AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search
http://ageconsearch.umn.edu
aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

AE 96004

March 26, 1996

IMPACTS OF THE ARMEY AND SHELBY FLAT TAX PROPOSAL ON NORTH DAKOTA REPRESENTATIVE FARMS

Marvin Duncan
Won W. Koo
Richard D. Taylor

Department of Agricultural Economics • Agricultural Experiment Station
North Dakota State University • Fargo, ND 58105-5636

Table of Contents

List of Tables ii

List of Figures iii

Highlights iv

Introduction 1

Summary of the Armey-Shelby Flat Tax Bill 1

Methodology 2

Results 5
- Size of Farms 8
- Profitability of Farms 10
- Social Security Taxes 14
- Total Tax Liability 18

Concluding Remarks and Implications 18

List of Tables

Table		Page
1	Characteristics of Representative Farms in North Dakota, 1994	2
2	Example of Income Tax Calculation Under Both the Current Tax Code and 17% Flat Tax for the Medium Size Representative Farm	5
3	Net Farm Income for Tax Calculation Under Current Tax Code for Various Representative Farms	6
4	Net Farm Income for Tax Calculation Under Flat Tax Proposal for Various Representative Farms	6
5	Taxable Net Income for Current Tax Calculation for the Various Representative Farms	7
6	Taxable Net Income for Flat Tax Calculation for the Various Representative Farms	7
7	Income Tax Liability for the Various Size Representative Farms Under the Current Tax Code, the 17% Flat Tax, and the 20.8% Flat Tax	8
8	Increases in Tax Liability by Farm Size, as Compared to the Current Tax Code, Over the Forecast Period, 1996-2003	10
9	Income Tax Liability for the Various Profit Representative Farms Under the Current Tax Code, the 17% Flat Tax, and the 20.8% Flat Tax	13
10	Increases in Tax Liability by Farm Profitability, as Compared to the Current Tax Code, Over the Forecast Period, 1996-2003	14
11	Social Security Liability Under the Current Tax Code for Various Representative Farms	17
12	Social Security Liability Under the Flat Tax Proposal for Various Representative Farms	17
13	Additional Social Security Liability Under the Flat Tax Proposal for the Various Representative Farms	17
14	Increases in Federal Income Tax and Social Security Tax Liability as Compared to the Current Tax Code for the Forecast Period, 1996-2003	18

List of Figures

No.		Page
1	Federal Income Tax for North Dakota Large Size Representative Farm	9
2	Federal Income Tax for North Dakota Medium Size Representative Farm	11
3	Federal Income Tax for North Dakota Small Size Representative Farm	12
4	Federal Income Tax for North Dakota High Profit Representative Farm	15
5	Federal Income Tax for North Dakota Average Profit Representative Farm	16
6	Federal Income Tax Liability Under Various Taxable Incomes and Tax Proposals	19
7	Differences in Federal Income Tax and Social Security Tax Liability Between the Current Tax Code and the Flat Tax Proposals for Representative Farms by Profitability, Over the Forecast Period, 1996-2003	20
8	Differences in Federal Income Tax and Social Security Tax Liability Between the Current Tax Code and the Flat Tax Proposals for Representative Farms by Size, Over the Forecast Period, 1996-2003	21

Highlights

* *Under the flat tax proposals, depreciation is no longer allowed. Current capital purchases are expensed the year of purchase up to the level of net farm income. All interest paid by producers is no longer deductible as a business expense.*

* *The tax liability for the large size representative farm and for the high profit representative farm under the 17% flat tax proposal is less than under the current tax code.*

* *The tax liability for all other representative farms is greater under the 17% flat tax than under the current tax code.*

* *The tax liability for all representative farms is greater under the 20.8% flat tax than under the current tax code.*

* *The social security tax liability is greater for all the representative farms, except for the large size and high profit farms, under the flat tax because net farm income used to calculate tax under the flat tax is higher than under the current tax code. The large size and high profit representative farms already pay the maximum social security tax.*

* *Tax liabilities under the flat tax proposals over the forecast period are higher for all representative farms except for the high profit and large size representative farm under the 17% flat tax; those farms experience lower taxes under the flat tax system. The average profit and medium size representative farms have the largest increases in tax burden under the flat tax proposals.*

* *Introduction of a flat tax, such as the one analyzed in this report, would probably cause farmers to move toward increased rental of farm land and increased leasing of farm equipment, instead of purchases that use debt financing.*

Impacts of the Armey and Shelby Flat Tax Proposal on North Dakota Representative Farms

Marvin Duncan, Won W. Koo, and Richard Taylor*

Introduction

In recent months, members of the U.S. Congress have discussed various flat tax proposals to simplify the U.S. Tax Code. On July 19, 1995, Representative Richard Armey and Senator Richard Shelby introduced a flat tax proposal as H.R. 2060 and S. 1050, "The Freedom and Fairness Restoration Act".

A 17% flat tax is not revenue-neutral. A 17% flat tax would result in a $138.3 billion loss of federal government revenue (Office of Tax Analysis, U.S. Treasury Department) . It is estimated that a flat tax rate of 20.8% would be required to generate tax revenues equal to those of the current tax code.

The objective of this study was to evaluate the impacts of the 17% flat tax of H.R. 2060 and S. 1050 and a 20.8% flat tax rate under the same tax provisions, when compared to the current income tax code, on North Dakota Representative Farms. Tax liabilities for representative farms are forecast for the 1996-2003 period.

Summary of the Armey-Shelby Flat Tax Bill

The Armey-Shelby proposal would replace the current individual and corporate income taxes and the estate and gift taxes with a flat-rate tax. The flat tax proposal includes three major parts; a flat 17% rate on wage and pension distribution, a flat 17% tax on net taxable income of businesses, and a standard deduction for all filers ($10,700 for single filers, $21,400 for joint filers, and $14,000 for head-of-household filers,) with an additional standard deduction for each dependent ($5,000).

All interest paid would no longer be a deductible business expense under the flat tax proposal. This includes interest on inputs, machinery, and land. Depreciation is no longer deductible as a business expense under the Armey-Shelby flat tax proposal, but new capital purchases are expensed fully in the purchase year. If the capital purchases exceed taxable income, the balance can be carried forward for an unlimited number of years. An interest rate equal to the U.S. Treasury 3 month bill rate is added to the carryover of capital purchases for each year.

---

*Duncan and Koo are professors and Taylor is a research associate in the Department of Agricultural Economics at North Dakota State University, Fargo.

Methodology

This analysis is based on the North Dakota Representative Farm Model which uses the Food and Agricultural Policy Research Institute (FAPRI) projections as an input. The representative farms are developed from those farms participating in the North Dakota Farm and Ranch Business Management Association farm records program. The model has six representative farms, three farms designated by level of profit and three farms designated by size. Table 1 shows the characteristics of the representative farms. Farm sizes for representative farms range from over 2,000 acres for the large size farm to 475 acres for the small size farm. The size of the high profit farm is 1,600 acres while the size of the low profit farm is about 1,000 acres.

Table 1 Characteristics of Representative Farms in North Dakota, 1994

	Size			Profit		
	Large	Medium	Small	High	Average	Low
	acres					
Total cropland	2358	1182	475	1636	1200	995
Spring Wheat	1043	489	201	742	544	449
Durum Wheat	352	182	88	131	90	54
Barley	245	152	57	221	165	140
Corn	50	44	25	42	33	42
Sunflowers	193	91	27	88	66	56
Soybeans	118	61	13	90	70	84

The large, medium, and small size representative farms were developed from the North Dakota Farm and Ranch Business Management Annual Reports for 1994, while the high, average, and low profit representative farms were developed from the same reports for 1993. The large farm represented the average of the top 25% of the farms measured by acreage. The small farm represented the average of the bottom 25% of the farms. The medium farm represented the average of the middle 50% of the farms. The high profit farm represented the average of the top 20% of the farms measured by profits. The low profit farm represented the average of the bottom 20% of the farms, and the average profit farm represented the average of the entire group. Although these two farm classifications are based on the same data base, they are not highly correlated with each other. For example, the high profit representative farm is not necessarily comparable to the large size representative farm.

The net farm income for representative farms was calculated on the basis of the following assumptions:

1. Farm income from the production of hard red spring wheat, durum wheat, corn, barley, soybeans and sunflowers are forecast in the model.

2. Net farm income from livestock operations and production of other crops, including potatoes and canola, remained constant during the period.

3. All farm enterprises in size and operation remained constant during the period.

4. Inventory changes, accounts receivable, accounts payable, and prepaid expenses and supplies were constant from year to year.

5. All farms had the same crop mix and received the same price for commodities.

6. Yield differentials that existed in 1993 continued throughout the forecast period for high, average, and low profit farms and yield differentials that existed in 1994 continue throughout the forecast period for large, medium, and small size farms.

Tax liabilities for representative farms were calculated under the current tax code and the two different flat tax proposal rates (17% and 20.8%). Assumptions used to calculate tax liability under the alternative tax proposals were:

1. Current tax laws (1995), exemptions, and tax rates remained constant for the forecast period, 1996-2003.

2. Flat tax rates of 17% or 20.8% remained constant throughout the forecast period.

3. Nonfarm income was earned by the farm operator's spouse.

4. Social Security laws remained constant under the flat tax proposal.

5. Capital purchases increased 3% each year.

6. The standard deduction is calculated on the basis of a married couple and two dependents for each representative farm.

Depreciation under the current tax code was calculated by expensing in the year of purchase up to $17,500 of net current capital purchases. The net balance of capital purchases was added to the next year's beginning inventory balance, as listed in the balance sheet. The total inventory was depreciated over a 7-year period for machinery and equipment and 15 years for buildings and improvements.

For the flat tax proposals, all capital purchases (equipment, machinery, buildings, and improvements) were expensed in the year of purchase up to the amount of taxable income. Capital purchase balances in excess of taxable income in the year of purchase were carried forward into subsequent years.

Net farm income for the representative farms under the current tax code was calculated by subtracting all operating expenses, including depreciation and interest payments from gross farm income. However, net farm income under the flat tax did not include depreciation and interest payments as an operating expense.

To establish the income tax baseline, federal income tax was calculated from net farm income and nonfarm income using the 1995 tax code. The standard deduction of $6,550 and four dependent exemptions per return were used to calculate federal taxable income. Income tax liabilities were calculated for the six representative farms, using the 1995 tax code for the forecast period, 1996-2003.

The taxable income for the flat tax was calculated from the sum of net farm income and nonfarm-farm income after subtracting the allowed standard deduction and value of exemptions, with the interest paid added back to net farm income, because interest is not deductible under the flat tax proposals. Tax liabilities were then calculated for the representative farms by applying the flat tax rates to the taxable income for the forecast period, 1996-2003.

Social Security taxes were calculated using the 1995 tax code for both the base line and flat tax proposals.

Table 2 shows an example of the income tax calculation under both the current tax code and the 17% Flat tax for a medium size representative farm. Gross farm income is the same for both calculations but operating expenses are greater for the current tax code because interest paid is not a deductible business expense under the flat tax proposal. Depreciation allowed for the current tax code was greater than the capital expense for the flat tax mainly because existing assets were depreciated over a seven year period for machinery and equipment and 15 years for buildings and improvements. The first $17,500 of net new purchases were expensed in the year of purchase. The remaining balance was depreciated over seven years for machinery and equipment and 15 years for buildings and improvements. Depreciation allowed was greater than net new purchases so the depreciation basis fell each year. Net farm income under the flat tax proposal was larger than that under the current tax code, therefore social security tax was larger under the flat tax proposal.

Nonfarm income was the same under both the current tax code and the flat tax proposal. One half of the social security tax was deductible under the current tax code while it is not deductible under the flat tax proposal. Adjusted gross income under the flat tax proposal was larger than that under the current tax code. The standard deduction under the flat tax is larger than under the current tax code. Under the current tax code the value of the exemptions is determined by multiplying the four exemptions by $2,500 to obtain the $10,000 deduction. Under the flat tax proposal the value of the exemptions were determined by multiplying the two exemptions by $5,000 to obtain the $10,000 deduction. The husband and wife exemption was included in their standard deduction under the flat tax proposal. Taxable income under the flat tax proposal was larger than that under the current tax code. Both the income tax and social security tax liability under the flat tax proposal were larger than under the current tax code.

Table 2. Example of Income Tax Calculation Under Both the Current Tax Code and 17% Flat Tax for the Medium Size Representative Farm

	Current	17% Flat
	-----dollars-----	
Gross Farm Income	303,521	303,521
Operating Expense	216,010	202,498
Depreciation	33,627	0
Capital Expense	0	24,753
Net Farm Income	53,884	76,270
Nonfarm Income	11,168	11,168
Social Security Deduction	4,122	0
Adjusted Gross Income	60,930	87,438
Standard Deduction	6,550	21,400
Exemptions	10,000	10,000
Taxable Income	44,380	56,038
Income Tax	7,355	9,526
Social Security Tax	8,244	9,364
Total Tax Liability	15,599	18,890

Results

Tables 3 and 4 show the net farm income for tax calculation under both the current tax code and the flat tax proposals. Net farm income for tax calculation was larger under the flat tax proposal than under the current tax code for the following reasons: (1) interest paid was not deductible under the flat tax proposals and (2) depreciation allowed under the current tax code was larger than the capital expenditures allowed under the flat tax proposal. Taxable income was calculated from net farm income by adding nonfarm-farm income and subtracting the allowed standard deduction and value of exemptions. Tables 5 and 6 show the taxable net income for large, medium, and small size representative farms and for high, average, and low profit representative farms. Taxable net income under the flat tax proposals was larger than under the current tax code because interest was not deductible as an expense under the flat tax proposal. The difference in taxable net income under the current tax code and the flat tax proposals narrowed later in the forecast period because depreciation allowed under the current tax code fell while capital expenditures rose.

Table 3. Net Farm Income for Tax Calculation Under Current Tax Code for Various Representative Farms

	Size			Profit		
	Large	Medium	Small	High	Average	Low
	dollars					
1996	93,030	53,884	22,075	67,352	36,627	-14,431
1997	86,764	52,228	22,254	69,928	38,500	-12,581
1998	81,460	50,964	22,188	69,554	39,200	-12,337
1999	77,446	50,172	22,130	69,458	39,955	-12,474
2000	80,006	52,330	23,225	70,230	41,743	-11,501
2001	82,784	54,586	24,344	72,681	43,739	-10,172
2002	83,250	55,593	24,535	73,519	44,806	-10,203
2003	86,461	57,788	25,276	74,808	46,211	-9,510

Table 4. Net Farm Income for Tax Calculation Under Flat Tax Proposal for Various Representative Farms.

	Size			Profit		
	Large	Medium	Small	High	Average	Low
	dollars					
1996	119,346	76,270	40,552	86,668	58,081	7,665
1997	111,548	72,721	38,800	87,367	57,396	6,628
1998	104,682	69,598	36,928	85,102	55,639	4,170
1999	99,074	66,979	35,181	83,100	54,034	1,500
2000	100,008	67,339	34,692	81,949	53,548	94
2001	101,124	67,823	34,324	82,458	53,352	-815
2002	99,892	67,081	33,115	81,335	52,301	-2,958
2003	101,369	67,549	32,534	80,643	51,656	-4,262

Table 5. Taxable Net Income for Current Tax Calculation for the Various Representative Farms

	Size			Profit		
	Large	Medium	Small	High	Average	Low
	dollars					
1996	86,219	44,380	18,413	54,965	28,980	-14,472
1997	79,744	43,186	19,016	57,806	31,061	-12,126
1998	74,442	42,363	19,405	57,705	32,069	-11,372
1999	70,642	41,987	19,815	57,891	33,139	-10,984
2000	73,830	44,347	21,304	58,953	35,173	-9,470
2001	77,247	46,807	22,830	61,702	37,412	-7,583
2002	78,365	48,126	23,514	62,847	38,805	-7,040
2003	82,243	50,553	24,720	64,454	40,521	-5,756

Table 6. Taxable Net Income for Flat Tax Calculation for the Various Representative Farms

	Size			Profit		
	Large	Medium	Small	High	Average	Low
	dollars					
1996	100,967	56,038	23,730	64,113	38,386	-7,226
1997	93,560	52,824	22,414	65,077	38,052	-7,767
1998	87,096	50,046	20,993	63,085	36,657	-9,715
1999	81,903	47,783	19,709	61,365	35,424	-11,859
2000	83,263	48,509	19,698	60,503	35,322	-12,724
2001	84,819	49,370	19,822	61,311	35,521	-13,076
2002	84,039	49,016	19,120	60,496	34,878	-14,645
2003	85,983	49,884	19,062	60,120	34,651	-15,357

Size of Farm

Table 7 shows the projected income tax liability for large, medium, and small size representative farms. The large size representative farm benefited under the 17% flat tax proposal, but under the 20.8% flat tax proposal, the tax liability increased (Figure 1). For 1996, the tax liability for the large size representative farm under the 17% flat tax proposal was $2,009 less than that under the current tax code and $1,928 higher under the 20.8% flat tax proposal. The medium size representative farm owed $2,171 more in taxes under the 17% flat tax and $4,301 more under the 20.8% flat tax proposal. The small size representative farm owed $1,270 more under the 17% flat tax in 1996 than under the current tax code and $2,172 more under the 20.8% flat tax proposal.

Table 7. Income Tax Liability for the Various Size Representative Farms Under the Current Tax Code, the 17% Flat Tax, and the 20.8% Flat Tax

	Large	Medium	Small
	----------dollars----------		
Current			
1996	19,073	7,355	2,764
1997	17,253	7,019	2,854
1998	15,769	6,795	2,914
1999	14,705	6,683	2,974
2000	15,601	7,341	3,199
2001	16,553	8,041	3,424
2002	16,875	8,405	3,529
2003	17,953	9,091	3,709
17% Flat Tax			
1996	17,164	9,526	4,034
1997	15,905	8,980	3,810
1998	14,806	8,508	3,569
1999	13,923	8,123	3,351
2000	14,155	8,246	3,349
2001	14,419	8,393	3,370
2002	14,287	8,333	3,250
2003	14,617	8,480	3,240
20.8% Flat Tax			
1996	21,001	11,656	4,936
1997	19,460	10,987	4,662
1998	18,116	10,410	4,366
1999	17,036	9,939	4,099
2000	17,319	10,090	4,097
2001	17,642	10,269	4,123
2002	17,480	10,195	3,977
2003	17,884	10,376	3,965

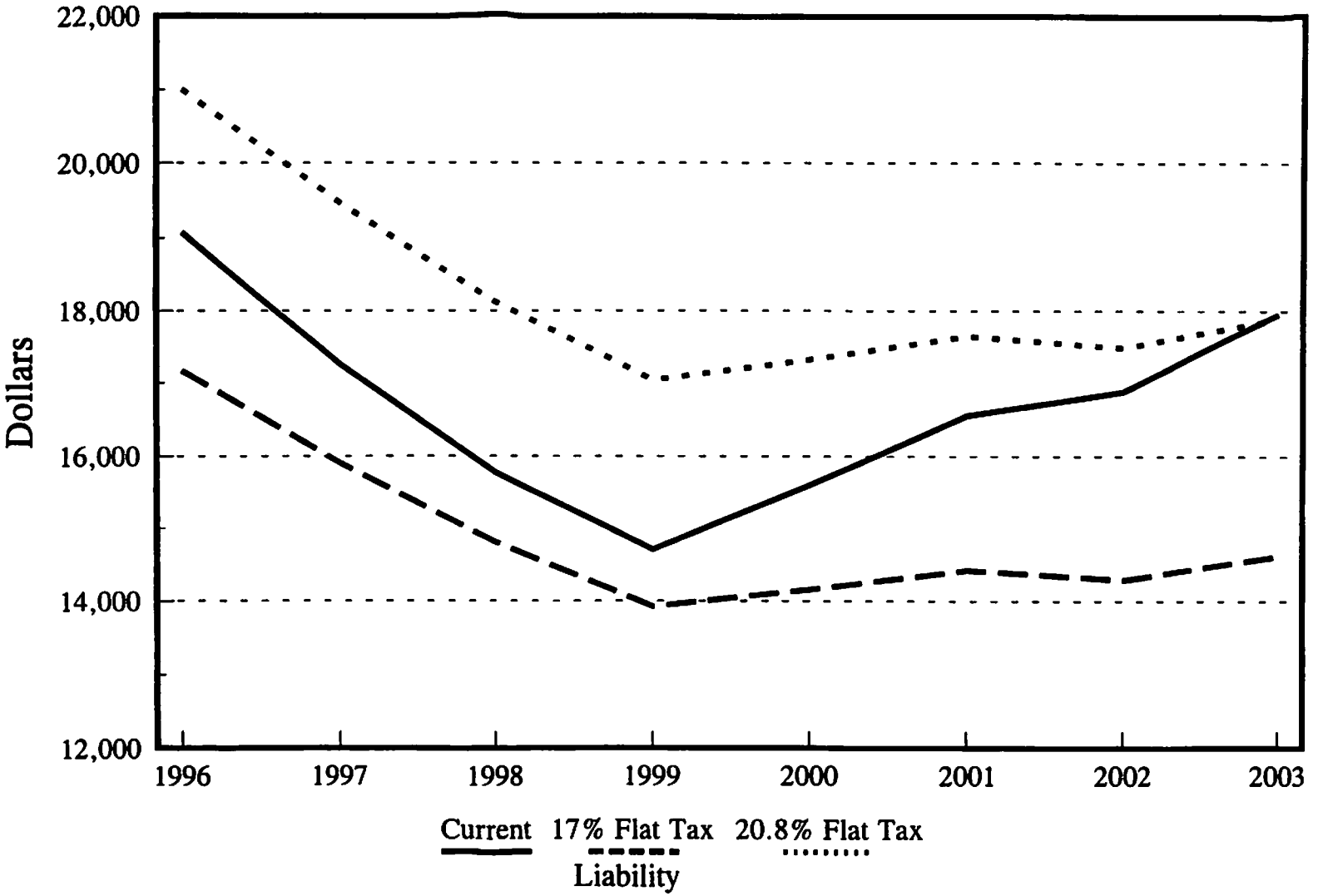

Figure 1. Federal Income Tax for North Dakota Large Size Representative Farm

In 2003, the large size representative farm under the 17% flat tax proposal owed $3,336 less than under the current tax code and $69 less under the 20.8% flat tax proposal. The medium size representative farm owed $611 less under the 17% flat tax for 2003 and $1,285 more under the 20.8% flat tax proposal. The small size representative farm owed $469 less under the 17% flat tax proposal and $256 more under the 20.8% flat tax proposal.

Figures 2 and 3 show the tax liability for large, medium, and small size representative farms under both the current tax code and the flat tax proposals. Tax liabilities for large and medium size representative farms under the current tax code decreased through 1999 and then increased for the remaining portion of the forecast period. Those under the flat tax proposals decreased through 1999 and then remained at that level. For the small size representative farm, tax liabilities under the current tax code increased over the 1996-2003 period while those under the flat tax proposals decreased. The reason for the differences is that depreciation allowed under the current tax code is larger than the expensing of capital purchases under the flat tax proposal. Depreciation decreased throughout the forecast period under the current tax code while capital purchases increased 3% a year under the flat tax proposal.

Table 8 shows the difference in tax liability between the various tax proposals and the current tax code for the forecast period, 1996-2003. The large representative farm paid less income tax under the 17% flat tax, but more under the 20.8% flat tax. The medium representative farm paid more tax under both the 17% flat tax and the 20.8% flat tax. The small representative farm also paid more tax under both the 17% flat tax and the 20.8% flat tax.

Table 8. Increases in Tax Liability by Farm Size, as Compared to the Current Tax Code, Over the Forecast Period, 1996-2003

	Large	Medium	Small
	---------dollars---------		
17% Flat Tax	-14,505	7,860	2,606
20.8% Flat Tax	12,157	23,192	8,859

Negative sign indicates decreased tax liability.

Profitability of Farms

Table 9 shows the projected income tax liability for high, average, and low profit representative farms. The high profit representative farm benefited under the 17% flat tax proposal, but paid more taxes under the 20.8% flat tax proposal. For 1996, the tax liability for the high profit representative farm under the 17% flat tax proposal was $576 more than under the current tax code and $3,012 more under the 20.8% flat tax. The average profit representative farm owed $2,180 more in taxes under the 17% flat tax proposal and $3,638 more under the 20.8% flat tax proposal. The low profit representative farm owed no income tax under any proposal.

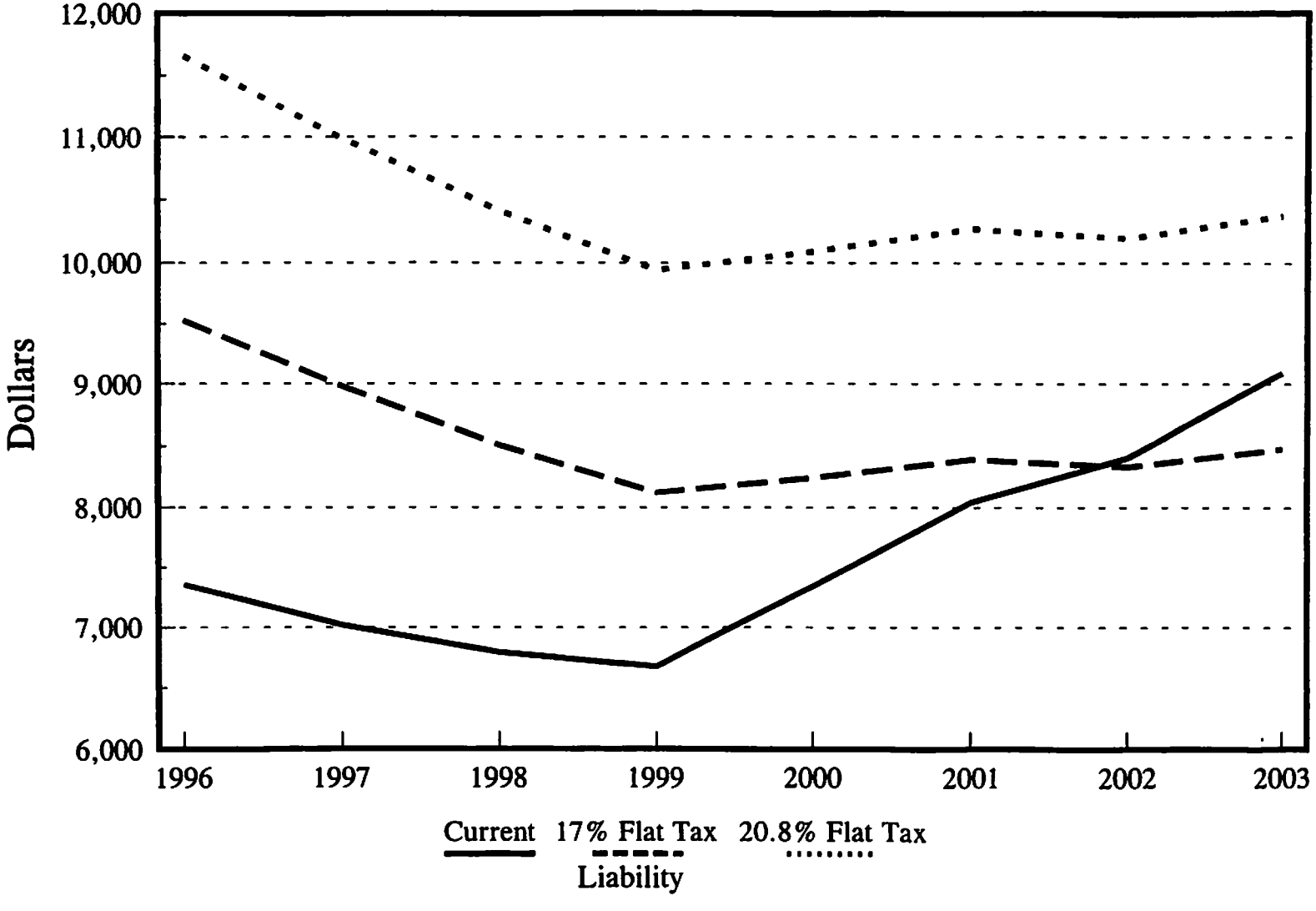

Figure 2. Federal Income Tax for North Dakota Medium Size Representative Farm

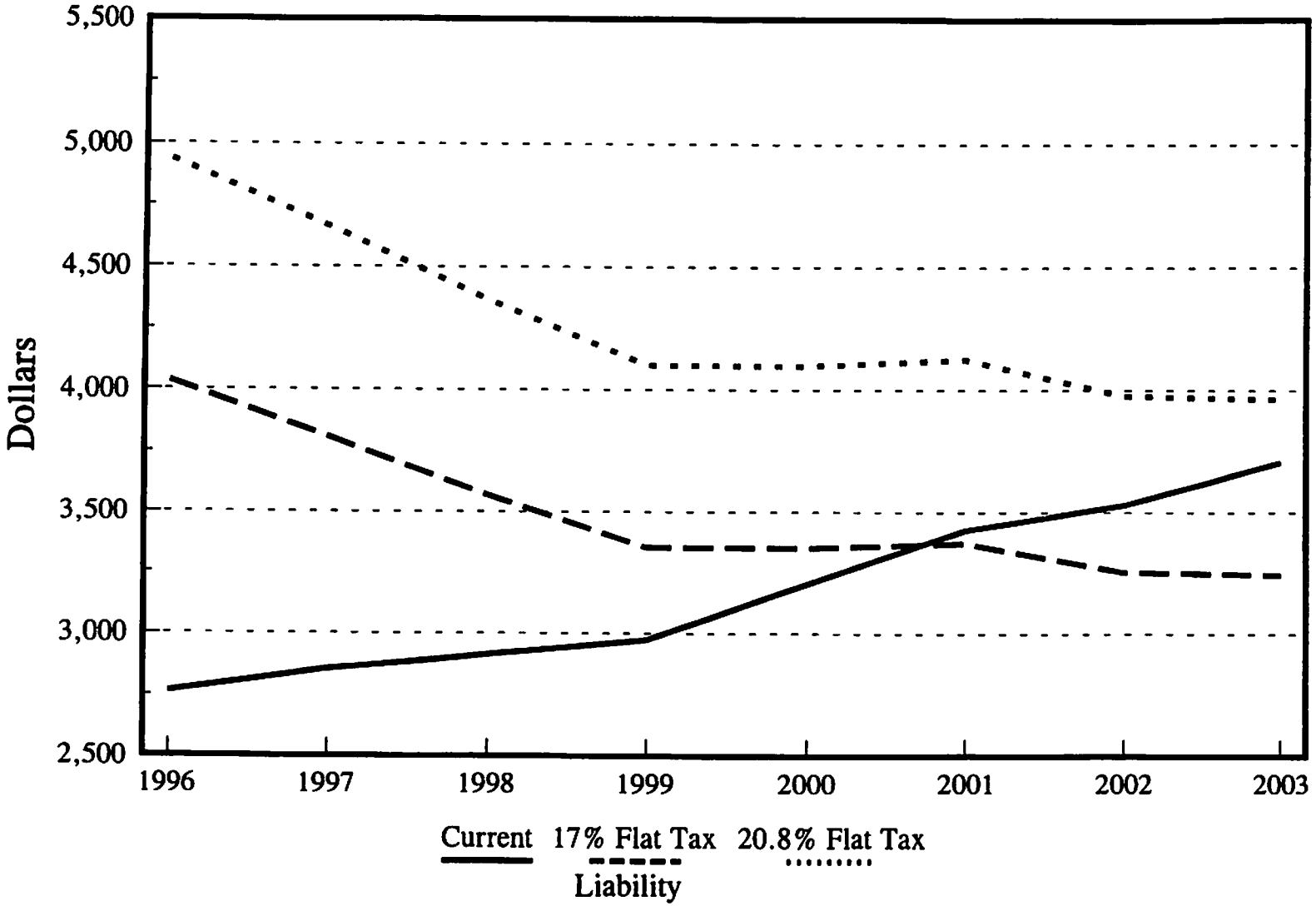

Figure 3. Federal Income Tax for North Dakota Small Size Representative Farm

Table 9. Income Tax Liability for the Various Profit Representative Farms Under the Current Tax Code, the 17% Flat Tax and the 20.8% Flat Tax

	High	Average	Low
	----------dollars----------		
Current			
1996	10,323	4,346	0
1997	11,121	4,661	0
1998	11,093	4,811	0
1999	11,135	4,969	0
2000	11,443	5,276	0
2001	12,213	5,614	0
2002	12,535	5,824	0
2003	12,983	6,249	0
17% Flat Tax			
1996	10,899	6,526	0
1997	11,063	6,469	0
1998	10,725	6,232	0
1999	10,432	6,022	0
2000	10,286	6,005	0
2001	10,423	6,039	0
2002	10,284	5,929	0
2003	10,220	5,891	0
20.8% Flat Tax			
1996	13,335	7,984	0
1997	13,536	7,915	0
1998	13,122	7,625	0
1999	12,764	7,368	0
2000	12,585	7,347	0
2001	12,753	7,388	0
2002	12,583	7,255	0
2003	12,505	7,207	0

In 2003, the high profit representative farm owed $2,763 less under the 17% flat tax proposal than under the current tax code and $478 less under the 20.8% flat tax. The average profit representative farm owed $358 less under the 17% flat tax proposal for 2003, but $958 more under the 20.8% flat tax. The low profit representative farm owed no income tax under either proposal. Figures 4 and 5 show the tax liability for high and average profit representative farms under both the current tax code and the flat tax proposals. Tax liabilities for the high profit representative farm under the current tax code increased rapidly over the time period while those under the flat tax proposal decreased gradually.

Table 10 shows the difference in tax liability between the various tax proposals and the current tax code for the forecast period, 1996-2003. The high profit representative farm paid less income tax under the 17% flat tax, but more under the 20.8% flat tax proposal. The average profit representative farm paid more tax under both the 17% flat tax and the 20.8% flat tax. The low profit representative farm paid no tax under either the 17% or 20.8% flat tax.

Table 10. Increases in Tax Liability by Farm Profitability, as Compared to the Current Tax Code, Over the Forecast Period, 1996-2003

	High	Average	Low
	----------dollars----------		
17% Flat Tax	-8,514	7,362	0
20.8% Flat Tax	10,337	18,340	0

Negative sign indicates decreased tax liability.

Social Security Taxes

Tables 11 and 12 show the Social Security tax liability for the various representative farms under the current tax code and the flat tax proposals. Table 13 shows the Social Security taxes owed under the flat tax proposal. Average and low profit representative farms paid more in Social Security taxes in all years, except for 2001-2003 when no Social Security taxes were owed by the low profit representative farm. The medium and small size representative farms also paid increased Social Security taxes under the flat tax proposal. The large size and high profit representative farms did not pay increased Social Security taxes because they were already paying the maximum amount. The low profit representative farm paid higher social security taxes over the forecast period, as well.

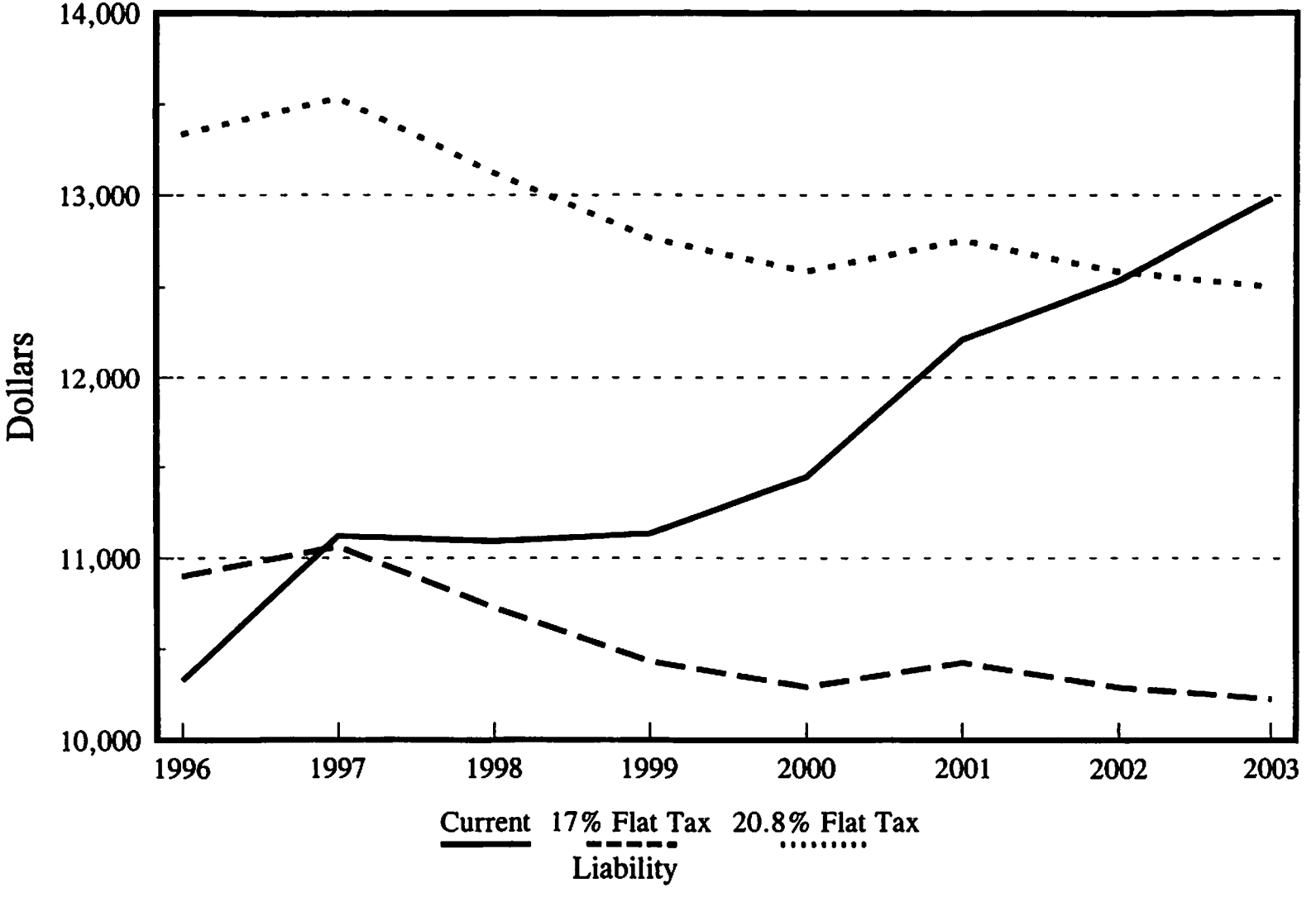

Figure 4. Federal Income Tax for North Dakota High Profit Representative Farm

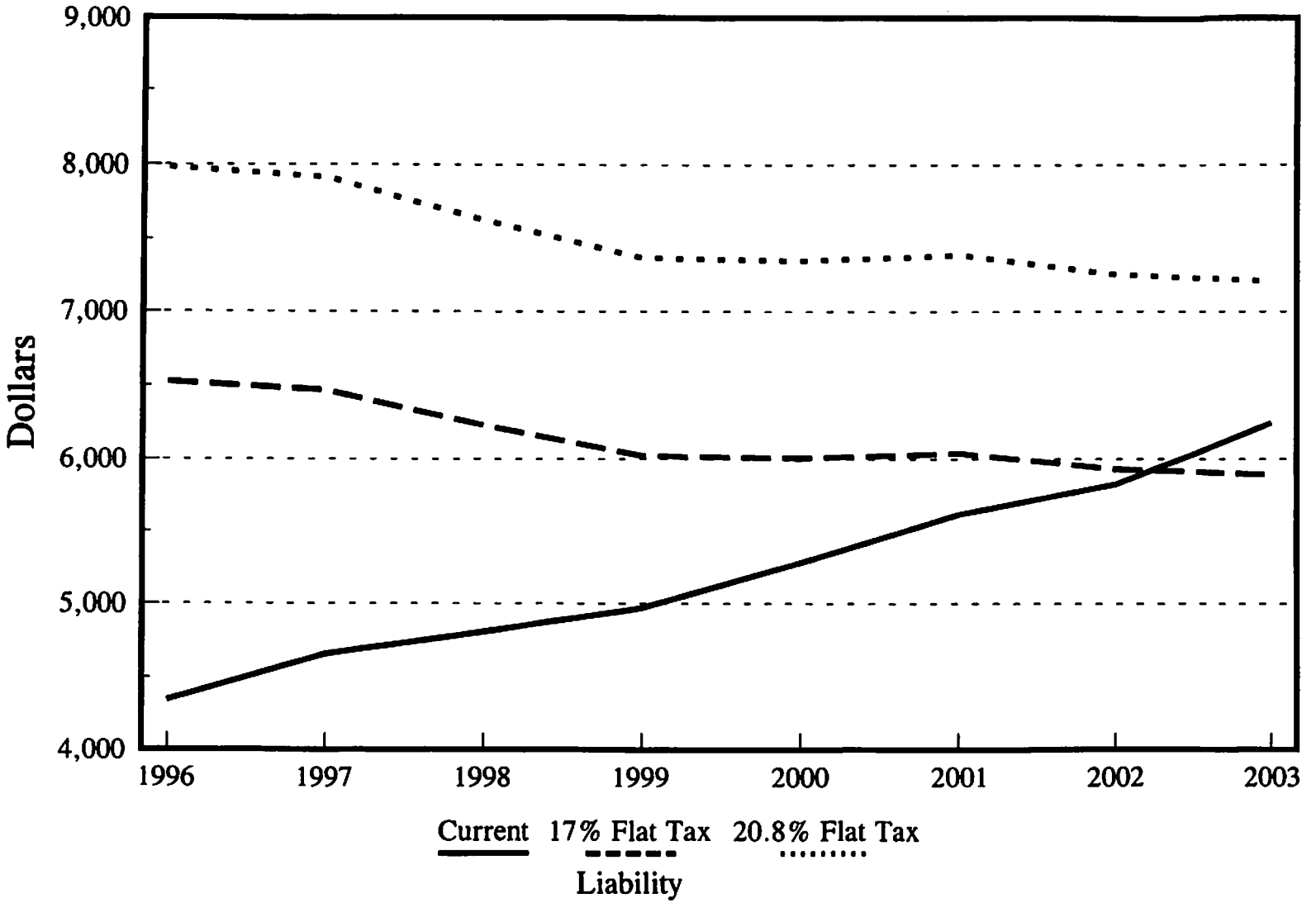

Figure 5. Federal Income Tax for North Dakota Average Profit Representative Farm

Table 11. Social Security Liability Under the Current Tax Code for Various Representative Farms

	Size			Profit		
	Large	Medium	Small	High	Average	Low
	dollars					
1996	9,364	8,244	3,377	9,364	5,604	0
1997	9,364	7,991	3,405	9,364	5,891	0
1998	9,364	7,797	3,395	9,364	5,998	0
1999	9,364	7,676	3,386	9,364	6,113	0
2000	9,364	8,007	3,553	9,364	6,387	0
2001	9,364	8,352	3,725	9,364	6,692	0
2002	9,364	8,506	3,754	9,364	6,855	0
2003	9,364	8,842	3,867	9,364	7,070	0

Table 12. Social Security Liability Under the Flat Tax Proposal for Various Representative Farms

	Size			Profit		
	Large	Medium	Small	High	Average	Low
	dollars					
1996	9,364	9,364	6,204	9,364	8,886	1,173
1997	9,364	9,364	5,936	9,364	8,782	1,014
1998	9,364	9,364	5,650	9,364	8,513	638
1999	9,364	9,364	5,383	9,364	8,267	230
2000	9,364	9,364	5,308	9,364	8,193	14
2001	9,364	9,364	5,252	9,364	8,163	0
2002	9,364	9,364	5,067	9,364	8,002	0
2003	9,364	9,364	4,978	9,364	7,903	0

Table 13. Additional Social Security Liability Under the Flat Tax Proposal for the Various Representative Farms

	Size			Profit		
	Large	Medium	Small	High	Average	Low
	dollars					
1996	0	1,120	2,827	0	3,283	1,173
1997	0	1,373	2,531	0	2,891	1,014
1998	0	1,567	2,255	0	2,515	638
1999	0	1,688	1,997	0	2,154	230
2000	0	1,357	1,754	0	1,806	14
2001	0	1,012	1,527	0	1,471	0
2002	0	858	1,313	0	1,147	0
2003	0	522	1,111	0	833	0

Total Tax Liability

Figure 6 shows the income tax liability under various taxable incomes and tax proposals. Under the 17% flat tax proposal, high income producers paid less taxes than under the current tax code and other producers, those with less that $46,000 in taxable income, paid more taxes. Under the 20.8% flat tax proposal, all income classes paid more in taxes.

Table 14 and Figures 7 and 8 show the differences in income tax and social security liabilities for the forecast period, 1996-2003. Only the high profit and large size representative farms had a tax savings under the 17% flat tax proposal. In all other cases income tax liability increased.

Table 14. Increases in Federal Income Tax and Social Security Tax Liability as Compared to the Current Tax Code for the Forecast Period, 1996-2003

	Profit			Size		
	High	Average	Low	Large	Medium	Small
	dollars					
17% Flat Tax	-8,514	23,462	3,069	-14,504	17,357	17,921
20.8% Flat Tax	10,336	34,349	3,069	12,157	32,689	24,174

Negative sign indicates decreased tax liability.

Concluding Remarks and Implications

North Dakota's large size and high profit representative farms would benefit under the 17% flat tax proposal. In all other situations, representative farms would pay more taxes under the flat tax proposals than under the current tax code. It is reasonable to assume farmers would change their business strategies should a flat tax be put in place. Because interest costs would no longer be deductible as business expenses, farmers would likely seek to avoid borrowing money.

The higher cost of borrowed funds under a flat tax suggests two possible changes in farm land ownership. First, farmers unable to pay cash for land purchased may choose to rent more of the land they farm. Second, farm land ownership may tend to be concentrated in the hands of farmers and investors who are able to pay cash for land. If farmers were permitted to expense land in the year purchased, however, more farmers could become interested in land purchases.

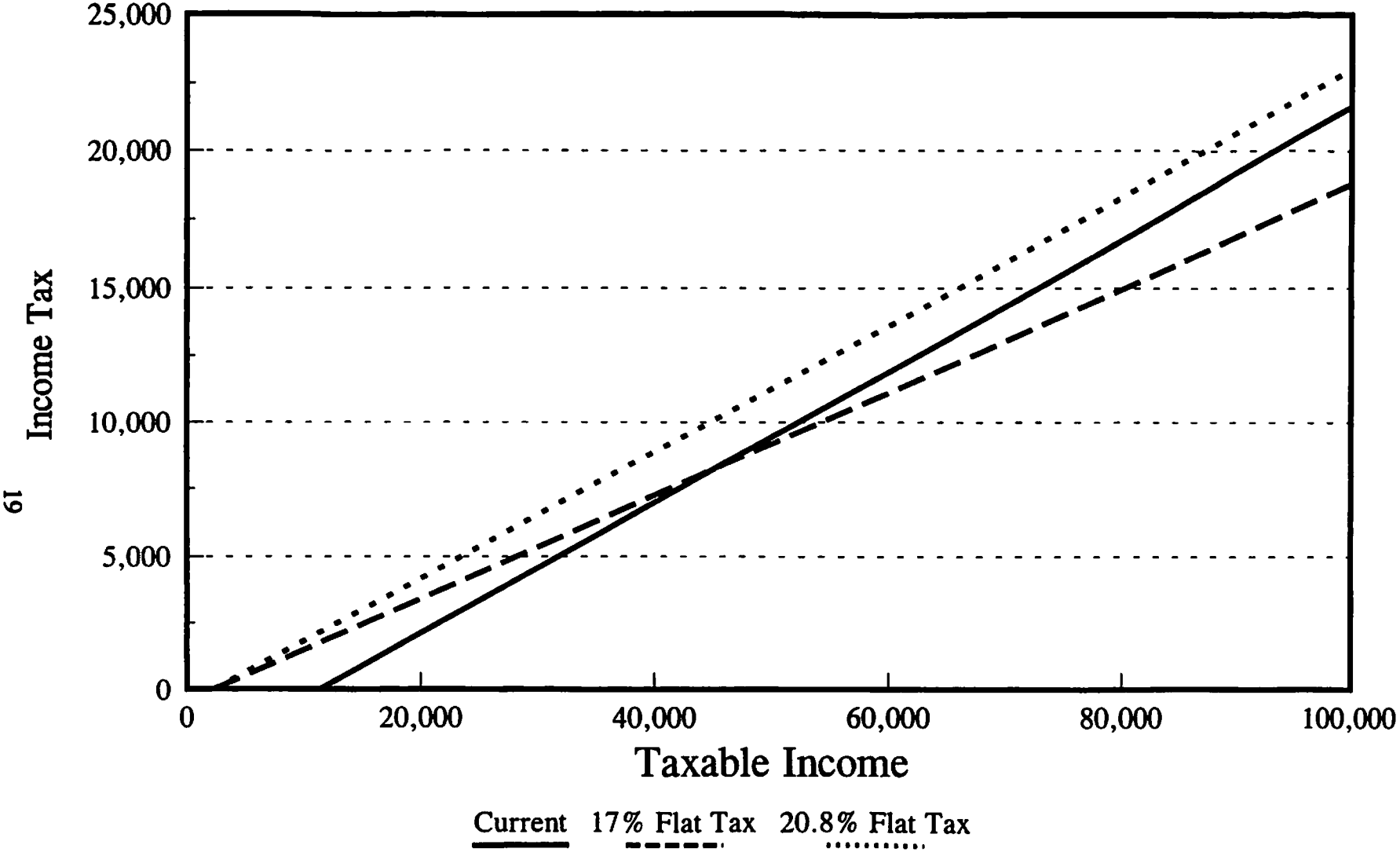

Figure 6. Federal Income Tax Liability Under Various Taxable Incomes and Tax Proposals

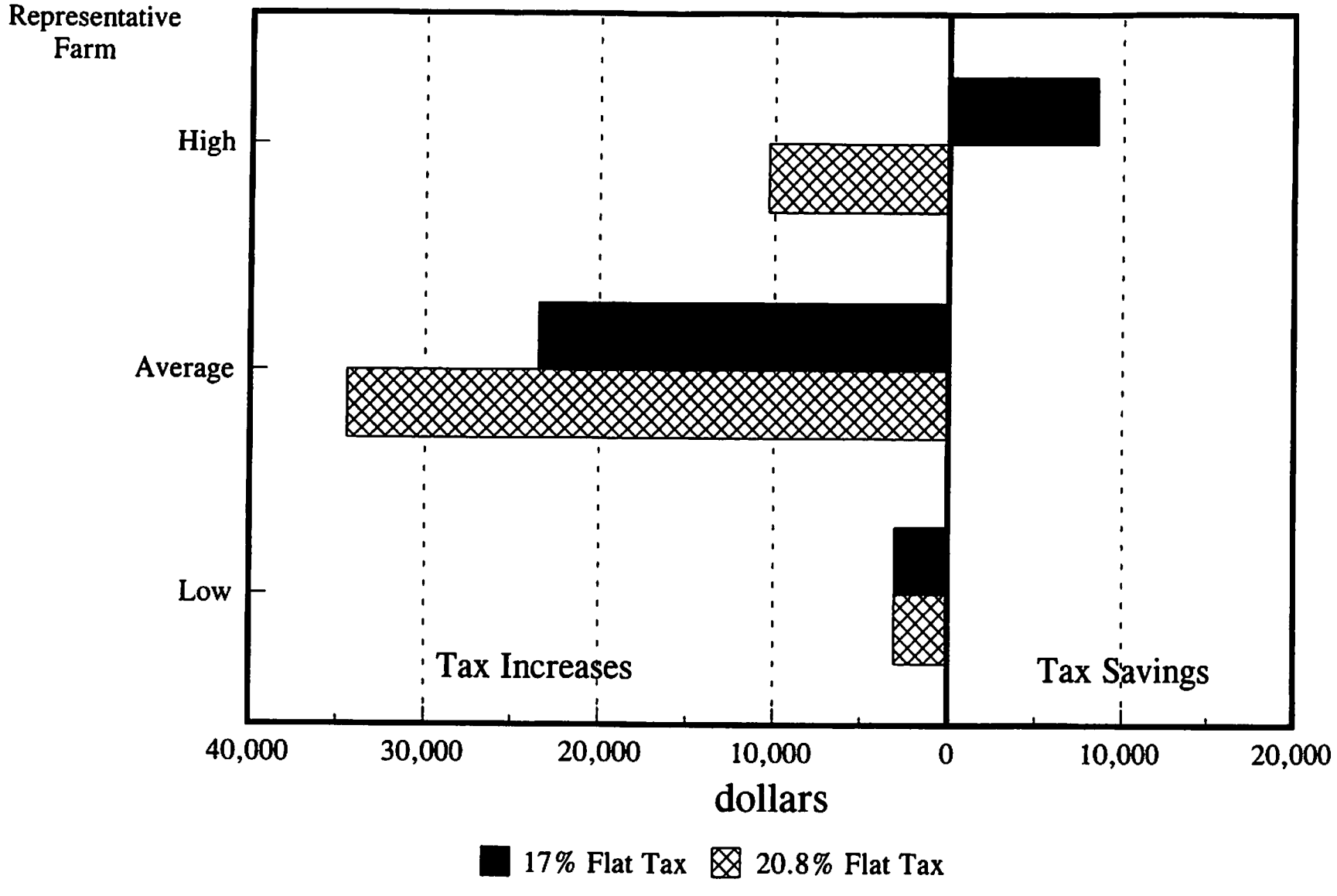

Figure 7. Differences in Federal Income and Social Security Tax Liability Between the Current Tax Code and the Flat Tax Proposals for Representative Farms by Profitability, Over the Forecast Period, 1996-2003

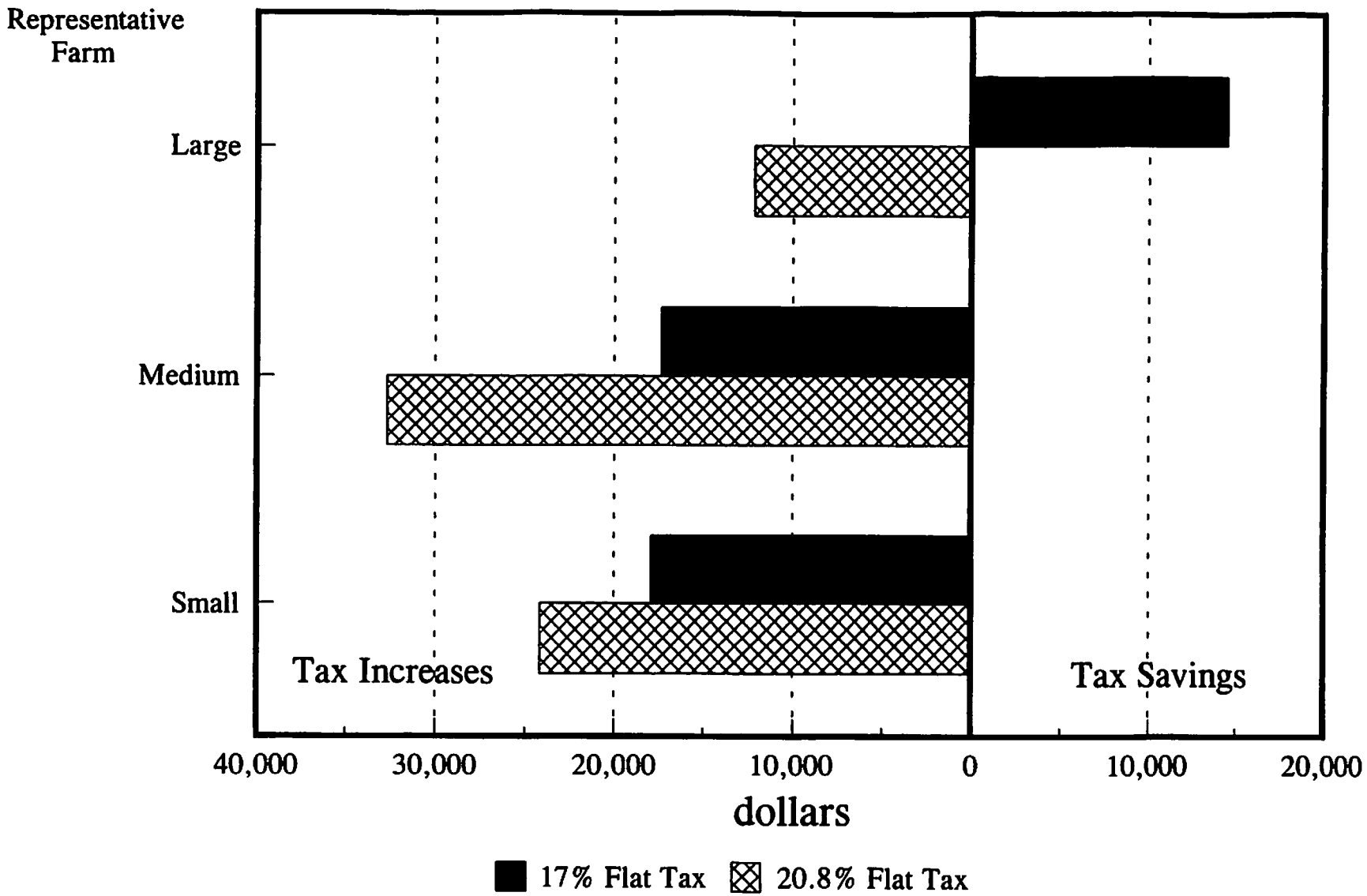

Figure 8. Differences in Federal Income and Social Security Tax Liability Between the Current Tax Code and the Flat Tax Proposals for Representative Farms by Size, Over the Forcast Period, 1996-2003

Farmers are also likely to use lease financing to control the use of expensive equipment rather than pay interest on funds borrowed to finance those purchases. Though interest costs are embedded in lease financing charges, those charges are currently deductible as operating expenses and would likely also be so under the flat tax proposals.

Changes in the tax rates for both gift and estate taxes will have uneven impacts on farmers of different wealth positions, as well. Wealthier persons may experience significant reductions in tax liabilities on large estates and gifts. More detail on the level at which taxes become applicable on gifts and estates under the proposed legislation would be required to conduct detailed analyses on the differential impact of the taxes. The extent to which currently allowed adjustments to the basis in real property continue to apply would also be a factor in evaluating the behavior of property owners under a flat tax code.

Irrespective of the benefit that flat taxes might bring to the nation, businesses, and consumers, taxpayers likely will be innovative in creating ways to deduct disguised interest costs from taxable income. Tax attorneys and accountants will find a flat tax system offers new challenges and opportunities for tax avoidance. Implementing a flat tax system may not necessarily simplify tax accounting and reporting.

A primary objective of any tax system is to raise sufficient funds to pay for the desired level of government spending. A secondary objective is to equitably distribute the necessary tax burden across citizens and businesses. Any changes in tax codes that provide relief to some persons must be offset by others paying more.

Finally, there currently is substantial public interest in exploring a flatter tax rate structure, greater tax equity, and simplification of the tax process. Based upon the analysis reported in this publication, flatter may not necessarily be either simpler or more equitable. Hence, while the concept of simplifying the tax system has a good deal of merit, the details of the proposals are critical to understanding the changes in tax incidence and equity.