maximum weekly benefit amount (MWBA). Current law provides a claimant with 60% of the first $85 of weekly wages, 40% of the next $85, and 50% of the remaining weekly wages, up to the MWBA. This table is based on information available at the time Table I-1 was prepared (November 18, 1976).

TABLE I-3
MDES FORECAST FOR CURRENT LAW

Present Law

Year	Unemployment Rate[1] National Total	Unemployment Rate[1] Minnesota Compensable	Benefits[2]	Income[2] Minnesota	Income[2] FUTA	Year End Fund	Maximum[3] WBA in July	Tax Ceiling
1977	7.0%	3.0%	$170M	$185M		(−104) $ −89M	$122	$7,000
1978	6.5	2.8	162	204		−47	135	7,500
1979	5.7	2.3	149	211		15	150	8,000
1980	5.5	2.2	159	207		63	161	8,000
1981	5.5	2.2	173	199		89	172	8,000
1982	5.5	2.2	187	198		100	184	8,000
1983	5.5	2.2	202	205		103	197	8,000
1984	5.5	2.2	219	213		97	211	8,000
1985	5.5	2.2	238	221		80	226	8,000

Present Law but a Pessimistic Unemployment Forecast

Year	Unemployment Rate[1] National Total	Unemployment Rate[1] Minnesota Compensable	Benefits[2]	Income[2] Minnesota	Income[2] FUTA	Year End Fund	Maximum[3] WBA in July	Tax Ceiling
1977	7.0%	3.0%	$170M	$185M		$ −89M	$122	$7,000
1978	8.0	3.6	236	204		−121	135	7,500
1979	8.0	3.6	261	218		−164	150	8,000
1980	8.0	3.6	288	227	$ 21M	−204	161	8,000
1981	8.0	3.6	313	237	44	−236	172	8,000
1982	8.0	3.6	339	252	68	−255	184	8,000
1983	8.0	3.6	367	262	91	−269	197	8,000
1984	8.0	3.6	398	270	119	−278	211	8,000
1985	8.0	3.6	431	276	167	−266	226	8,000

[1] National Rate assumed; Minnesota CUR based on national rate.
[2] Excludes reimbursable. Employment assumed to grow 2.5% through 1980, then 1.4%. Average weekly wages assumed to grow at 7.0% annual rate.
[3] 66-2/3% AWW starting July 1979.

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It is possible that the national economy may recover as fast as the optimistic forecast assumes. However, it is not very probable. Even if the U.S. unemployment rate reaches 5.5 percent in 1980, it is not likely to remain that low for very long. R&P's optimistic forecast shows a rate of 5.5 percent for six years. The pessimistic forecast is also unrealistic. We may again experience unemployment rates of 8 percent (or more), but probably not for such an extended period of time (eight years).

Recommendation I-2:

> Research and Planning should examine the consequences of a number of unemployment rate assumptions. Unemployment rate patterns with an average rate between 6.0 and 7.0 percent would, in our opinion, be more realistic.

ALTERNATIVE FORECASTS

The unemployment assumptions in R&P forecasts have been either too optimistic or too pessimistic. Either the economy recovers quickly from the current recession and continues to prosper for six years or the economy is in a deep recession for an eight year period. We present several alternative forecasts with more variable unemployment rates and with average U.S. unemployment rates between 6 and 7 percent. Table I-4 lists these alternative U.S. unemployment rates over the ten year period, 1978-87.[8] Table I-5 lists the year end fund balances resulting from current law using the rate patterns in Table I-4.[9]

ALTERNATIVE FORECASTS FOR CURRENT LAW

Pattern 1 assumes a slow but steady reduction in the unemployment rate until it reaches 5.8 percent in 1982. The rate then rises to 7.0 percent by 1984 and again declines to 5.6 percent by 1987. The average rate is 6.4 percent over the next 8 years and 6.25 percent over the next 10 years. By the end of 1981, the fund would be out of debt. No sizable surplus would be built up, given current law. The fund would again be in debt from early 1984 through at least 1987.

Pattern 2 assumes that the unemployment rates will be the same as in MDES's optimistic forecast through 1981. Then the economy is assumed to enter a recession slowly. The unemployment rate peaks at 8.0 percent in 1985 and then falls to 6.5 percent by 1987. Over the next eight years, the average rate is 6.46 percent. The ten year average is 6.52 percent. By the end of 1979, the fund would be out of debt. The fund would be back in debt, however, by 1984 and remain in debt through at least 1987. At the end of 1987, the debt would grow to $403 million.

Pattern 3 assumes a slow recovery of the national economy. The unemployment rate falls to 5.0 percent in 1981 but generally increases thereafter. Over the next eight years, the average rate is 6.18 percent. The ten year average is 6.44 percent. The fund would be just barely out of debt at the end of 1980. Under current law, a surplus would exist for only three years. The fund would be back in debt from early 1984 through at least the end of 1987. By the end of 1987, the debt would grow to $420 million.

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[8]*In each of these forecasts, the unemployment rate for 1977 is assumed to be 7.0 percent.*

[9]*Each of these forecasts was prepared using current federal law and regulations regarding loan repayment.*

TABLE I-4
ALTERNATIVE UNITED STATES UNEMPLOYMENT RATE PATTERNS

U.S. Unemployment Rate (in percentages)

Year	Pattern 1	Pattern 2	Pattern 3	Pattern 4	Pattern 5	Pattern 6
1977	7.0	7.0	7.0	7.0	7.0	7.0
1978	6.8	6.5	6.5	6.5	6.8	6.8
1979	6.6	5.7	6.7	5.7	7.0	7.0
1980	6.4	5.5	6.2	5.5	7.2	7.2
1981	6.0	5.5	5.0	6.2	7.0	7.0
1982	5.8	6.0	5.2	7.5	6.5	6.8
1983	6.2	6.9	7.0	8.0	5.7	6.5
1984	7.0	7.6	7.0	7.0	6.0	6.8
1985	6.4	8.0	5.8	6.5	6.8	6.8
1986	5.7	7.0	6.2	5.7	7.2	7.2
1987	5.6	6.5	8.8	5.5	7.0	7.0
Eight Year Average (1978-85)	6.40	6.46	6.18	6.61	6.62	6.86
Ten Year Average (1978-87)	6.25	6.52	6.44	6.41	6.72	6.91

TABLE I-5
YEAR END FUND BALANCES UNDER ALTERNATIVE UNEMPLOYMENT RATE ASSUMPTIONS

Year End Fund Balance (in millions of dollars)

Year	Pattern 1	Pattern 2	Pattern 3	Pattern 4	Pattern 5	Pattern 6
1977	$ −89	$ −89	$ −89	$ −89	$ −89	$ −89
1978	−57	−47	−47	−47	−57	−57
1979	−25	16	−20	16	−51	−51
1980	−6	64	5	64	−89	−89
1981	14	92	66	62	−119	−119
1982	31	82	103	−47	−99	−113
1983	14	17	17	−193	−28	−80
1984	−94	−130	−102	−259	35	−54
1985	−140	−306	−113	−255	−35	−20
1986	−145	−391	−150	−190	−190	−157
1987	−133	−403	−420	−116	−294	−227

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Pattern 4 is identical to MDES's optimistic forecast through 1980. A recession follows and peaks at an 8.0 percent unemployment rate in 1983. A rapid recovery then occurs, resulting in a 5.5 percent rate in 1987. The eight year average unemployment rate is 6.61 percent, while the ten year average is 6.41 percent. The fund would be out of debt by the end of 1979 but back in debt by 1982. The fund would remain in debt through 1987.

Patterns 5 and 6 assume unemployment rates will not vary much over the ten year period. Over the next eight years, the average rate is 6.62 percent for Pattern 5 and 6.86 percent for Pattern 6. The ten year average is 6.72 percent for Pattern 5 and 6.91 percent for pattern 6. Under these conditions, the fund would remain in debt for almost the entire ten year period. For Pattern 5, a surplus would occur only in parts of 1984 and 1985. A surplus would exist only for part of 1985 under Pattern 6.

While none of these six unemployment rate patterns can be claimed as the only "true" pattern, some generalizations can be made about the six fund balance forecasts resulting from these patterns. Under current law, the fund will probably be out of debt by the end of 1981 or early 1982, provided the national economy recovers significantly as happens with Patterns 1 through 4.[10] The surplus in the fund would not ever become large or last for more than three to five years under current law. If the U.S. unemployment rate, however, hovers around or just below the current 7.0 percent rate, the fund would not have a surplus until the mid 1980's, as with Patterns 5 and 6. The fund would then go back in debt rather quickly. In either case, future changes in state law would appear necessary to avoid debt in the 1980's.

ALTERNATIVE FORECASTS WITH TAX BASE INDEXING

We have examined the implications of changing the tax base in the years 1980-1987, under various unemployment rate assumptions. The tax base is scheduled to increase to $7,500 in 1978 and $8,000 in 1979 and succeeding years. We let the tax base in 1980 and later years be equal to 70 percent of the second previous year's statewide average annual wage. In other words, the tax base is "indexed" for inflation. This assumption means a tax base of about $8,200 in 1980 with a seven percent annual increase in the tax base thereafter. Table I-6 illustrates the impact of tax base indexing on future fund balances.

Under Pattern 3 of unemployment rates, this tax base indexing would cause the surplus to last three years longer than under current law. Not until 1987 would the fund go back in debt, if tax base indexing were adopted in 1980. At the end of 1987, the debt would be $120 million with tax base indexing instead of $420 million. The resulting fund for Pattern 4 has a surplus of $154 million in 1987, instead of the deficit of $116 million when the tax base remains at $8,000. For Pattern 6, tax base indexing would reduce the end of 1987 deficit from $227 million to $62 million.

It seems that an increasing tax base will be necessary to keep the fund out of debt in an inflationary economy. Tax base indexing is one way of increasing the tax base at appropriate times. Chapter Two examines this point in greater detail.

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[10]*When a small surplus is shown in Table I-5, Minnesota would probably still be "in debt." The state might not choose to fully repay its loan from the Federal Unemployment Account since only a small, insufficient surplus would be available from which to pay current benefits. Pattern 1, for example, shows a surplus of $14 million at the end of 1981. In that case, the entire loan might not be repaid by the end of 1981, since more than $14 million would be needed to pay benefits in early 1982.*

TABLE I-6

YEAR END FUND BALANCES WITH AND WITHOUT TAX BASE INDEXING STARTING IN 1980 UNDER VARIOUS UNEMPLOYMENT RATE PATTERNS*

Year End Fund Balances
(in millions of dollars)

Year	UNEMPLOYMENT PATTERN 3		UNEMPLOYMENT PATTERN 4		UNEMPLOYMENT PATTERN 6	
	Current Law	Tax Base Indexing	Current Law	Tax Base Indexing	Current Law	Tax Base Indexing
1977	$ −89	$ −89	$ −89	$ −89	$ −89	$ −89
1978	−47	−47	−47	−47	−57	−57
1979	−20	−20	16	16	−51	−51
1980	5	8	64	67	−89	−86
1981	66	83	62	79	−119	−101
1982	103	145	−47	−7	−113	−69
1983	17	92	−193	−117	−80	2
1984	−102	16	−259	−136	−54	11
1985	−113	60	−255	−71	−20	14
1986	−150	91	−190	65	−157	−54
1987	−420	−120	−116	154	−227	−62

*Without law changes, the tax base will be $7,500 in 1978 and $8,000 in 1979 and succeeding years. Tax base indexing would result in a tax base of $8,200 in 1980, with a seven percent annual increase in the tax base in succeeding years. We assume state law would be changed to set the tax base equal to 70 percent of the second previous year's statewide average annual wage. The annual wage inflation rate is assumed to be seven percent.

CHAPTER TWO
METHODS OF AVOIDING DEBT

Minnesota's unemployment compensation fund has been in debt since July 1975 and is likely to remain in debt through at least 1979. The state fund currently owes $172 million to the federal government.[1] This chapter addresses the need for future changes in the unemployment compensation laws, if the State of Minnesota desires to avoid debt and maintain a solvent fund a large percentage of the time.

EFFECTS OF INFLATION

Under current law, the average weekly benefit amount received is closely related to the average weekly wage paid in covered employment.[2] Wage inflation (an increase in the average weekly wage) causes the average weekly benefit amount to increase. The result is that total benefits tend to grow over time as inflation in wages occurs.[3] One might say that benefits are basically "indexed" for inflation. In fact, they are indexed for any wage changes, including wage deflation.

On the other hand, unemployment compensation law has not explicitly indexed tax revenues for changes in wages. As long as the tax base is constant and the schedule of minimum tax rates is unchanged, tax revenues do not increase nearly as much as wages (and benefits) increase. We find that while benefits tend to increase almost as much as wages, tax revenues increase only about 25 percent as much as wages. A six percent wage inflation rate, for example, causes an increase of five to six percent in benefits but only about a one and one-half percent increase in tax revenues.

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[1] The fund's "net deficit" was $104 million at the end of 1976 and is estimated to be $89 million by the end of 1977. This means that the fund will hold about $83 million at the end of 1977 and still owe $172 million, leaving a "net deficit" of $89 million.

[2] An individual's weekly benefit amount depends, by law, on his average weekly wage. The maximum weekly benefit amount an individual may receive depends, by law, on the statewide average weekly wage. See Appendix A for an explanation of these provisions of the law.

[3] Total benefits depend also on Minnesota's CUR's and rate of employment growth. Given a constant CUR and no change in employment, total benefits will change in response to changes in the statewide average weekly wage.

The legislative reaction to these inflationary effects has been to increase the tax base and adjust the minimum tax rate schedule frequently. These adjustments on the tax side were necessary to enable tax revenues to grow with wage inflation as benefits have done.

PAST TAX LAW CHANGES

The two tax provisions which determine the degree of indexing of tax revenues to wages are the tax base and the schedule of minimum tax rates.

TAX BASE

Each employer covered by the law pays taxes on a portion of his/her total payroll. The state tax base (or tax ceiling) is the maximum dollar amount of each employee's earnings which is subject to the employer tax. The tax base was $3,000 from 1949 to 1965, $4,800 from 1966 to 1975, $6,200 in 1976, and $7,000 in 1977. It is scheduled, by law, to increase to $7,500 in 1978 and $8,000 in 1979. Thus, the tax base has been increased three times in the past twelve years and will increase again in 1978 and 1979 under current law.

MINIMUM TAX RATE SCHEDULE

Each employer pays a tax equal to his/her taxable payroll times his/her assigned tax rate. This tax rate is equal to the minimum tax rate plus the employer's experience ratio. While an employer's experience ratio depends on the benefits received by previous employees, the minimum tax rate is common to all employers.

The minimum tax rate for a given year is now set according to the dollar balance in the state fund (excluding any federal loans) at the end of June in the previous year. The schedule of rates assigns a higher minimum tax rate for a lower fund balance. Currently, if the surplus at the end of the previous fiscal year was less than $80 million or a deficit existed, then this year's minimum tax rate would be 1.0 percent. If the fund was between $80 million and $90 million, then the minimum tax rate would be 0.9 percent. Between $90 million and $110 million, the minimum tax rate would be 0.8 percent. The reduction in the minimum tax rate continues for higher fund balances until any fund over $200 million results in a minimum tax rate of 0.1 percent.

Previous minimum tax rate schedules have had the same basic feature: the higher the fund balance the lower the minimum tax rate. The schedule, however, has been revised "upward" six times in the last twelve years. In three of these years, the highest possible minimum tax rate was increased. For four of the six changes, the schedule was adjusted for the effects of inflation. Each minimum tax rate appearing on the old schedule was generally associated with higher fund balances on the new schedule than on the old. Table II-1 outlines these six recent changes in the minimum tax rate schedule.

ADEQUACY OF THE FUND

MEASURING PAST FUND ADEQUACY

While there have been periodic increases in the tax base and frequent revisions in the minimum tax rate schedule, these changes have not been frequent or extensive enough to build up an adequate surplus. MDES's Research and Planning Branch has estimated that an adequate fund in normal times

TABLE II-1
MINIMUM TAX RATE SCHEDULES

	Fund Balance (in millions of dollars)*	Minimum Tax Rate
1966 – 67:	Below $50 M	0.7%
	Between $50 and $60 M	0.5
	Between $60 and $70 M	0.3
	Above $70 M	0.1
1968:	Below $70 M	0.7%
	Between $70 and $90 M	0.5
	Between $90 and $110 M	0.3
	Above $110 M	0.1
1969 – 71:	Below $110 M	0.7%
	Between $110 and $120 M	0.5
	Between $120 and $140 M	0.3
	Above $140 M	0.1
1972 – 73:	Below $130 M	0.7%
	Between $130 and $150 M	0.6
	Between $150 and $170 M	0.5
	Between $170 and $200 M	0.3
	Above $200 M	0.1
1974 – 76:	Below $90 M	0.9%
	Between $90 and $110 M	0.8
	Between $110 and $130 M	0.7
	Between $130 and $150 M	0.6
	Between $150 and $170 M	0.5
	Between $170 and $200 M	0.3
	Above $200 M	0.1
1977 – :	Below $80 M	1.0%
	Between $80 and $90 M	0.9
	Between $90 and $110 M	0.8
	Between $110 and $130 M	0.7
	Between $130 and $150 M	0.6
	Between $150 and $170 M	0.5
	Between $170 and $200 M	0.3
	Above $200 M	0.1

*Balance at the end of June of the previous year.

would range from 2.5 percent to 5.0 percent of the total wages in covered employment.[4,5] To avoid debt most of the time, a minimally acceptable fund surplus would thus be 2.5 percent of total wages during a period in which the unemployment rate was about average.

Minnesota's year end surplus, however, has not been this large since 1958 when this percentage was 2.91 percent of total wages. In 1959, the fund was at 2.46 percent. Since 1959, the fund has never been higher than 1.94 percent. In thirteen of the last eighteen years (including 1977), this percentage was 1.25 percent or less. In eight of those years, the percentage was less than 1.0 percent. For the past three years (including 1977), the percentage has been less than zero percent because of the fund's deficit. Table II-2 shows these percentages from 1938 to the present.

FUTURE FUND ADEQUACY

In order to maintain an adequate fund surplus in the future, more frequent and extensive changes in the tax base and minimum tax rate schedule would have to be made. An alternative means of insuring an adequate surplus is to pass legislation which would automatically make such changes in response to inflation (or deflation) in average Minnesota wages. These automatic adjustments have certain advantages over the frequent law revisions which would otherwise need to occur. Automatic adjustments save valuable time for future Legislatures and insure that the necessary adjustments do take place at appropriate times.

Tax Base

For example, the tax base in a given year could be set equal to a fixed percentage of the statewide average annual wage from the second previous year. Recent legislation increased the tax base to $7,000 for 1977, $7,500 for 1978, and $8,000 for 1979. The tax base in any of those years happens to be about 73 percent of the average annual wage from the second previous year. Without future law changes, that percentage would, however, decline starting in 1980, and probably fall below 50 percent by 1985. Enacting the automatic tax base adjustment into law would keep that percentage relatively constant over time.

Minimum Tax Rate Schedule

Use of a "fund ratio" schedule of minimum tax rates would eliminate the need for altering the current schedule every time significant wage inflation (or deflation) occurs. Research and Planning has suggested a number of "fund ratio" schedules.[6] Table II-3 illustrates one such schedule. The "fund ratio" schedule sets a minimum tax rate in a particular year according to the adequacy of the fund in the previous year. In this case, fund adequacy is measured by dividing the fund balance by taxable, rather than total, wages. Provided the tax base is indexed for inflation (as mentioned above), it is appropriate to use either taxable or total wages in obtaining the fund adequacy measure.[7]

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[4]Total wages do not include wages paid by reimbursable employers. See Appendix A for a description of reimbursable employers.

[5]MDES's estimate was contained in a paper entitled "Unemployment Insurance Fund Forecasts and Revenue Sources," which was presented to the Senate Labor and Commerce Committee on December 10, 1975. This estimate is based on the "1½ rule" which states that the fund as a percentage of total wages should be at least 1½ times, but not more than 3 times, the highest 12 month cost rate experienced in Minnesota. The cost rate is the percentage obtained by dividing the benefits paid by the state by the total wages in covered employment.

At the time the estimate was prepared, the highest previous cost rate was 1.69 percent in 1958. If total wages earned by reimbursables are excluded, then the cost rate for 1975 was about 1.78 percent. Based on the 1975 cost rate, a minimally adequate fund would be 2.67 percent of total wages.

[6]See the previously cited MDES report for the Senate Labor and Commerce Committee of December 10, 1975.

[7]The numerical range of fund ratios appropriate for each minimum tax rate would, however, be different if total wages were used in the adequacy measure.

TABLE II-2

ADEQUACY OF THE UNEMPLOYMENT COMPENSATION FUND

Year	Year End Fund Balance as a Percentage of Total Wages*
1938	3.13%
1939	4.47
1940	4.74
1941	4.88
1942	4.90
1943	6.05
1944	7.90
1945	9.61
1946	9.13
1947	8.59
1948	8.28
1949	8.16
1950	7.18
1951	6.77
1952	6.42
1953	6.07
1954	5.52
1955	4.97
1956	4.51
1957	4.01
1958	2.91
1959	2.46
1960	1.94
1961	1.25
1962	1.05
1963	0.79
1964	0.58
1965	0.65
1966	1.08
1967	1.35
1968	1.55
1969	1.79
1970	1.66
1971	1.23
1972	0.94
1973	1.01
1974	0.75
1975	−0.33
1976	−0.88
(est.) 1977	−0.69

*These are the total wages paid by covered employers excluding reimbursables.

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TABLE II-3
FUND RATIO SCHEDULE OF MINIMUM TAX RATES

Fund Ratio*	Minimum Tax Rate
Less than or equal to 1.0%	1.5%
More than 1.0% but less than or equal to 1.5%	1.4%
More than 1.5% but less than or equal to 1.9%	1.3%
More than 1.9% but less than or equal to 2.2%	1.2%
More than 2.2% but less than or equal to 2.3%	1.1%
More than 2.4% but less than or equal to 2.6%	1.0%
More than 2.6% but less than or equal to 2.9%	0.9%
More than 2.9% but less than or equal to 3.1%	0.8%
More than 3.1% but less than or equal to 3.4%	0.7%
More than 3.4% but less than or equal to 3.6%	0.6%
More than 3.6% but less than or equal to 3.8%	0.5%
More than 3.8% but less than or equal to 4.1%	0.4%
More than 4.1% but less than or equal to 4.4%	0.3%
More than 4.4% but less than or equal to 5.5%	0.2%
More than 5.5%	0.1%

*The fund ratio for a given rate year is calculated as the ratio of the total amount of money in the unemployment compensation fund (excluding federal advances) at the end of June of the previous year divided by taxable wages for the second previous year to the rate year.

Computer Simulations

We have developed a computer model to forecast the effects of adopting these two automatic adjustment provisions into law. The model assumes that the tax base is equal to 70 percent of the second previous year's average annual wage. We examine the percentage of time the fund is in debt under two alternative minimum tax rate schedules. One schedule is the current schedule, which is kept unchanged over a twenty year period. The other is the fund ratio schedule which appeared above in Table II-3.

Given an average United States unemployment rate of 6.15 percent, the current minimum tax rate schedule would result in the fund being in debt 52.5 percent of the time. Adopting the fund ratio schedule would reduce this debt percentage to 7.5 percent over the twenty year period.[8]

Another analysis indicates that the actual fund would be solvent by early 1978 if this fund ratio schedule had been adopted in 1968. The fund would have gone into debt 6 to 12 months later than it actually did and would have a surplus of about $80 million, rather than R&P's projected deficit of $47 million, at the end of 1978.[9] Of course, adoption of the fund ratio schedule in 1968 would have

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[8] If the average U.S. unemployment rate were 6.75 percent, the fund ratio schedule would reduce the percentage of time in debt from 56.2 percent to 27.5 percent. The 27.5 percent figure is rather high considering it results from the fund ratio schedule. The reason for such a high percentage is that the fund starts out at a very inadequate level. High unemployment rates early in the twenty year period deplete the fund in the first five years even though the minimum tax rate is then at or near 1.5 percent.

[9] Both of these projections assume a United States unemployment rate of 6.5 percent for 1978.

resulted in generally higher minimum tax rates than actually occurred over the period 1968-1977. Earlier adoption of the fund ratio schedule or indexing of the tax base might have prevented any deficits from occurring.

CONCLUSION

These results illustrate how important the fund ratio schedule and tax base indexing are in maintaining a solvent fund. If the Legislature chooses to use primarily state (and not federal) financing of the unemployment compensation system, these automatic adjustments of the tax base and the minimum tax rate schedule would be a reasonable means of achieving that goal.[10] The alternative would be legislatively mandated increases in the tax base and adjustments to the minimum tax rate schedule almost every year.

We do not necessarily recommend that the state should finance the payment of unemployment compensation benefits wholly with state tax funds. The extent to which benefits should be financed by the state employer tax, given the availability of interest-free federal loans, is itself an important policy decision.

TAX BURDEN ON DIFFERENT TYPES OF EMPLOYERS

It should be noted that, under current Minnesota law, not all employers pay back in taxes the same percentage of benefits received by their employees. Employers with relatively low unemployment experience tend to pay back a larger percentage of benefits received than do employers with relatively high unemployment experience.[11]

There are two reasons why this happens. First, the minimum tax rate is paid by all employers, regardless of their unemployment experience. Second, state law limits the extent to which employers must repay, through their experience tax rate, the benefits received by their employees. (See Appendix A.) No employer's experience tax rate can rise by more than 1.5 percentage points per year. In addition, no employer's total tax rate (the experience rate plus the minimum tax rate) can be greater than 7.5 percent. The higher the minimum tax rate or the lower the maximum tax rate, the greater the relative tax burden on employers with low unemployment rates.

The decision on how the tax burden should be distributed is a legislative one. However, whatever decision the Legislature wishes to make, indexing the tax base could be viewed as a means of maintaining over time the Legislature's intended tax burden distribution. An indexed tax base will tend to keep the percentage of total taxes paid by employers at the minimum tax rate constant over time. Alternatively, raising the minimum tax rate in order to increase tax revenues would increase the relative burden on employers with little or no unemployment experience.

Thus, tax base indexing serves two purposes. First, as observed earlier, it is vital to maintaining an adequate unemployment compensation fund. Second, indexing maintains over time the Legislature's decision on how the tax burden should be distributed among employers with varying unemployment experience.

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[10]*The fund ratio schedule in Table II-3 and the 70 percent figure for tax base indexing could be used. Alternatively, a schedule with generally lower minimum tax rates for given fund ratios could be combined with tax base indexing at a percentage higher than 70. Research and Planning has investigated this area and could offer several options.*

[11]*Research and Planning has also observed that some "low wage" employers tend to pay back a larger percentage of benefits received by their employees than do some "high wage" employers. See R&P's July 1973 paper entitled "The Case For Setting Minnesota's UI Taxable Wage Ceiling At 104 Times The Maximum Weekly Benefit Amount".*

CHAPTER THREE
COSTS AND BENEFITS OF DEBT

In the previous chapter, we found that certain changes in state law are needed in order to avoid future deficits in the state unemployment compensation fund. This chapter examines the desirability of avoiding future deficits, given the availability of interest-free federal loans to states with deficits. First, we survey the federal laws and regulations permitting such loans and prescribing their repayment. Second, the costs and benefits of incurring a deficit and borrowing from the federal government are considered. Finally, we evaluate several alternative means of financing the fund, with varying degrees of reliance on federal loans.

FEDERAL LOANS TO STATE UNEMPLOYMENT COMPENSATION FUNDS

FEDERAL LOANS UNDER TITLE XII

Title XII of the Social Security Act permits a state to borrow funds interest-free from the Federal Unemployment Account (FUA) to meet a projected deficit in the state's unemployment compensation fund. The federal government makes no distinction between a deficit resulting from an underfinanced state system and one resulting from unusually high unemployment in a state with an adequately financed system. Any state with an existing or impending deficit can receive an interest-free loan from the FUA.

Currently Outstanding Loans

The lack of penalties (interest or other) for borrowing has probably provided states with some financial incentive to borrow. This incentive combined with the high United States unemployment rates of the 1970's has resulted in considerable borrowing from the FUA. As of June 15, 1977, twenty-one states, the District of Columbia, and Puerto Rico had outstanding loans from the FUA. The total value of the outstanding loans was about $4.6 billion. Table III-1 lists the loans to each of these states.

Minnesota first borrowed from the FUA in July 1975. Its outstanding debt is currently $172 million. This figure includes $47 million borrowed in 1975, $76 million borrowed in 1976, and $49 million borrowed in 1977. No portion of the total $172 million in loans has yet been repaid.

TABLE III-1
OUTSTANDING LOANS FROM THE FEDERAL UNEMPLOYMENT ACCOUNT
(as of June 15, 1977)

State	Outstanding Federal Loans (in millions of dollars)
Alabama	56.7
Arkansas	30.0
Connecticut	438.1
Delaware	36.6
District of Columbia	52.4
Florida	32.0
Hawaii	22.5
Illinois	751.6
Maine	22.9
Maryland	62.6
Massachusetts	265.0
Michigan	624.0
Minnesota	172.0
Montana	9.3
Nevada	7.6
New Jersey	638.9
New York	155.8
Oregon	18.5
Pennsylvania	847.2
Puerto Rico	67.0
Rhode Island	74.8
Vermont	46.5
Washington	137.6
TOTAL	**4,569.6**

It should be noted that borrowing from the FUA is perhaps justified due to the federal government's detrimental impact on a state's unemployment compensation fund. In the first place, the federal government should probably share some of the costs of paying a state's unemployment compensation benefits, since the recent relative high unemployment rates are probably due to federal action or inaction.

Secondly, federal laws force states to pay benefits which they might otherwise not pay. Federal law has mandated certain expansions of benefit coverage for state systems. For example, states must pay half the cost of the federal extended benefits program. From 1971 through 1976, Minnesota has paid approximately $49.3 million in extended benefits. The total is expected to climb to $67.3 million by the end of 1977. A significant portion of our deficit may have resulted from the federal extended benefits program.

Loan Repayment

Section 3302 (c) (3) of the Internal Revenue Code prescribes the method by which loans made pursuant to Title XII will be repaid. A state which borrows from the FUA does not have to begin repayment of the loan for two to three years. If a state has an outstanding loan on January 1st of two

consecutive years and has not fully repaid the loan by November 10th of that second year, an additional 0.3 percent federal tax (FUTA tax) is levied on that state's employers in the second year.[1] If the loan is still not fully repaid by November 10th of following years, then this additional tax rate is increased each year until the loan is repaid. Table III-2 explains the loan repayment schedule in detail.

All of the additional federal tax levied on a state's employers is used to repay the state's loan. The federal government, in effect, collects from employers the taxes necessary to repay the state's loan over a period of several years.

Minnesota's loan has been outstanding on January 1st of two consecutive years (1976 and 1977) and was not repaid by November 10, 1977. Under Title XII, the additional FUTA tax would first be levied in Minnesota this year, payable in January 1978. Congressional action over the past two years has delayed this starting date for repayment for Minnesota and other states. Consequently, Minnesota has not yet repaid any portion of its loan.

FEDERAL LOAN REPAYMENT UNDER 1975 AND 1977 FEDERAL LEGISLATION

Extensions of the Repayment Starting Date

The Emergency Compensation and Special Unemployment Assistance Extension Act of 1975 permits Minnesota to delay repayment of its loan for two additional years provided its unemployment compensation system during 1977 meets the requirements issued by the Secretary of Labor. In addition, the Emergency Unemployment Compensation Extension Act of 1977 permits further delay in repayment if requirements are met in 1978 and 1979. If Minnesota meets the requirements during the entire period 1977-79, then the additional FUTA tax could first be assessed on 1981 wages, payable in January 1982.

Under both Congressional Acts, the Secretary of Labor was empowered to establish the requirements for loan repayment delays for all states with outstanding loans. In November 1975, the Secretary of Labor issued the requirements for the 1975 legislation.[2] A state can meet the requirements with a minimum tax rate of at least one percent on taxable wages subject to the FUTA tax, a maximum tax rate of at least 2.7 percent on FUTA taxable wages, and an average tax rate at least as large as the state's ten-year benefit-cost rate.[3] The Department of Labor recently issued a new rule, applicable to the 1977 legislation, which retained these basic requirements.[4]

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[1] The FUTA tax is the federal employer tax established by the Federal Unemployment Tax Act. The normal FUTA tax rate is 3.2 percent. Employers in states with federally approved programs, however, receive a 2.7 percent tax credit which reduces the effective FUTA rate to 0.5 percent, paid quarterly on wages up to $4,200 in a calendar year. Until FUA loans to all states are repaid, the normal rate will be 3.4 percent, with the normal tax credit reducing the effective rate to 0.7 percent. The federal tax base will increase to $6,000 in 1978.

If a state has an outstanding loan on January 1st of two consecutive years, the 2.7 percent tax credit for employers is reduced according to the schedule in Table III-2. This reduction in tax credit is equivalent to an addition to the effective FUTA tax rate. For example, the reduction in tax credit of 0.3 percent in the first year of repayment is simply referred to as an addition of 0.3 percent to the effective tax rate.

[2] Minnesota met the requirements for 1977 and has delayed loan repayment at least until January, 1980. See 20 CFR Part 601.5 (f) of the Secretary's Regulations (published in the Federal Register in Volume 40, No. 216, November 7, 1975), effective November 7, 1975.

[3] Under the current rule, the state's minimum and maximum tax rates need not even be as large as 1.0 and 2.7 percent, respectively, since Minnesota's tax base currently is and likely will stay above the FUTA tax base. The average tax rate for a given year is obtained by dividing the estimated state unemployment taxes by the estimated total wages for that year. Contributions and wages from reimbursable employers are not included. The ten-year benefit-cost rate is obtained by dividing the sum of state paid benefits attributable to nonreimbursable employers for the ten most recently completed calendar years by the sum of total wages paid by the same employers for the same years.

[4] See 20 CFR Part 601.5(f) of the Secretary's Regulations (published in the Federal Register in Volume 43, No. 63, March 31, 1978), effective May 1, 1978.

TABLE III-2
LOAN REPAYMENT SCHEDULE UNDER TITLE XII

If full loan repayment is not made by November 10 of the tax year including:	Additional FUTA Tax Rate (or reduction in tax credit)[1]
First January 1 following the loan.	None.
Second January 1 following the loan.	0.3 percent. The additional tax is applied to wages paid during this second year.
Third January 1 following the loan.	0.6 percent, plus the difference between 2.7 percent and the average contribution rate in the preceding tax year.[2]
Fourth January 1 following the loan.	0.9 percent, plus the difference between 2.7 percent and the average contribution rate in the preceding tax year.
Fifth and later January 1's following the loan.	1.2 percent in the fifth year, 1.5 percent in the sixth year, 1.8 percent in the seventh, etc., plus the difference between the five-year benefit-cost rate or 2.7 percent, whichever is higher, and the average contribution rate in the preceding year.[3]

[1] Until FUA loans to all states are repaid, the normal FUTA tax rate on employers will be 3.4 percent. Employers normally receive a 2.7 percent tax credit which reduces the effective FUTA tax rate to 0.7 percent. If a state has an outstanding loan on January 1 of two consecutive years, the 2.7 percent tax credit is reduced according to the above schedule. The reduction in tax credit is equivalent to an addition to the effective tax rate. All of the additional tax is due at the end of the January following the tax year. If the loan is fully repaid before November 10 of any year, the tax is not due for that year.

[2] The average contribution rate is the percentage obtained by dividing the total contributions (taxes) paid into the state fund by the state's taxable wages based on the federal tax base. The federal tax base is currently $4,200 but will increase to $6,000 in 1978.

[3] The five-year benefit-cost rate is the percentage obtained by dividing one-fifth of the benefits paid by the state during the five-year period ending at the close of the second preceding calendar year by the state's taxable wages (based on the federal tax base) for the first calendar year preceding the tax year.

Minnesota Loan Repayment Delays

Minnesota's unemployment compensation system is likely to be able to meet these requirements for the entire period, 1977-1979. Current Minnesota law appears sufficient to meet the Secretary's requirements under a wide range of unemployment rate assumptions for 1977-1979.[5] The requirement of an appropriately high average tax rate is, however, barely met under some of the more pessimistic unemployment rate assumptions and should be watched closely by MDES.

Provided there is no further change in these requirements by the Secretary of Labor, Minnesota's employers would first be subject to the additional FUTA tax in 1981. The tax would first be due in January 1982. If the loan is repaid by November 10, 1981, then no additional FUTA tax will be levied.

[5] The requirements are met for all of the unemployment rate assumptions made either by R&P or PED and discussed in Chapter One.

BENEFITS FROM BORROWING

By permitting the state unemployment compensation fund to go into debt, a state can pay current benefits and collect the taxes necessary to pay the benefits two or more years later. Federal "interest-free" loans made under Title XII can be used to pay these benefits while the Minnesota fund is unable to pay them.[6] In an inflationary economy, the total unemployment taxes, in constant inflation adjusted dollars, on Minnesota employers can be reduced by greater and more frequent borrowing from the Federal Unemployment Account.[7] In general, greater use of these federal loans by a state fund lowers the state's overall real tax burden.[8]

Estimated Tax Reductions for Future Borrowing

We have estimated the tax savings resulting from future borrowing from the FUA. Our computer study examined three alternative policies: (1) Minimal borrowing, resulting from use of the fund ratio schedule of minimum tax rates suggested in Chapter Two, (2) Moderate borrowing, resulting from occasional revisions of the current minimum tax rate schedule, and (3) Considerable borrowing, resulting from continued use of the current minimum tax rate schedule.[9] In all three cases, the tax base was indexed by setting it equal to 70 percent of Minnesota's average annual wage.

The first policy results in the state unemployment compensation fund being in debt 7.5 percent of the time. In other words, the fund has an outstanding loan from the FUA at the end of 7.5 percent of the calendar quarters over a period of twenty years. The second alternative results in a debt percentage of 22.5 percent, while the third puts the fund in debt 52.5 percent of the time.

Greater use of borrowing (or higher debt percentages) results in lower overall Minnesota employer taxes, given the current interest-free nature of the loans. Taxes are approximately $8 million per year (in 1977 dollars) lower with moderate borrowing than with minimal borrowing. Considerable borrowing results in about $12 million per year less in taxes than moderate borrowing and $20 million per year less in taxes than minimal borrowing.

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[6]*Although the federal government charges no interest on a loan to the Minnesota unemployment compensation fund, the loan does impose a small cost on Minnesota taxpayers. The federal government must obtain the loaned funds from someone and must pay some cost to get them. If, for example, the funds are borrowed from the public, the federal government pays an interest charge for the use of the funds. All United States taxpayers, including Minnesotans, would pay the interest through federal income taxes.*

The amount paid by Minnesota taxpayers would, however, be very small. If the federal government pays 5 percent interest and Minnesota taxpayers pay 2 percent of the total interest payments, Minnesotans pay an effective interest rate on the loan to the state unemployment compensation fund of 0.1 percent. None of our conclusions about tax savings change when an effective interest rate of 0.1 percent, rather 0.0 percent, is used.

[7]*The overall unemployment tax burden on Minnesota employers includes, in this case, both state unemployment compensation taxes on nonreimbursable employers and the additional federal taxes which may be needed to repay loans from the FUA. The normal FUTA taxes levied on Minnesota employers remain the same whether or not our state borrows federal funds and thus are not included.*

[8]*We estimate that Minnesota unemployment compensation taxes will have been reduced by $50 million to $70 million (in 1977 dollars) as a result of the recent borrowing. The FUA funds enabled Minnesota to delay raising $172 million in taxes from the mid 1970's until probably the early 1980's.*

[9]*Moderate borrowing results from making four revisions of the minimum tax rate schedule in a twenty-year period.*

Summary

In Chapter Two, we found that both indexing the tax base and using the fund ratio schedule of minimum tax rates are necessary to establish and maintain fund solvency and minimize the need for borrowing. However, present federal laws and regulations provide a strong financial incentive to incur a debt and borrow from the FUA. While adopting these automatic law provisions would reduce the percentage of time the fund is in debt and minimize the need for borrowing, they would significantly increase total unemployment compensation taxes on Minnesota employers.

POTENTIAL COSTS TO BORROWING

Greater reliance on federal loans does increase the chance of being caught deep in debt should the federal government decide at some future date to charge interest on such loans. Even if states were given several years to adjust before interest and/or penalties would first be assessed on outstanding loans, it would be difficult to restore solvency to the fund in such a short time. In order to avoid interest charges, state unemployment compensation taxes would have to be increased greatly in a short period of time. Such an increase would have undesirable effects on the state's economy. Thus, there is some monetary incentive to avoid debt, particularly large debts.

As long as a number of other state funds are also in debt, federal law is not likely to change in the direction of charging interest on outstanding loans. Consequently, immediate Congressional changes in the interest-free loan provisions of Title XII do not appear likely.[10] In the future, should Minnesota and only a few other states remain in debt, such law changes would seem to be more likely.[11]

Regardless of the policy the state adopts now, if in the future an interest rate of five percent or more were charged on funds borrowed from the FUA, then Minnesota should change its laws at that time so as to avoid future debt. With an appropriately high interest rate, Minnesota employers would pay lower taxes if the state fund avoids, rather than incurs, debt. In order to avoid debt, indexing the tax base and adopting a fund ratio schedule of minimum tax rates would be desirable.

CONCLUSION

As long as interest-free loans are offered to state funds, there is a strong financial incentive to resort to deficit spending and borrowing. However, there is also an incentive to avoid large deficits just in case the federal government decides to change the interest-free loan provisions. In the next section, we review alternative financing methods with these considerations in mind.

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[10] There has been at least one bill introduced in Congress which would change the interest-free loan provisions. Senator Jacob Javits of New York introduced in the U.S. Senate on July 13, 1977 a bill (S. 1853) which would charge an interest rate of 6.0 percent on new loans made after its enactment. Existing loans prior to enactment would be subject to this interest rate only if the state failed to repay 20 percent of its outstanding loans each year. The proposal's main feature is the federal payment of part of each state's "excess unemployment costs." These federal subsidies would only be paid to states with "insured unemployment rates" of 6.0 percent or more. Since Minnesota does not experience such rates, the proposal would not be beneficial at all to our state.

[11] A National Commission on Unemployment Compensation has been established to make recommendations to Congress concerning future law changes. The Commission will make an interim report by September 30, 1978 and its final report by July 1, 1979.

ALTERNATIVE MEANS OF FINANCING UNEMPLOYMENT COMPENSATION BENEFITS

We outline below three alternative means of funding unemployment compensation benefit payments. The advantages and disadvantages of each alternative are briefly summarized. The basic differences among these policy alternatives lie in the frequency with which the tax base and minimum tax rate schedule are adjusted. The more frequent the adjustments the more solvent the fund will be.[12] Automatic adjustments of the tax base and minimum tax rate schedule are the equivalent of very frequent adjustments.

ALTERNATIVE 1: LITTLE OR NO BORROWING

This alternative involves almost complete financing through state unemployment taxes with little or no borrowing from the federal government. As was indicated in Chapter Two, in order to avoid debt almost entirely, the state unemployment compensation fund would need to maintain a large surplus. The average surplus would have to be at least 2.5 percent of the total wages earned in covered employment. Today, an adequate fund would be approximately $320 million by this standard. To maintain such a surplus, automatic adjustments of both the tax base and the minimum tax rate schedule would need to be enacted into law. The tax base would have to be indexed to the average annual wage. A fund ratio schedule of minimum tax rates would have to be adopted.

The major disadvantage of this policy alternative is the considerably higher combined state and federal taxes on Minnesota employers relative to other alternatives. Taxes would be about $8 million per year higher than under Alternative 2 and at least $20 million per year higher than under Alternative 3. The advantage of this policy is that by avoiding debt it reduces considerably the risk of being in debt should the federal government decide in the future to charge interest on loans from the FUA.

ALTERNATIVE 2: MODERATE BORROWING

This alternative would supplement state tax financing with loans from the federal government. The state laws would be adjusted to leave the fund in debt from 20 to 30 percent of the time. Unemployment compensation tax laws would be modified whenever a deficit becomes or is forecast to become large. More than any of the other alternatives, Alternative 2 requires considerable reliance on fund forecasting for determining when a law change is necessary. The recommendations in Chapter One concerning MDES's fund forecasts become particularly important, if Alternative 2 is adopted.

A possible means of implementing Alternative 2 is by indexing the tax base, while changing the minimum tax rate schedule only when a large deficit is forecast. Specifically, the tax base could be indexed starting in 1980. Changes in the current minimum tax rate schedule should be made if large future deficits are forecast at any time between now and 1980. The tax base in a given year would be set equal to a fixed percentage of the average annual wage in the second previous year. Floating the tax base in this way helps the fund to recover more quickly should a recession occur, thus avoiding large deficits.

It is desirable to avoid both "large" deficits and "large" surpluses. Large deficits are risky because of the chance that the federal law regarding interest-free loans may be changed in the future. Large surpluses are costly in that they require relatively large taxation on employers.

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[12]There are, of course, more than just three possible means of financing the payment of benefits. Alternative 1 results in little or no debt. Alternative 3 results in considerable debt. Numerous possibilities exist between these two extremes. Alternative 2 is one such possibility.

If a debt or surplus greater than one percent of the total wages in covered employment accumulates, the Legislature should consider action to keep the debt or surplus from rising. An increasing debt could be prevented by some combination of raising the tax base, adjusting the minimum tax rate schedule, or raising the maximum tax rate. It may not always be necessary to make law changes when the surplus is becoming large. In an inflationary economy, a minimum tax rate schedule like the one currently in use effectively keeps a surplus from growing large.

ALTERNATIVE 3: CONSIDERABLE BORROWING

Alternative 3 involves financing the unemployment compensation system partially through state taxes and partially through through interest-free federal loans later resulting in additional federal taxes to repay the loans. This policy could be implemented by maintaining the current minimum tax rate schedule and by either raising the tax base occasionally or indexing the tax base. The state fund would be in debt at least fifty percent of the time.[13] Large deficits would occur at times.

This alternative has the major advantage of low overall unemployment compensation taxes on employers. The disadvantage is the high risk of being deep in debt if and when the federal government begins to charge interest on loans.

CONCLUSION

One objective in financing the unemployment compensation system is to keep the taxes on Minnesota employers as low as possible to pay a given level of benefits. Borrowing interest-free funds from the FUA is a means of reducing these taxes. A second objective is to reduce the risk of being deep in debt should the federal government decide in the future to charge interest on loans from the FUA. Less borrowing with greater resultant taxation is a means of meeting this objective. Obviously these objectives conflict.

If the Legislature wishes to avoid any borrowing of federal funds, then Alternative 1 should be selected. Under current federal laws permitting interest-free loans, Alternative 1 would, however, result in greater taxation of Minnesota employers than any of the other alternatives. Alternative 3 would result in the lowest taxation, but in the greatest risk of being deep in debt should the federal government decide to charge interest on loans. Alternative 2 involves a moderate degree of borrowing, resulting in greater taxation than Alternative 3 but significantly less than Alternative 1. Given current federal law, Alternative 2 could be an appropriate compromise among these alternative means of funding the unemployment compensation system.

The above observations are valid given that FUA loans are currently interest-free. With interest-free loans, Minnesota employers pay lower total taxes if the state fund goes into debt and borrows federal money. However, once the federal government decides to charge an interest rate of about five percent or more (if it ever does), this conclusion would change. With an appropriately high interest rate on FUA loans, Minnesota employers would pay lower total taxes if the state fund avoids debt and the resulting interest charges. Thus, at the time (if ever) that interest begins to be charged on outstanding loans, Alternative 1 would become the appropriate means of funding the unemployment compensation system because it avoids most debt.

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[13]The computer results reported earlier in this chapter indicate the fund would be in debt 52.5 percent of the time, if the current minimum tax rate schedule were maintained and the tax base were indexed. Alternative 3 would result in debt occurring at least 52.5 percent of the time.

APPENDIX A

MINNESOTA UNEMPLOYMENT COMPENSATION LAW

The basic provisions of Minnesota unemployment compensation law (Minn. Stat. 268) are summarized below. Our primary concern is with those provisions which significantly affect the size and variability of the state unemployment compensation fund. The areas of benefit eligibility, benefit amount, and benefit duration are discussed first. We then cover the calculation of each "insured" employer's state unemployment compensation tax liability.

BENEFITS

An unemployed person must meet certain eligibility requirements in order to receive unemployment compensation benefits. In the last 52 calendar weeks, a claimant must have earned $50 or more from one or more "insured" employers in each of 15 weeks to qualify. In general, an employer is "insured" (or "covered") if he has had one or more individuals employed in each of 20 different weeks or has paid $1,500 or more for services in employment in any calendar quarter within the current or preceding calendar year. Certain occupations are either excluded from coverage by the law or, like agricultural labor, are subject to different coverage requirements. Insured employers pay a state unemployment compensation tax.

Persons who voluntarily quit their employment without good cause attributable to the employer or lose their job for ordinary misconduct are disqualified from receiving benefits until they have been re-employed in insured work and earned wages equal to at least four times their weekly benefit amount. Gross misconduct discharges also require this requalification period before benefits can be received. In addition, part or all of the wages earned with the employer may be disregarded for the purposes of determining eligibility and calculating the benefit amount.

An eligible claimant receives a weekly benefit amount for a period of time. Both the amount and duration of benefits depend on the claimant's previous employment experience. The weekly benefit amount depends on the individual's average weekly wage earned in insured work during the 52 weeks previous to the benefit claim. One's average weekly wage is the sum of such wages earned divided by the number of weeks ("credit weeks") in which $50 or more was earned in that period. The weekly benefit amount is equal to 60 percent of the first $85, 40 percent of the next $85, and 50 percent of the remainder of the individual's average weekly wage, subject to a maximum.

Minnesota law provides that the maximum weekly benefit amount for the period July 1977-June 1978 be equal to 62 percent of the statewide average weekly wage earned in insured employment in calendar year 1976. The maximum from July 1978 to June 1979 will be 64 percent of the 1977 average weekly wage. For July 1979 to June 1980 and subsequent periods, the maximum weekly benefit amount will be 66.67 percent of the previous calendar year's average weekly wage. The maximum is rounded to the nearest dollar. For the July 1977-June 1978 period, the maximum is $122.

The duration of regular benefits depends on the number of credit weeks the claimant has accumulated. Benefits are paid for 70 percent of the credit weeks, up to a maximum duration. The maximum duration of regular benefits is 26 weeks. Since a claimant must have 15 credit weeks to qualify, the minimum duration is 11 weeks.

A recipient of regular benefits can receive extended benefits when the regular benefits are exhausted if the United States or Minnesota insured unemployment rate is high enough.[1,2] Half the cost of these extended benefits is paid by the federal government. The other half is financed by the state unemployment compensation fund. The weekly benefit amount is the same for extended benefits as for regular benefits. Extended benefits are paid for 50 percent of the duration of regular benefits. The maximum duration of extended benefits is therefore 13 weeks. The Federal Supplemental Benefits program has provided a maximum additional 26 weeks of benefits to extended benefits exhaustees. The FSB program, financed entirely by the federal government, is only a temporary feature of the unemployment compensation system.

TAXES

A state tax on insured employers finances the payment of all regular benefits and half of the extended benefits. Each employer pays taxes on a portion of his/her total payroll. In 1977, only the first $7,000 of wages paid to each employee by each employer was taxable. This amount, called the tax base, increases to $7,500 in 1978 and $8,000 in 1979. If an employee earns more than the current tax base of $7,500, the employer only pays taxes on the first $7,500. The employer pays taxes on the employee's entire earnings if such earnings are less than $7,500.

The insured employer pays a tax equal to total payroll times his/her assigned tax rate. This tax rate is equal to the minimum tax rate plus the employer's experience ratio. The minimum tax rate is common to all employers and depends on the size of the state unemployment compensation fund on June 30 of the preceding calendar year. Employers may be assigned different experience ratios, depending on the unemployment compensation benefits received by their employees. No employer's assigned experience ratio can jump more than 1.5 percentage points per year. The overall tax rate cannot exceed 7.5 percent.

The minimum tax rate for a given year is set according to the dollar balance in the state fund (excluding any federal loans to the fund) at the end of June in the previous year. The schedule of rates assigns a higher minimum tax rate for a lower fund balance. If the fund was in debt or had a surplus under $80 million, then the minimum tax rate is 1.0 percent. A fund balance of more than $80 million results in a lower minimum tax rate. A rate of 0.1 percent accompanies any fund balance of $200 million or more. Table A-1 summarizes the current minimum tax rate schedule. The minimum tax rate for 1977 was 1.0 percent and will remain there for 1978.

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[1] *The insured unemployment rate (IUR) measures the average weekly number of individuals filing unemployment claims as a percentage of average employment. By comparison, the compensable unemployment rate (CUR), relevant for estimating future benefits, measures the average weekly number of individuals actually receiving unemployment compensation benefits as a percentage of average employment.*

[2] *Extended benefits will be paid in the state if either the "national indicator" or the "state indicator" is on. No extended benefits are paid if both indicators are off. The national indicator is on for a week if the average United States IUR for that week and the preceding 12 weeks is equal to or greater than 4.5 percent. The state indicator is on for a week in which the average state IUR for that week and the preceding 12 weeks is 5.0 percent or more, or is 4.0 percent or more and at least 120 percent of the average state IUR for the same 13 week period in the two preceding calendar years.*

TABLE A-1
CURRENT MINIMUM TAX RATE SCHEDULE

Fund Balance*	Minimum Tax Rate
Below $80 Million	1.0%
Between $80 and $90 Million	0.9
Between $90 and $110 Million	0.8
Between $110 and $130 Million	0.7
Between $130 and $150 Million	0.6
Between $150 and $170 Million	0.5
Between $170 and $200 Million	0.3
Above $200 Million	0.1

*Balance at the end of June of the previous year.

For each year, the Commissioner of Economic Security assigns an experience ratio to each employer. The ratio is higher the greater the "chargeable" benefits received by that employer's employees over a previous three year period. Benefits chargeable to an employer are those benefits received by past employees based on their work experience with that employer. The experience ratio equals the quotient obtained by dividing 1¼ times the employer's chargeable benefits over a three year period by the employer's total taxable payroll for the same period. The three year period includes the 36 consecutive calendar months immediately preceding July 1 of the preceding calendar year. Any portion of taxable payroll on which taxes have not been paid by July 31 of the preceding year is excluded in the above calculation. The resulting experience ratio is rounded to the nearest 0.1 percent.

Certain employers may not pay the unemployment compensation tax, although their employees may collect benefits. Public employers reimburse the state fund for the amount of regular benefits and one-half of the extended benefits paid to their employees.[3] Beginning January 1, 1978, federal law will require that state and local governments be provided the option of paying taxes instead of using the reimbursement method. Since reimbursement is generally less costly than taxes for organizations with low unemployment rates, most public employers are likely to continue with reimbursement. Nonprofit organizations currently have the option of electing reimbursement or taxation.

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[3] For weeks of unemployment beginning after January 1, 1979, public employers will reimburse the state fund for the amount of regular benefits and all of the extended benefits paid to their employees.

APPENDIX B
BASIC FORECASTING METHODOLOGY

In this appendix, we present the basic equations used to estimate annual benefits and tax revenues. These equations are applicable for those insured employers who pay the unemployment compensation tax and their employees. Public employers and others who reimburse the state fund for the full amount of benefits collected by their employees are excluded from these forecasts. Since these reimbursables have very low unemployment rates and fully repay the benefits collected by their employees, their impact on the unemployment compensation fund is quite minor.

BENEFITS

The equation for calculating annual regular benefit payments is:

$$\text{BENEFITS} = \text{CUR} \times \text{AWBA} \times \text{E} \times 52$$

where:

CUR = Minnesota compensable unemployment rate (excluding reimbursables)

AWBA = Minnesota average weekly benefit amount

E   = Covered employment in Minnesota (excluding reimbursables)

If extended benefits are paid for a full year, the above amount of regular benefits can be increased by about 12 percent to estimate the total benefits paid by the state. We assume extended benefits are paid for a full year in which the Minnesota compensable unemployment rate is 3.0 percent or higher.

The annual compensable unemployment rate (CUR) is the ratio of total weeks of benefits paid to total weeks of employment in Minnesota in one year. Future Minnesota CUR's depend mainly on the national economy. To forecast future CUR's, economic assumptions about future United States unemployment rates are made, and the CUR's are derived from these U.S. rates by using an historical relationship between them. Significant changes in benefit eligibility, amount, or duration can effect this relationship. Recent law changes in these areas have necessitated such an adjustment to this historical relationship.

The statewide average weekly benefit amount (AWBA) is the average of the weekly benefit amounts received by all claimants in the state. The AWBA depends primarily on the formula used to compute each claimant's weekly benefit amount, the maximum weekly benefit amount, the number of claimants earning various wages, and the statewide average weekly wage. To a large extent, the AWBA is "indexed" for wage inflation (or deflation). The AWBA will increase over time at a rate only slightly less than the inflation rate for the statewide average weekly wage.

The number of covered full-time equivalent employees (E) times 52 is the total number of weeks worked annually in insured employment, excluding reimbursables. The amount of covered employment is affected by changes in state and federal coverage requirements and by general economic and demographic trends.

TAX REVENUES

The equation for calculating annual tax revenues is:

$$\text{TAXES} = \left(\frac{\text{Taxable Wages}}{\text{Total Wages}} \right) \times (\text{AWW} \times \text{E} \times 52) \times (\text{MinTR} + \text{AER})$$

where:

AWW = Average weekly wage

E = Covered employment (excluding reimbursables)

MinTR = Minimum tax rate

AER = Average experience ratio.

The product, AWW x E x 52, equals total wages paid in covered employment. When it is multiplied by the ratio (Taxable wages/Total wages), the result is taxable wages. To obtain tax revenues, taxable wages are multiplied by the average tax rate (ATR) in Minnesota. The ATR is the sum of the minimum tax rate (MinTR) and the average experience ratio (AER) for Minnesota employers. The minimum tax rate in a given year depends by law on the fund balance on June 30 of the previous year. Table A-1 illustrated the minimum tax rate schedule.

Estimation of the AER is now based on the historical relationship between the AER in a given year and Minnesota's benefit to taxable wage ratio for a previous three year period. The primary reason for using such a relationship is that each employer's experience ratio is similarly computed. Virtually all tax and benefit provisions of the law and all economic assumptions affect the AER. Past CUR's certainly play a major role. In particular, high CUR's in the previous three years produce a relatively high AER.

The taxable wages to total wages ratio depends historically on the ratio between the tax base (TB) and the average annual wage (AAW). The AAW equals 52 times the AWW. A higher tax base results in a greater tax base to AAW ratio than would otherwise occur and thus a higher taxable wages to total wages ratio. Increased taxable wages are the result.

Wage inflation, without a change in the tax base, is an increase in the AWW and causes total wages to increase. The taxable wages to total wages ratio falls, however. The net result is that taxable wages increase but at a rate equal to only about 25 percent of the inflation rate. Tax revenues thus also increase at about one-fourth the inflation rate. Taxes, unlike benefits, are not strongly indexed for inflation. Under current law, a six percent inflation rate causes an increase of five to six percent in benefits, but an increase in taxes of only about 1.5 percent.

FUND BALANCES

The estimated fund balance (excluding any federal loans) at the end of the calendar year is equal to the fund balance at the end of the previous year plus the current year's Minnesota tax revenues plus any additional federal tax levied last year to pay off a federal loan minus the benefits paid by Minnesota in the current year.[1] If the fund has a surplus, this estimated balance is approximately equivalent to the actual surplus. Since taxes for the last quarter of any calendar year are not due until January 31 of the next year, the actual end of year surplus will tend to be slightly lower than this estimate. If the fund is in debt and has borrowed from the Federal Unemployment Account (FUA), this estimated balance is called the "net deficit" and is approximately equal to the actual fund balance minus the amount of the loans. The actual fund balance will always need to be positive (a surplus) in order to pay benefits in the present and near future.

Quarterly fund balances can be estimated rather easily. It is also particularly important to estimate the fund balance for November 10 of a year in which the fund is in debt. The balance on that date determines whether an additional federal tax will be levied that year to pay back a federal loan. Chapter III discusses the procedures for obtaining and repaying a federal loan to the state fund.

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[1]*While there are actually three separate fund accounts (clearing, benefit, and unemployment trust fund accounts), we treat them as one consolidated account in estimating a fund balance.*

APPENDIX C
AGENCY RESPONSE

NOTE: The minor technical changes mentioned on page 1 of the Agency's comments have been incorporated in this report. A section entitled "Tax Burden on Different Types of Employers" in Chapter Two was added to the report subsequent to receipt of the Agency's response.

Minnesota Department of Employment Services

390 NORTH ROBERT STREET ● SAINT PAUL, MINNESOTA 55101

February 1, 1978

Mr. Bruce Spitz
Deputy Legislative Auditor
Legislative Audit Commission
Veterans Service Building
St. Paul, MN 55155

Dear Mr. Spitz:

Thank you for the opportunity to comment on your final report of the program evaluation of the Minnesota unemployment insurance system forecasting procedures and funding alternatives.

The Department of Economic Security commends your staff on the quality of the evaluation. Your recommendations are reasonable and acceptable.

We would like to add a few technical corrections that have no significant impact on considerations as well as a few comments about the findings and recommendations in the report.

Technical Corrections

The December 6, 1977, Federal Register includes the latest revision of the Secretary's requirements for waiver of the tax credit reduction due to outstanding federal loans. Although the requirements are slightly different from those explained on page III-7, Minnesota still expects to meet the requirements.

The extended benefits "state indicator" has been changed by virtue of P.L. 94-566 to 5.0 percent or more, or 4.0 percent or more if that is 120 percent higher than for the same 13 week period in the two preceding calendar years. The footnote on A-3 reflects the former law.

Chapter I - Comments

The report recommends funding a computer terminal and computing time for forecasting purposes at an estimated cost of $3,700 for the first year and $1,400 in each succeeding year. Department of Economic Security staff would like to discuss this proposal with your staff and if the required resources are as estimated, the Unemployment Insurance Division will fund the Research and Planning

Branch accordingly. If additional costs would be involved, we
would attempt to secure the additional required resources.

The report recommends estimating benefit and tax revenue based
on an average unemployment rate between 6.0 and 7.0 percent. We
agree that this would be more realistic over the next eight years
as the "likely" case and agree to add such a figure to our esti-
mate tables. However, we also believe it is important to continue
to estimate the consequences under more "optimistic" and more
"pessimistic" conditions to alert the decision-makers to what
could happen if the "likely" case does not occur. In Department
presentations before the 1976 and 1977 legislative committees, it
was stressed that the actual case would likely fall between the
two estimates shown but that the tables were designed to show the
range of possibilities with the proposed changes and the current
law. Continuing to use the recommended rate as well as our "opti-
mistic" and "pessimistic" figures allows the legislature to decide
which risks it is willing and is not willing to take.

The Department will continue to urge an increasing tax base for long
term funding. The decision to recommend specific dollar figures of
approximately 70 percent of the second preceding year's average
annual wage in the 1977 legislation was to allow the Department to
develop a data base on the costs and benefits of the myriad changes
to the law before recommending a permanent formula. We welcome your
recommendation in this area.

Chapter II - Comments

The increase in the minimum tax in 1977 did not change the schedule
of fund ratio levels below the 1.0 percent rate because it was not
realistic to assume that the fund (not counting federal loans)
would reach a $90 million surplus prior to 1979 when the legislature
was (is) expected to consider the entire funding question after
actual experience with the new law. Whenever the alternative is
available, the Department feels increase of the tax base would be
preferable to an increase in the minimum tax because higher wage
employers are taxed on only a portion of the wages useable for
benefit purposes while lower wage employers are taxed on their
entire payroll. Thus, a 4.0 percent unemployment tax rate may be
effectively only a 2.0 percent payroll tax for the higher wage em-
ployer whose employees collect benefits based on more wages than
the employer has "insured".

Chapter III - Comments

Another consideration in evaluating "Alternative 1: Little or no
borrowing" is the level of taxing that would be required compared
to the taxing in other states. Historically, Minnesota has been
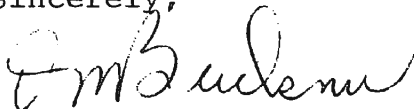at or below the national average unemployment tax rate based on

total covered wages (rather than taxable wages). Funding at this
level without Federal action to force other states to do the same
could put Minnesota at a severe economic disadvantage. If new
federal solvency requirements are added, this disadvantage would
lessen or disapper.

"Alternative 2: Moderate Borrowing" offers good flexibility to the
financing of unemployment benefits. The most difficult decision
will be setting appropriate ratios so that the minimum tax would
not decline too severely and quickly, resulting in a tax increase
during a recession to restore the fund level.

"Alternative 3: Considerable borrowing" should be avoided. The
element of risk is too high. The mere prospect that the state
might try drastic action at any time to correct the situation due
to unforeseen circumstances could be as detrimental as a very high
tax rate for business planners. In addition, the idea of charging
interest rates on federal loans to the states already has been pro-
posed in at least one federal bill and the idea could get serious
consideration at a future date.

In conclusion, I believe the program evaluation has been a service
both to the Legislature and to the Department and will allow de-
cisions to be made in a comfortable atmosphere in the future.

Sincerely,

Donald M. Buckner
Deputy Commissioner
(For Commissioner Michael C. O'Donnell)

REPORTS OF THE
LEGISLATIVE AUDIT COMMISSION
PROGRAM EVALUATION DIVISION

1. *Regulation and Control of Human Service Facilities,* February 17, 1977.*

2. *Minnesota Housing Finance Agency,* April 19, 1977.

3. *Federal Aids Coordination,* September 2, 1977.

4. *Unemployment Compensation,* February 24, 1978.

5. *State Board of Investment: Investment Performance,* February 24, 1978.

6. *Department of Personnel,* in printing.

7. *Department of Revenue: Assessment/Sales Ratio Studies,* in printing.

8. *Liquor Control,* in printing.

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*out of print

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