INFORMATION TO USERS

The most advanced technology has been used to photograph and reproduce this manuscript from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps. Each original is also photographed in one exposure and is included in reduced form at the back of the book. These are also available as one exposure on a standard 35mm slide or as a 17" x 23" black and white photographic print for an additional charge.

Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 6" x 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.

Order Number 8912662

Factors in the noncompliance decision: An analysis of Michigan tax amnesty participants

Young, James Christian, Ph.D.

Michigan State University, 1988

FACTORS IN THE NONCOMPLIANCE DECISION:
AN ANALYSIS OF MICHIGAN TAX AMNESTY PARTICIPANTS

By

James Christian Young

A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of Accounting

1988

ABSTRACT

FACTORS IN THE NONCOMPLIANCE DECISION:
AN ANALYSIS OF MICHIGAN TAX AMNESTY PARTICIPANTS

By

JAMES CHRISTIAN YOUNG

Using data collected from individual tax amnesty participants in Michigan, this study performs a series of regression analyses to explore factors that influence taxpayer compliance. Separate regressions were run on the entire data set, five income stratifications based on adjusted gross income, and two data bases created to examine taxpayers who had no prior contact with the Michigan Department of Treasury.

Specifically, this study suggests that noncompliance increases as income increases. Taxpayers having some form of Treasury Department contact prior to amnesty (withheld taxes, estimated taxes, a W-2, or a letter from Treasury requesting information regarding a state tax return) had substantially less unreported income than those amnesty participants who had no contact prior to amnesty. Amnesty participants with the opportunity to evade taxes [a composite of occupation (self-employed, business, professional, or sales), an income level of $30,000 or more, and access to cash income sources] had substantially more unreported income than other taxpayers.

The occupations of amnesty participants were found to be a part of the decision process. Specifically, sales and self-employed taxpayers were more likely to be non-delinquent amnesty participants, while unskilled laborers were more likely to be merely delinquent in filing their tax returns (i.e., these individuals were more likely to have paid in most of their tax liability prior to amnesty). Amnesty participants who chose not to file a return in 1986 had more unreported income than

amnesty participants who filed a return in 1986 (i.e., these taxpayers were more likely evaders than delinquent taxpayers).

Although unable to generalize geographic findings, this study does support the contention that geographic location is a part of the noncompliance decision. The majority of studies (survey and experimental research) testing the compliance level of males versus other taxpayers have found males less compliant. This analytical study concludes that single males are less compliant than other taxpayers. Using exemptions as a surrogate for family size, this study found that as family size increases, so does the likelihood of evasion (versus delinquency of filing returns).

To Dad and Mom:
        for challenging me to always ask why
        for teaching me to strive to be the best
        for encouraging me in all that I do
        for loving me as only parents can

To Mary Jean:
        for her constant support
        for her ability to keep me focused
        for her love and encouragement

To Christian:
        may I do all these things for you.

ACKNOWLEDGMENTS

TABLE OF CONTENTS

CHAPTER 4: CREATION OF THE RESEARCH DATA BASE AND
A DESCRIPTIVE ANALYSIS OF THE DATA

CHAPTER 5: AN OVERVIEW OF THE RESEARCH STUDY AND
STATISTICAL METHODOLOGY

CHAPTER 6: RESULTS AND ANALYSIS

CHAPTER 7: **IMPLICATIONS OF FINDINGS AND EXTENSIONS OF THE RESEARCH EFFORT**

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1

INTRODUCTION AND PROBLEM IDENTIFICATION

Robin:	On Tuesday, I made a false income tax return.
All:	Ha! Ha!
1st Ghost:	That's nothing.
2nd Ghost:	Nothing at all.
3rd Ghost:	Everybody does that.
4th Ghost:	It's expected of you.

Ruddigore, Act II, Gilbert and Sullivan

1.1   Introduction

Tax compliance is a continuing national concern, and an issue that has gained increasing attention given the size of current budget deficits. Recent tax legislation has explicitly attempted to reduce noncompliance and recover uncollected taxes. Uncollected taxes from all sources of noncompliance are estimated by the Internal Revenue Service (IRS) to be $80 to $100 billion a year. In addition, the IRS has expressed great concern over an overall trend of declining voluntary compliance [IRS, 1983]. Because of these and other factors, there is great interest in establishing the factors contributing to compliance decisions.

The increase in compliance research has exposed the paucity of empirically verified knowledge (i.e., analytic research) about compliance. Graetz and Wilde [1985] have criticized the current status of tax compliance research on the following grounds:

1. Measures of compliance are weak and knowledge of major compliance problems is underdeveloped;

2. Theoretical approaches have been based on unrealistic assumptions and have not recognized the institutional constraints of enforcement policies; and

1

3. Searches for "magic bullets" that would "solve" the compliance problem (e.g., lower tax rates or alternative tax systems) are misplaced, since compliance encompasses a complex range of behaviors.

This study attempts to add to the analytic research base already established and further the understanding of the noncompliant taxpayer by examining certain economic and demographic factors available through data collected during the Michigan Tax Amnesty Program. The balance of this chapter is organized as follows:

- Discussion of tax noncompliance;
- Current estimates of the tax gap;
- Tax amnesty programs;
- Organization of the paper.

1.2   The Phenomenon of Tax Noncompliance

Definition of Noncompliance. The Internal Revenue Service regards the appropriate measure of noncompliance to be "all federal income taxes that are owed but not paid" [IRS (1983]. Noncompliance also has been defined as the amount of unreported taxable income -- the difference between the total amount of taxable income which is voluntarily reported during a given tax year and the correct amount of taxable income for that year (under the Internal Revenue Code), given all taxable events which occurred during the year. The latter definition will be used in this study to measure noncompliance.

Noncompliance from an individual income tax perspective—can be categorized into several major components, as follows:

Tax on Legal-Source Income	Tax on Illegal-Source Income
■ Tax associated with filed returns	■ Illegal gambling
■ Tax associated with nonfiled returns	■ Illegal drugs
	■ Prostitution

Tax Gap v. "Underground Economy". Although the tax gap is frequently thought to be the tax due on income earned in the "underground economy" (i.e., illegal source income) this metaphor is not technically descriptive of the tax gap. It is important to emphasize that the tax gap relates to a large variety of errors and misrepresentations including overstatement of personal and business deductions, personal exemptions and statutory adjustments, as well as understatement of income.

While significant amounts of the tax gap are related to cash businesses (e.g., "off-the-books" businesses such as moonlighting workers, sidewalk vendors, etc.), other more "typical" forms of "above-ground" income share in its make-up (e.g., unreported interest and dividends, capital gains, etc.). In addition, not all underground economic activity results in tax evasion. For example, a person with very low income deriving marginal amounts from underground activities may still have such a low total of income that no tax is owed.

Although the term "underground economy" is not completely descriptive of the noncompliance problem, it will continue to be used here and discussed within the context of tax compliance.

1.3   Estimating the Tax Gap

Gutmann's Estimation of the Tax Gap. One event which sparked public interest in the underground economy was Gutmann's analysis [1977] of the tax gap. Gutmann estimated that the subterranean economy (his chosen label) was in the range of $176 billion in 1976 -- over 10 percent of the gross national product.

The basis for Gutmann's estimate was an analysis of the amounts of cash in circulation compared with demand deposits held by banks. He

analyzed these relationships and their trends since World War II (he assumes little in the way of subterranean activity prior to that time). His research concluded that there is far more cash in circulation than can be accounted for by bank deposits and reasonable allowances for cash held by businesses and individuals.

Gutmann's estimates, and particularly his methods, were the subject of considerable initial skepticism. But, as other researchers (e.g., Feige [1979] and Tanzi [1980]) have reported their results, it is becoming clearer that Gutmann's figures at least reflect a measure of moderation and balance within the context of developing theories on the tax gap.

Table 1-1 displays four of the most often referenced estimates of the tax gap. It is notable that the estimates of Gutmann, Feige, and Tanzi all are derived from analyses of indirect indicators of underground activity. The IRS figures have a more empirical basis. Feige's estimates, developed for the Netherlands Institute for Advanced Study, are viewed dubiously by a number of commentators. The use of the money supply as a basis for estimating the underground economy is generally considered less reliable than Gutmann's basic approach. Tanzi revised Gutmann's method by considering a number of other variables (e.g., interest rates, share of wages and salaries in personal income, per capita income, and average tax rates).

TABLE 1-1

COMPARISON OF METHODS OF ESTIMATING U.S. UNDERGROUND ECONOMY IN 1976

Author/Source	Size of Underground Economy As A Percent of GNP	Method of Estimation
Feige	22 - 33 %	Analysis of total money supply relative to GNP
Gutmann	10 - 14 %	Ratios of currency in circulation to demand deposits
IRS	6 - 8 %	Analysis of income tax returns and other measures of noncompliance
Tanzi	4 %	Ratios of currency to demand deposits, adjusted to consider currency demand, interest rates, tax rates, and other variables

---

Internal Revenue Service Research. Most of the economists and other social scientists who have studied the underground economy have directed their investigations toward obtaining broadly stated estimates of its aggregate size or determining the causative forces and motivations for noncompliance. Although almost all acknowledge the primacy of tax related issues as an underlying cause (and the loss of tax revenues as a principal consequence) there has been little independent research specifically directed at the tax gap.

The Internal Revenue Service has made a comprehensive effort to associate measures of underground economic activity with their related tax consequences. Their first report, Estimates of Income Unreported on Income Tax Returns [1979] was the result of a research effort stimulated at least in part by the wide interest and public questioning generated by Gutmann's conclusions. The report's bottom line was an estimate that

between $75 billion and $100 billion in legal sector income, and between $25 billion and $35 billion in illegal sector income, went unreported and untaxed in 1976. This implied losses of federal tax revenues in the range of $19 billion to $26 billion, well over ten percent of actual federal tax revenues of $142 billion for that year.

This IRS report in turn generated further public interest, especially as various Congressional committees turned their attention to the problem. Certainly the report and its implications, supported by independent estimates and commentary by economists and others, played a role in pushing the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA) through to passage. TEFRA contained numerous tax compliance measures designed to encourage self-compliance and deter tax evasion.

More recently IRS researchers have published a comprehensive study, Income Tax Compliance Research [1983]. This report reflected a broader view of the tax gap, estimating all its components, not just unreported income as had the 1979 report.

In contrast to other researchers who use various indirect methods to estimate the size of the tax gap, the IRS has employed a more direct approach. The estimates of underreported income and overstated items of filers were derived from returns examined under the IRS' Taxpayer Compliance Measurement Program (TCMP). The estimates developed were then adjusted on the basis of a further comparative study with the IRS' Information Returns Program (IRP), which pointed out inadequacies in the ability of the TCMP surveys to fully detect underreporting.

The IRS points out that the estimates have been notably cautious in estimating illegal sector income from drug sales and in estimating the size of the nonfiling problem.

The report's key findings (as related to the present study) are summarized in Tables 1-2 through 1-6 [IRS, 1983]. Table 1-2 presents estimates of the total federal tax gap for the years 1973, 1976, 1979 and 1981. The total tax gap for 1981 was estimated at about $91.5 billion, with $81.5 billion (or about 89 percent) from the legal sector. Only $9 billion (about eleven percent) is from the illegal sector. The table illustrates the dramatic growth in the aggregate tax gap, from about $30.9 billion in 1973 to $91.5 billion in 1981. This growth is not all due to increases in cheating, other factors are also at work (e.g., inflation).

Table 1-3 provides estimates of unreported legal source income, again for 1973 through 1981. As an example, note that in 1981, the highest amounts of noncompliance derive from unreported wages and salaries (about $94.6 billion) and unreported business income ($58.4 billion). These two categories comprise about 61.3 percent of the total unreported legal source income items. Table 1-4 shows estimates of overstated deductions and exemptions. Overstatements of ordinary business expenses represent about 49 percent of the total for 1981.

Table 1-5 provides a different view of the various 1981 estimates, showing a breakdown of unreported income between filers and nonfilers, in addition to restating the amounts of overstated deductions and exemptions. In addition, it shows how the individual income tax gap amount was computed ($68.5 billion, as shown in Table 1-2). Table 1-6 provides a breakdown of the tax gap estimates for the illegal sector.

No other direct estimates of the tax gap exist. As a result, the relative merits of the IRS study are somewhat difficult to determine. However, since the IRS has access to a wealth of data in this area, and

their tax gap estimates show up in the midrange of opinions (based on Table 1-1), it would appear that the results are objective.

In July 1987, the American Bar Association released the results of a four-year study on taxpayer compliance (ABA Commission on Taxpayer Compliance [1987]). The Commission was formed in 1983 to recommend ways of improving compliance with the federal income tax laws. The Commission's report further corroborates the findings of the 1983 IRS study, noting that the current tax gap approximates $100 billion. According to the report, the factors contributing to the noncompliance decision include (but are not limited to):

1. Opportunity (a combination of income source and occupation),

2. Complexity,

3. Perceived unfairness,

4. Tax rates, and

5. Lack of contact by the IRS.

TABLE 1-2

INCOME TAX GAP, 1973-1981
(In Billions of Dollars)

	1973	1976	1979	1981
Legal sector tax gap, total	28.8	39.2	62.3	81.5
Corporation tax gap, total	3.5	4.6	6.4	6.2
Individual tax gap, total	25.3	34.6	55.9	75.3
Individual income tax liability reporting gap, total	23.8	32.2	50.6	68.5
Nonfilers' income tax liability (Net of prepayments and credits)	0.9	1.4	2.0	2.9
Filers' income tax liability:	22.9	30.8	48.6	65.6
Unreported income	17.3	24.2	38.4	52.2
Overstated business expenses	2.1	3.4	4.7	6.3
Overstated personal deductions[1]	3.4	3.0	5.0	6.6
Net math error	0.1	0.2	0.5	0.5
Individual income tax remittance gap, total	1.5	2.4	5.3	6.8
Employer underdeposit of withholding[2]	1.1	0.9	1.8	2.4
Individual balance due after remittance	0.4	1.5	3.5	4.4
Illegal sector tax gap (partial)[3]	2.1	3.4	6.3	9.0

[1] Includes itemized deductions, personal exemptions, and statutory adjustments.
[2] Also includes a small amount for underreported withholding by employees and a small negative amount for underclaimed withholding by individuals
[3] Includes income from illegal drugs, illegal gambling, and prostitution only.

Source: "Income Tax Compliance Research," Internal Revenue Service [1983].

TABLE 1-3

UNREPORTED LEGAL SOURCE INCOME OF INDIVIDUAL
INCOME TAX FILERS AND NONFILERS, 1973-1981
(In Millions of Dollars)

	1973	1976	1979	1981
Wages and salaries	33,304	46,274	71,076	94,581
Dividends	1,920	3,638	5,528	8,747
Interest	4,440	6,763	11,548	20,479
Capital gains	5,015	9,935	16,283	17,727
Nonfarm proprietor income and partnership and small business corporation income[1]	23,906	32,565	47,246	58,400
Farm proprietor income	5,742	4,542	7,832	9,547
Informal supplier income	10,346	12,721	16,995	17,080
Pensions and annuities	3,123	4,067	6,258	8,799
Rents	1,335	2,390	2,711	3,049
Royalties	312	1,088	1,672	2,770
Estate and trust income	487	695	1,140	1,330
State income tax refunds, alimony, and other income	3,990	6,857	6,260	7,166
Total Unreported Income[2]	93,919	131,535	194,548	249,675

[1] Does not include informal supplier income.

[2] Total may not equal sum of components due to rounding.

Source: "Income Tax Compliance Research," Internal Revenue Service
[1983].

TABLE 1-4

OVERSTATED SUBTRACTIONS FROM INCOME REPORTED BY FILERS ON INDIVIDUAL
INCOME TAX RETURNS BY TYPE OF SUBTRACTION, 1973-1981
(In Millions of Dollars)

	1973	1976	1979	1981
Overstated business expenses[1]	7,229	10,887	13,250	16,179
Overstated statutory adjustments	1,368	448	1,113	1,803
Overstated personal deductions	5,759	4,737	5,595	6,958
Overstated exemptions	4,269	4,693	7,435	8,060
Total overstatement offsets to income	18,625	20,765	27,393	33,000

[1] Consists of overstated expenses of farm and nonfarm proprietors,
partnerships and small business corporations, rental properties owned
by individuals, and estates and trusts paying income to individuals.

Source: "Income Tax Compliance Research," Internal Revenue Service
[1983].

TABLE 1-5

UNREPORTED LEGAL SOURCE INCOME AND OVERSTATED OFFSETS TO INCOME,
INDIVIDUAL INCOME TAX, 1981
(In Millions of Dollars)

Type of Income of Offset to Income	Filers	Nonfilers	Total
Wages and salaries	18,881	75,700	94,581
Dividends	6,596	2,151	8,747
Interest	12,120	8,359	20,479
Capital gains	15,241	2,486	17,727
Nonfarm proprietor income (except informal supplier income)	33,615	10,561	44,176
Farm proprietor income	8,499	1,048	9,547
Partnership and small business corporation income[1]	10,786	3,439	14,225
Informal supplier income[2]	13,848	3,232	17,080
Pensions and annuities	4,131	4,688	8,799
Rents	2,637	412	3,049
Royalties	1,866	904	2,770
Estate and trust income	646	684	1,330
State income tax refunds, alimony, and other income	4,975	2,191	7,166
Total Unreported Income	133,840	115,835[3]	249,675
Overstated business expenses	16,179	NA	16,179
Overstated statutory adjustments	1,803	NA	1,803
Overstated personal deductions	6,958	NA	6,958
Overstated exemptions	8,060	NA	8,060
Total Overstated Offsets[4]	33,000	NA	33,000
Total Misreporting[5]	166,840	115,835	282,675
Gross Tax Gap[6]	65,600	5,042	70,642
Unclaimed Prepayments and Credits	NA	2,185	2,185
Net Tax Gap	65,600	2,857	68,457

Note: Sum of components may not add to totals due to rounding.

NA indicates not applicable

[1] Such income, which for tax purposes is treated as partnership income, is taxable to stockholders as ordinary income whether or not distributed.

[2] For a definition of informal suppliers, see Appendix D, Income Tax Compliance Research [IRS, 1983].

[3] Includes business income on a net income basis.

[4] Excludes credits which are offsets to tax liability.

[5] This is the sum of "Total Unreported Income" and "Total Overstated Offsets".

[6] Tax liability based on total misreporting.

Source: "Income Tax Compliance Research," Internal Revenue Service [1983].

TABLE 1-6

PARTIAL TAX GAP ESTIMATES FOR THE ILLEGAL SECTOR, 1973-1981
(In Billions of Dollars)

| | Tax Gap | | | |
	1973	1976	1979	1981
Illegal drugs	1.2	1.9	4.1	6.1
(Standard error)	(0.6)	(0.9)	(1.7)	(2.6)
Illegal gambling	0.4	0.6	0.7	0.9
(Standard error)	(0.1)	(0.2)	(0.3)	(0.3)
Prostitution[2]	0.6	1.0	1.5	1.9
(Standard error)	(0.6)	(0.9)	(1.5)	(1.9)
Total[3]	2.1	3.4	6.3	9.0
(Standard error)[4]	(0.8)	(1.3)	(2.2)	(3.2)

[1] The drugs included were limited to heroin, cocaine, and marijuana.

[2] Female prostitution only.

[3] Sum of components may not add to totals due to rounding.

[4] Sum of components will not add to totals due to offsetting errors in the calculations of total error.

Source: "Income Tax Compliance Research," Internal Revenue Service [1983].

1.4   Tax Amnesty Programs

The perception that tax evasion is increasing has been a powerful factor in motivating many state revenue officials to back amnesties and strengthen tax enforcement, which they see as complementary. Typically, these programs provide taxpayers with a one-time opportunity to clear their accounts by paying back taxes and interest without being subject to civil or criminal penalties.

Mikesell [1984] states that at least three theoretical considerations are important in the use of amnesty. These include:

1.   The perceived fairness of such programs in societies whose tax systems depend largely on voluntary compliance,

2.   The necessity that the amnesty program be viewed by taxpayers as a one time chance rather than a recurring opportunity, and

3.   The coupling of the amnesty program with tax reforms designed to discourage back sliding on the part of former amnesty participants.

Mikesell's theoretical considerations are weakly supported by the rather thin empirical literature on tax amnesty. States typically hope to accomplish three goals through the use of tax amnesty programs:

1.   To collect outstanding tax revenues inexpensively, including revenue otherwise uncollectible due to limited enforcement resources.

2.   To promote improved future citizen compliance with the tax laws, and

3.   To bring individuals into the state's revenue system who are unknown to the state and not easily detectable.

Other factors must be evaluated in designing an amnesty program. Prior research in the area of amnesty programs suggests that the programs will work only if used infrequently and randomly. Another factor is that of citizen perception of the program's fairness or equity (potentially the most controversial aspect of amnesty). A further consideration is

the relationship of the amnesty program to the more general issue of revenue system reform. If amnesty participants face the same incentives to engage in tax delinquency after the program as they did before, little or no permanent change may occur in their behavior. As a result, most states have coupled increased penalties and enforcement activities with the amnesty program.

State Amnesty Results. Illinois apparently sponsored the first amnesty program in 1982, raising less than $100,000. Larger scale programs began in 1983, when four states sponsored programs. However, only one state (Arizona) collected more than $1 million. Seven states ran programs in 1984, collecting over $250 million, with Illinois collecting $152 million of that in a second program. Six states followed in 1985, with California collecting $146 million of the $190 million total. New York and Michigan offered amnesties in 1986 and had two of the most successful programs -- raising $363 million and $110 million, respectively. Table 1-7 provides a summary of state tax amnesty programs.

The Michigan Tax Amnesty Program. In April 1985, a tax amnesty program was proposed as part of a larger tax package. In addition to the amnesty, the final legislation included funding for an enhanced enforcement effort (audit and discovery divisions), changes in the computation of interest on underpayments of tax, and increases in penalties that could be assessed. Subsequent to amnesty, interest rate computations were tied to the prime rate and adjusted semiannually. In addition, most previous penalties were increased and their coverage expanded. New penalties were added for frivolous filings and for

TABLE 1-7

SUMMARY OF STATE TAX AMNESTIES

Year	State	$ (millions) Collections	% of State Taxes	Returns	Increased Enforcement
1982	Illinois	0.1	--	400	Yes
1983	Arizona	6.0	0.3	10,600	Yes
	Idaho	0.3	--	900	Yes
	Missouri	0.9	--	241	No
	North Dakota	0.2	--	630	No
1984	Alabama	3.2	0.1	10,150	Yes
	Illinois	152.4	1.8	22,456	Yes
	Kansas	0.6	--	750	Yes
	Massachusetts	84.5	1.5	52,000	Yes
	Minnesota	11.9	0.2	10,400	No
	Oklahoma	13.9	0.5	56,500	Yes
	Texas	0.5	--	85	Yes
1985	California	146.5	0.5	164,000	Yes
	Colorado	6.0	0.3	7,000*	Yes
	Louisiana	1.2	--	400*	Yes
	New Mexico	13.9	1.0	48,000*	Yes
	South Carolina	7.1	0.2	7,600	Yes
	Wisconsin	20.0	0.4	30,000*	Yes
1986	Michigan	103.9	1.1	121,491	Yes
	New York	363.2	1.7	145,000*	Yes

*Incomplete data.

Source: Individual state departments of revenue, National Conference of State Legislatures.

taxpayers discovered subsequent to amnesty whose liability was covered by the amnesty program.

Under the amnesty program, the Department of Treasury waived all criminal and civil penalties for the failure to file a return or pay any state tax if an amnesty application was filed along with appropriate returns and payment of _any_ state tax and related interest due. The legislation excluded from participation all taxpayers under criminal investigation or civil or criminal prosecution, but it allowed tax and interest amounts on outstanding assessments (i.e., part of the accounts receivable system) to qualify for the amnesty.

Under the legislation, all taxes due on or before September 30, 1985 were eligible for amnesty. The amnesty program began on May 12, 1986 and ended on June 30, 1986. During the program, $109.8 million in revenue was generated from interest and tax payments. This revenue covered over 128,000 filings by about 75,000 taxpayers.

Table 1-8 provides a summary of the amnesty program. Of the $109.8 million generated, about $65.2 million was related to receivables known to the Treasury Department prior to amnesty. These taxpayers filed approximately 81,000 returns (63 percent of the total), and paid 59 percent of the total tax and interest payments under the amnesty. Taxpayers unknown to the Treasury Department prior to amnesty paid taxes and interest of about $44.6 million (41 percent of the total) and filed about 47,000 returns (about 37 percent of the total).

Tables 1-9 and 1-10 present additional information regarding the filings of taxpayers unknown to the Treasury Department prior to amnesty. Table 1-9 provides information relating to returns filed as part of the amnesty program. As can be seen from the table, individual income tax

applicants accounted for about 69 percent of these new filings, with the majority of these individuals filing only one return. Only in the intangibles and single business taxes do the returns per applicant exceed two.

Table 1-10 presents information regarding the revenues collected from these same taxpayers. Not surprisingly, the largest portion of revenues raised came from individual income tax participants ($13.6 million or about 30.5 percent). Although accounting for only 11 percent of the returns, single business tax participants paid in taxes and interest of about $12.4 million (about 27.8 percent of the total). The difference between returns and payments is even more dramatic for use tax participants, who filed only 1.4 percent of the returns but generated 18.9 percent of the total revenue ($8.4 million, and about $12,800 in taxes and interest per return).

1.5   Organization of the Dissertation

The balance of this dissertation is organized as follows. Chapter 2 provides a detailed discussion of the development of noncompliance theory as it relates to this study. Chapter 3 discusses the data used in this study, including collection and construction of the Michigan Amnesty Data Base. Chapter 4 reviews the construction of the primary research data base used in the study and analyzes descriptive statistics related to the data. A description of the research and related statistical methodology considerations are discussed in Chapter 5. Chapter 6 presents the results of the analyses, and Chapter 7 summarizes the findings, discusses the contributions and implications of the results, and comments on potential extensions to the research.

TABLE 1-8

OVERVIEW OF AMNESTY PARTICIPATION AND COLLECTIONS
(Amounts in Thousands of Dollars)

Tax Case Class	Number of Returns	Tax Amount	Interest Amount	Total Amount
Original Cases*	47,175	$37,458.2	$ 7,149.3	$ 44,607.1
Accounts Receivable	81,043	56,980.4	8,206.9	65,187.5
Total	128,218	94,438.6	15,356.2	109,794.6
Amnesty Denied**	6,727	5,180.1	714.1	5,894.2
Amnesty Accepted	121,491	$89,258.5	$14,642.1	$103.900.4

*   "Original Cases" refers to liabilities other than those included in accounts receivable, that is, those which were not previously known or assessed by the Treasury Department.
** A request may have been denied because of failure to pay the full required amount or because the case was not eligible for amnesty.

Source: Michigan Department of Treasury, Fisher, and Goddeeris [1987]

TABLE 1-9

AMNESTY PARTICIPATION BY TAX, EXCLUDING ACCOUNTS RECEIVABLE
(Data Through January 13, 1987)

Tax Type	Number of Applicants	Number of Tax Returns	% of Total Returns	Returns Per Applicant
Individual Income	20,496	32,614	69.13%	1.59
Withholding	606	1,045	2.22	1.72
Intangibles	2,311	5,361	11.36	2.32
Sales	1,037	1,751	3.71	1.69
Use	358	658	1.39	1.84
Single Business	2,487	5,130	10.87	2.06
Diesel Fuel	35	47	.10	1.34
Gasoline	5	7	.01	1.40
Cigarette	8	8	.02	1.00
Miscellaneous	--	554	1.17	--
Total		47,175	100.00%	

Source: Michigan Department of Treasury, Fisher, and Goddeeris [1987]

TABLE 1-10

AMNESTY COLLECTIONS BY TAX, EXCLUDING ACCOUNTS RECEIVABLE
(As of June 19, 1987)

Tax Type	Tax Amount (Audited)	Interest Amount (Audited)	Total Amount (Audited)	Percent of Total Amount	Total Amount Per Applicant	Total Amount Per Return
Individual Income	$11,566.4*	$ 2,041.6*	$13,608.0*	30.51%	$ 663.93	$ 417.24
Withholding	1,084.0	134.7	1,218.7	2.73	2,011.06	1,166.22
Intangibles	5,009.5	865.8	5,875.3	13.17	2,542.32	1,095.93
Sales	2,494.7	379.5	2,874.2	6.44	2,771.65	1,641.46
Use	6,733.2	1,689.3	8,422.5	18.88	23,526.54	12,800.15
Single Business	10,395.5	2,013.4	12,408.9	27.82	4,989.51	2,418.89
Diesel Fuel	87.5	9.8	97.3	.22	2,780.00	2,070.21
Gasoline	11.4	2.3	13.7	.03	2,740.00	1,957.14
Cigarette	11.6	1.8	13.4	.03	1,675.00	1,675.00
Miscellaneous	64.3	11.1	75.4	.17	--	136.10
Total	$37,458.2	$ 7,149.3	$44,607.1	100.00%	--	$ 945.57

* Amounts in Thousands of Dollars

Source: Michigan Department of Treasury, Fisher, and Goddeeris [1987]

CHAPTER 2

THEORY BACKGROUND AND DEVELOPMENT

2.1   The Noncompliance Problem

Academic analysis of the noncompliance problem has been performed on two distinct levels -- (1) determining the size of the problem and (2) determining the causes of noncompliance.

Estimating the Size of Noncompliance.   If we accept the fact that there is a tax gap (as defined in Chapter 1), determining its size is a logical question.   Attempts by economists to estimate aggregate noncompliance using macroeconomic data date to the late fifties and early sixties (e.g., Groves [1958]).   One method developed initially in the United States involves making inferences about tax evasion on the basis of changes in money holdings in the economy over time (Guttman [1977], Feige [1979], Tanzi [1982]).   The results of these studies and others were discussed in Chapter 1.   Although these studies are open to error, they do provide an indirect measure of the extent of tax evasion.   Given the different approaches used to measure the aggregate level of noncompliance, it is not surprising that the estimates differ considerably.

Determining the Causes of Noncompliance.   The noncompliance decision is an intricate and multidimensional problem.   The decision process itself has been the subject of various forms of theoretical modeling.   In fact, research in the noncompliance area began with the development of economic models to try and shed light on the factors which affect the tax evasion decision.   This research, although problematic on several counts, provided a basis for the decision making process.   Proper models, of

course, are predicated on the identification of the salient factors that are a part of this decision making process. More recent research has concentrated on identifying the factors that are important in this process. Factors so identified in research to date can be broken into three major groups -- economic, demographic, and psychological or attitudinal. Various methodological approaches have been used to identify the important factors within these classifications.

Studies which have explored the psychological or attitudinal factors of the noncompliance decision have relied on indirect measures of evasion to identify these factors. The studies have principally used surveys asking about past evasion or about attitudes toward evasion. The validity of these studies depends on the degree to which the pattern of survey responses corresponds to actual behavior.

Studies examining economic and/or demographic factors of the noncompliance decision have focused on using data from the Internal Revenue Service's Taxpayer Compliance Measurement Program (TCMP). The TCMP data base has been used extensively for this purpose. Although there are significant weaknesses involved in using this data, it has been the best available data for identifying these factors.

An Overview of the TCMP. Approximately every four years, the IRS selects a sample of returns for intensive examination. The samples for the TCMP individual surveys are probability samples of taxpayers who filed Form 1040 for the survey year. The samples are stratified by return type (based on level of reported income and whether business or non-business). Approximately 50,000 taxpayers are included in each sample. The returns are selected after math error verification has been completed, but before any other operational enforcement has occurred.

The TCMP surveys consist of intensive audits of the sampled tax returns. Theses audits differ from ordinary operational audits in several respects. First, only experienced IRS examiners audit the returns. Second, every item on the returns is examined. Third, the results of the audits are recorded on special "checksheets" which show the original entries made by the taxpayers side-by-side with the corrected entries as determined in the audit. With appropriate weighting, the sums of the differences for a given Form 1040 line may be considered estimates from the TCMP of noncompliance with respect to the corresponding provisions of the Internal Revenue Code.

The estimates based on TCMP individual surveys assume that the survey to survey results are not affected by changes in examination techniques. The TCMP examinations are conducted under detailed instructions which have not materially changed from survey to survey. The TCMP results may be changed in the IRS internal appeals process, or in the courts. Such changes are not reflected in the TCMP data.

Goals of Compliance Research. There is no doubt that compliance is a serious problem under the current income tax. The problem demands attention, both in theory development and empirical analysis, in order to achieve a better understanding of the problem. Hopefully, theoretical refinements and empirical study will enable us to design better compliance mechanisms and to improve those that already exist.

It is apparent from the prior research in this area that the decision making process is so complex that no one study can expect to properly model the noncompliance decision, or identify all of the salient factors involved in that decision. Instead, proper theory development

depends on numerous studies to come up with a "composite" of this decision making process. Denzin [1978, p. 48] writes:

> I conclude that no single method will ever permit an investigator to develop causal propositions free of rival interpretations. . . multiple methods of observations must be employed. This is termed triangulation, and I now offer as a final methodological rule the principle that multiple methods must be used in every investigation, since no method is ever free of rival causal factors.

Abdel-khalik and Ajinkya [1979, p. 21] concur, stating "[a]ll approaches to research are desirable, although they may have different degrees of strength and reliability." The discussion that follows provides an overview of the economic modeling research to date and the various factors that have been identified as potentially a part of the noncompliance process.

2.1.1   Economic Modeling of the Noncompliance Decision

There is a great deal of work in the area of economics related to compliance by individuals, much of it devoted to the development of models describing the noncompliance decision. The models developed to date can be organized into four main groups: economic models, uncertainty models, norms of compliance models, and inertia models.

Economic Models.   Early studies involved analytic models which attempted to model the compliance decision in terms of the tax rate, the probability of being detected, and sanctions applied if discovered. Allingham and Sandmo [1972] pioneered this effort, and Srinivasan [1973], Yitzhaki [1974], and Farrington and Kidd [1977] all provided extensions of the original work. These studies viewed the taxpayer as a utility maximizer, generally risk-neutral, and perfectly amoral. Within this context, the taxpayer will make a choice not to comply whenever the tax savings is greater than the cost of being discovered (given their

assessment of the probability of detection). In other words, the taxpayer is viewed as a very thoughtful gambler, who carefully chooses an optimal level of evasion in light of the potential penalty that will be paid, and the likelihood of detection.

Although criticized for being too simplistic, (i.e., not taking into account all of the factors involved in the noncompliance decision), these models became the foundation of other model development in the field of economics.

Uncertainty Models. Uncertainty models refine economic models by acknowledging that most taxpayers do not know their audit probability or the potential penalties for tax evasion. Based on a variety of studies, it appears that many taxpayers do not even know their marginal tax rate. Without this basic information, it is impossible for taxpayers to determine either the risk or the reward of tax evasion with any degree of accuracy. Given these major uncertainties, the tax evasion decision is not based on maximizing strategies, but instead on rules of thumb or heuristics (i.e., on the perception of risk as opposed to actual risk (Frieland [1982]; Kahneman, Slovic and Tversky [1982]). For example, experimental research indicates that past experience with audits may bias estimates of audit probabilities. Benjamini and Maital [1985] found that compliance was higher among those taxpayers who were previously audited.

Norms of Compliance. Considerable empirical evidence suggests that social norms (or role expectations) are important factors in the decision to comply or not comply with the tax laws. Those who comply with the tax laws are more likely to view tax evasion as wrong and perhaps even immoral (Schwartz and Orleans [1967]; Ekstrand [1980]; Tittle [1980]; Scott and Grasmick [1981]; Warneryd and Walerud [1982]). Alternatively,

tax evaders are more likely to think that tax evasion is a "victimless crime" and, in general, socially acceptable.

Benjamini and Maital [1985] have noted that tax evasion may be regarded as a free-rider problem. In this context, each taxpayer would prefer that all other taxpayers comply with the tax laws, allowing for the personal evasion of taxes (i.e., taxpayers are only interested in their own position). Commitment to social norms, including the norm of compliance with tax laws, causes the taxpayer to incur a "psychic cost" from evasion and, therefore, reduces the attractiveness of the free-rider option.

Public choice theory suggests that the strength of the commitment to comply is influenced by whether taxpayers believe that other taxpayers are also complying (referred to as a strategy of conditional cooperation). The strategy adopted is "if you pay your taxes, I'll pay mine; but if you cheat, I'll cheat, too." (Van den Doel [1978]; Laver [1981])

It appears that a taxpayer's perception of the overall fairness of the tax system also affects their commitment to comply, although the evidence is mixed in this regard (Spicer and Lundstedt [1976]; Mason and Calvin [1978], Song and Yarbrough [1978]; Yankelovich, Skelly and White, Inc. [1984]). Also, survey research indicates that an individual's commitment to comply with tax laws appears to be part of a broader commitment to their community (and/or country).

Inertia Model. The inertia model focuses on the taxpayer's behavior over a long period of time (assuming that most individuals are creatures of habit). Inertia theory proposes that if taxpayers begin their tax reporting life in compliance with the tax laws, they will remain in

compliance out of "inertia" more than anything else. The only way for this pattern of behavior to change is for a significant event to intervene in their life, changing their behavior and getting them to evade (Spicer [1986]).

The theoretical grounding for this theory comes from psychology, specifically Festinger's theory of cognitive dissonance (Festinger [1957]). The cognitive dissonance theory states that when an individual holds inconsistent beliefs or acts in a way inconsistent with his beliefs, unpleasant feelings arise. These feelings force the individual to change either beliefs or behavior, so that one is consistent with the other. Applying this theory to tax compliance, when a taxpayer first begins to evade, guilty feelings will be prevalent, because actions were inconsistent with beliefs. However, as taxpayers begin to commit more acts of evasion, over time their commitment to social norms of compliance decreases, leading to a tax evasion belief/behavior result (Spicer [1986]).

A Simplified Model of Tax Evasion. Spicer [1986] has formalized a somewhat simple model of tax evasion. An act of tax evasion will be committed only where:

$$(1 - \pi)t\theta y - \pi ft\theta y - pc > 0$$

The taxpayer is viewed as deciding whether or not to commit a particular act of evasion rather than deciding how much to evade. If the taxpayer commits the act of evasion, the taxes evaded will be equal to $t\theta y$, where t is the tax rate that would apply on the unreported income, θ is the fraction of taxable income not reported, and y is taxable income. If the taxpayer commits the act and is caught, a fine is imposed equal to $ft\theta y$, where f is the fine rate imposed on the taxes evaded. The

probability of detection of a particular act of evasion by tax authorities is π. Whether or not the act is detected, however, it is assumed that the taxpayer incurs a psychic cost equal to pc. The psychic cost of committing the act of evasion is due to several factors including a desire to avoid risks, feeling guilty, and other demographic and psychological variables.

From this simple model, it is obvious that as π and f increase, fewer acts of evasion will be committed. Also, a increase in psychic cost will also decrease the incidence of evasion. The effect of an increase (or decrease) in t is somewhat less obvious. However, if psychic cost is assumed to be positive, then certain acts of evasion will not be undertaken (since the psychic cost will offset the financial gain from the evasion). As t increases, the expected financial gain from an act of evasion increases, and may then outweigh the psychic cost. As a result, an increase in t will lead to more acts of evasion. Spicer states that further insight into the noncompliance decision will require a greater specification of the determinants of psychic cost.

Conclusion. More recent models have adopted relaxed assumptions and utilized more sophisticated techniques of analysis. However, it appears that these advancements (to increase realism) have increased the ambiguity of the results. Economic modeling appears to provide the best possibility of understanding the noncompliance decision, and accurate economic modeling requires the identification and validation of the key tax compliance variables that are a part of the decision making process.

2.1.2   Key Tax Compliance Variables

Much research on the noncompliance of taxpayers has focused on whether fear of punishment is a primary motive for complying with tax

laws. This concept is called deterrence. While research findings have been fairly consistent and support the role of deterrence, a theory of noncompliance which focuses solely on punishment is too narrow in scope and is based on an overly optimistic view of the potential of law enforcement.

The Internal Revenue Service has detailed 64 potential compliance factors. Table 2-1 provides a summary of some of these variables categorized into one of three groups -- psychological (or attitudinal), economic, and demographic.

TABLE 2-1

TAX COMPLIANCE FACTORS

Economic	Demographic	Psychological
▪ Level of income	▪ Age	▪ Compliant peers
▪ Type of income	▪ Occupation	▪ Ethics
▪ Tax rates	▪ Gender	▪ Fairness
▪ Cost of compliance	▪ Education	▪ Complexity
▪ Sanctions (penalties)	▪ Race	▪ Sanctions (guilt)
	▪ Marital status	▪ Personal control
	▪ Geographic location	▪ Decision framing
	▪ Contact from authority	

Table 2-2 (Jackson and Milliron [1986]) references 14 of these variables, and notes miscellaneous others, in a chronological listing of 42 compliance studies. The compliance studies are categorized by type of research: survey, experimental, or analytical. The table indicates whether increasing the magnitude of the compliance variable is positively associated with compliance (+), whether increasing the magnitude is negatively associated with compliance (-), or whether the results are indeterminate (0).

TABLE 2-2

RELATIONSHIP OF KEY VARIABLES TO TAX COMPLIANCE

SURVEY STUDIES

Author/ Date	Age	Gender (Fem)	Educat-ion	Income Level	Wth'hld Income Source	Occupa-tion/ Status	Com-pliant Peers	Ethics	Fair-ness	Com-plexity	Agency Contact	Sanc-tions	Probab. of Detect.	Tax Rates
Spicer, 1974	0		0	0	0	0	+	+	+		-	0	0	
Vogel, 1974	+	+	-			-	+	0		-				0
Mason & Calvin, 1974	+	+		+		0			0			0	+	
Song & Yarbrough, 1978	0	0	+	+		0	+		+		0		+	
CSR (Aitken & Bonneville), 1980	+	+	-			+			-					
Grasmick & Green, 1980							+	+				-		
Tittle, 1980	+	+	-			-	+	+	0			+	+	
Westat, 1980(a)						-	+		+	0				
Westat, 1980(b)	+	0	-	-	+	-	+	+		0				0
Hotaling & Arnold, 1981	0		0	+	-								0	
Richards & Tittle, 1981		+											+	+
Scott & Grasmick, 1981							+	+	+			+	+	
Scott & Grasmick, 1982				0			+	+	+			+	+	
Warneryd & Walerud, 1982	+		-			-		+	+				+	0
Furnham, 1983								+						
Groenland & vanVeldhoven, 1983	+	0	-	-		+	+							
Grasmick, Finley and Glaser, 1984	+	0 +				+								
Mason & Calvin, 1984				+			+	+	+				+	-
Thurman, St. John, & Riggs, 1984	+	0						+				+		
Yankelovich, Skelly & White, 1984	0	0	0	0		0		+	0	0	0	0	0	0
Wallschutzky, 1984	-		+		+		+				+			-

+ Positively associated with compliance
- Negatively associated with compliance
0 Link to compliance is indeterminate

Multiple symbols indicate that the association with compliance differs for different segments of the taxpayer population.

Source: Jackson and Milliron [1986]

TABLE 2-2 (CONTINUED)

EXPERIMENTAL STUDIES

Author/ Date	Age	Gender (Fem)	Education	Income Level	Wth'hld Income Source	Occupa- tion/ Status	Com- pliant Peers	Ethics	Fair- ness	Com- plexity	Agency Contact	Sanc- tions	Probab. of Detect.	Tax Rates
Schwartz & Orleans, 1967			+			+		+				+		
Friedland, Maital, and Rutenburg, 1978	+	-		-								0	0	-
Spicer & Becker, 1980	0	+		0				0	+					-
Friedland, 1982												0	0	
Spicer & Thomas, 1982													0	
Chang, 1984			-	0		0	0	+	0		-	+,0		
Jackson & Jones, 1985	0	0		0								0	0	
Milliron, 1985	0	0	0	0					0	+				
Spicer & Hero, 1985		+					0				+		+	
Kaplan & Reckers, 1985	+			0				+	0					

ANALYTICAL STUDIES

Author/ Date	Age	Gender (Fem)	Education	Income Level	Wth'hld Income Source	Occupa- tion/ Status	Com- pliant Peers	Ethics	Fair- ness	Com- plexity	Agency Contact	Sanc- tions	Probab. of Detect.	Tax Rates
Allingham & Sandmo, 1972				-								+	+	+
Groves, 1958					+									
Srinivasan, 1973													+	+,-
Yitzhaki, 1974														0
Mork, 1975				-	+									
Clotfelter, 1983	+,-			-	+					-				-
Cox, 1984														0
Cowell, 1985					+							+,-	+,-	+,-
Witte & Woodbury, 1985	+		+	+,-		+					+	+	+	
Hadeo, Schepanski, & Uecker, 1985				+	+							+	+	0

+ Positively associated with compliance
- Negatively associated with compliance
0 Link to compliance is indeterminate

Multiple symbols indicate that the association with compliance differs for different segments of the taxpayer population.

Source: Jackson and Milliron [1986]

2.1.3   Discussion of Economic and Demographic Factors

Although all three categories of factors are an important part of the noncompliance decision, only certain economic and demographic variables will be analyzed in this study. A review of previous research related to the variables of interest follows.

Gender. Most studies to date have determined that men are generally less compliant that women. Mason and Calvin [1984] through a personal interview survey of 800 Oregon adults found men significantly more likely to evade. Of those who admitted any one form of evasion (overstatement of deductions, underreporting of income, and failure to file) 57 percent were men. They also concluded that the proportion of women who did admit an act of evasion was substantially higher than the proportion of women who are charged with other forms of crime. Spicer and Hero [1985] in a lab experiment using 36 University of Colorado undergraduate students found that men tended to evade more taxes than women.

Tittle [1980] has proposed that part of the reason for this difference is attributable to women's roles as conformers, a more conservative lifestyle, and better morals. More recent research has attempted to focus on why a difference exists. Grasmick, Finley and Glaser, in a 1984 study, classified women as traditional or nontraditional, and then, controlling for age compared these groups to males in terms of self-reported involvement in illegal behavior. Their results conclude that the level of anticipated criminality among nontraditional females approaches the level among males in only one category -- economic offenses (including illegal gambling and tax cheating).

Several studies have found no difference between men and women. Song and Yarbrough [1978] in a survey of about 300 residents in a North Carolina city found no difference between the tax ethics of males and females. Other survey research has yielded similar inconclusiveness (see, for example, Westat [1980(b)]; Yankelovich, Skelly, and White [1984]).

Since the more recent studies have generally found no significant difference between men and women, it may be that the differences noted in the earlier studies may be vanishing. One study, in fact, has found females to be less compliant. However, Friedland, Maital & Rutenburg [1978] evaluated undergraduate Israeli students, and as a result, this finding is not likely to apply to women in the United States.

Income Level. Income level (usually defined as adjusted gross income or total positive income) has been used to explain tax evasion because of the belief that it affects the opportunity to underreport income. This certainly is the case for income from nonwithholding sources (e.g., self-employment, certain interest, rentals, etc.), and these types of income are likely to be concentrated among the affluent. However, much of the research results to date conflict -- not only as to whether level of income is a significant compliance variable, but also which type of taxpayers are more likely to evade -- high income or low income.

Groves [1958] estimated that Wisconsin landlords and farmers underreported their income by as much as 50 percent and 25 percent, respectively. However, many low-paying occupations also furnish sources of nonwithholding income (e.g., certain service workers -- maid, child care, etc.).

Clotfelter [1983], in a study of TCMP data, found that income level had a significant effect on income underreporting, with noncompliance increasing with income. Allingham and Sandmo's initial tax evasion model [1972] reached the same conclusion. Friedland, Maital, and Rutenberg [1978] came to the same result in a simulation study of income tax evasion.

Other research has found no significant effect between level of income and noncompliance. In many of these cases, the researchers have concluded that there is an effect, but that it is curvilinear, with middle income taxpayers very compliant, and low and upper income taxpayers noncompliant (see, for example, Witte and Woodbury [1985], Mason and Lowry [1981], Grasmick and Scott [1982], Spicer [1974], and Spicer and Becker [1980]).

If, in fact, there is a curvilinear relationship between income level and noncompliance, the data must be transformed prior to the use of linear models. Without such a transformation, results may be indeterminate or only find a significant relationship with one segment or the other. Most researchers have strongly suggested an examination of the data prior to analysis to see if such a transformation is warranted.

Other research has concluded that income level alone is not a significant variable, but may be significant when coupled with occupation and income source (i.e., differing income levels are associated with different types of income earned). Frank and Dekeyser-Meulders [1977] found that high income professionals in Belgium had the opportunity to evade because of the type of income they earned (cash sources; self-employment). They found that low income taxpayers derived the majority of their income from sources where there was withholding of taxes, and

had less of an opportunity to evade. This concept of "opportunity" was carried over to the United States in survey research by Yankelovich, Skelly, and White [1984]. The researchers built an opportunity variable with occupation (self-employed, business, professional, or sales), income level ($30,000 or greater), and access to cash income sources as characteristics. Their research found a significant and positive relationship between opportunity and noncompliance.

Occupation. The occupation of a taxpayer has been associated with the compliance decision longer than any other variable. Originally, noncompliance was associated with only professionals and taxpayers with high levels of income (i.e., only those occupations with high income levels were associated with noncompliance). However, in today's society, because of the many different occupations, sources of income, and income levels where tax is applied, earlier associations can no longer be relied upon.

Research to establish a link between occupations and compliance has not yet reached a consensus. Westat [1980(b)], in a survey of 500 taxpayers, concluded that the occupational categories of professional, sales, management/executive, and certain service occupations were associated with low levels of compliance, and blue-collar employees (generally, trade unions) were associated with higher compliance levels. Witte and Woodbury [1985] found taxpayers employed in manufacturing positions to be more compliant.

On the other hand, Song and Yarborough [1978] found no difference between compliance and employment status. And, of the three types of noncompliance they evaluated (overstatement of deductions, underreporting

of income, and failure to file) Mason and Calvin [1978] found "occupational prestige" only associated with failure to file.

Enforcement Agency Contact. Contact by the enforcement agency, in the form of letters requesting additional information, notices of correction, telephone inquiries, or audits, has received a great deal of interest over the past few years.

Some research has led to the conclusion that as contact increases, compliance decreases. Spicer and Lundstedt [1976] concluded that taxpayers who had been audited were more likely to evade than other taxpayers. The reason for this relationship was not entirely clear, but they felt that suffering the penalties or embarrassment of an audit might lead to increased resistance to the tax laws and more evasion. Strumpel [1969] in an evaluation of European countries, noted that stringent assessment (a form of punishment) may lower compliance and willingness to cooperate.

On the other hand, Witte and Woodbury [1985] determined that audits result in increased compliance, and noted that the reduction of IRS personnel devoted to audit and other taxpayer contact activities has led to increased noncompliance. Spicer and Hero [1985] found that after an audit, taxpayers are more compliant because of concerns over being audited again, feeling that they will be watched more closely because of their past noncompliance. They concluded that random audits would lead to significantly higher levels of compliance among those audited.

Westat [1980(b)] had mixed results in its analysis of TCMP data. Although the analysis showed a significant increase in reported income and related tax payments in taxpayers recently audited, the compliant reporting behavior returned to pre-audit levels within three years. In

addition, in a survey of taxpayers who had contact with the IRS, Westat found that about 70 percent of taxpayers were more conscientious after the audit, while the other 30 percent stated that they became more aggressive.

Tax Rates. It seems logical to conclude that as the rate of tax on income increases, the compliance level will decrease. Tax legislation over the past few years (particularly the Tax Reform Act of 1986) has adopted this logic to a certain degree. In an attempt to increase compliance, the TRA of 1986 dramatically reduced marginal tax rates and eliminated various deductions. Because of Congressional attempts to increase compliance, and discussions about instituting a flat tax system, academic researchers have included this variable in numerous studies.

Allingham and Sandmo [1972] in their model of the compliance process that, for a risk-neutral individual, maximization of expected utility implies that evasion will tend to increase as marginal tax rates increase. Srinivasan [1973] generally supports this proposition.

Clotfelter [1983], in a study of TCMP data, concluded that there was an increasing level of noncompliance as tax rates increased. The elasticities he reported indicated that a 10 percent cut in the tax rate would lead to a 5 percent to 8 percent increase in reported income. Cox [1984] however, argues that Clotfelter's finding may be a reflection of level of income rather than tax rates. Since a taxpayer's marginal rate is determined by the level of income, the results could be interpreted as showing that compliance decreases as income increases.

Influence of Tax Return Preparers. According to the Department of Treasury, over 40 percent of all individual taxpayers use professional preparers [Department of the Treasury (1985)]. A logical question is

what impact, if any, these individuals have on compliance. Empirical research to date has been inconclusive. Westat [1980(b)], however, reported a significant and positive impact on compliance among taxpayers who used professional return preparers.

In a recent study, Long and Caudill [1987] reported that upper-income, elderly, and self-employed taxpayers are more likely to use a tax return preparer than other taxpayers. In addition, their study showed that professional tax return assistance is directly related to the complexity of the tax return and the marginal tax rate. Finally, the income tax liability of taxpayers who used tax return preparers was significantly lower than self-prepared returns with the same income, filing status, and other characteristics.

Geographic Location. Geographic location of the taxpayer has also been posited as part of the noncompliance decision. Clotfelter [1983] analyzed six major regions of the country using TCMP data and found that for non-farm returns, compliance was best in the northeast and central region, and worst in the west, southwest and southeast regions. For farm returns, the midwest and the southeast had the lowest levels of compliance. Witte and Woodbury [1985] (also using TCMP data) concluded that higher levels of noncompliance were associated with areas of high unemployment and poverty, in better educated areas, and in areas with large student populations. In addition, they concluded that noncompliance was lower in middle class areas generally inhabited by whites.

2.1.4 Conclusion

As is evident from the previous discussion, and the information in Table 2-2, there is little agreement in the literature regarding the relative salience of identified compliance factors and the manner in which these variables are related to tax compliance. Additional research is needed at both the theoretic and empirical levels. Empirical testing of the factors that affect the noncompliance decision is needed to determine which are a part of the decision making process.

2.2 Methodological Considerations - Extensions of Analytical Research

Given the present state of analytic tax compliance research, it appears that efforts in shaping a proper tax compliance model should be directed towards two areas:

1. Refining methods of building models, and

2. Testing factors against empirical data.

Refining Methods of Building Models. Allingham and Sandmo [1972] were the first to build a basic model of tax compliance, built around a risk-neutral, utility maximizing individual. They conclude their research by acknowledging the simplicity and inadequacy of their tax behavior model. They then encourage other academic economists to expand the model in a number of areas, including labor supply, or taking the model into the area of optimal taxation theory. In 1985, Cowell took the basic Allingham and Sandmo model and analyzed labor supply under uncertainty, establishing a framework for discussing various evasion opportunities and related enforcement actions.

Testing Hypothesized Noncompliance Factors Against Empirical Data.
Progress in this area started with Mork [1975], who took the economic
models of Allingham and Sandmo [1972] and Srinivasan [1973], and
empirically tested them using income tax data from Norway. From this
analysis, he concluded that relative risk aversion is a decreasing
function of income.

In the last few years, analytical models have been tested against
TCMP data (see, for example, Clotfelter [1983], Witte and Woodbury
[1985], and Madeo, et al. [1985]). The findings of the Clotfelter and
Witte and Woodbury research have been previously discussed in this
chapter. The Madeo, et al. [1985] research involved the construction of
a judgment model of taxpayer behavior based on a survey of certified
public accountants in attendance at a continuing education seminar.
Based on these responses, the model included variables for income level,
income source, tax penalties, and tax rate structure. Subsequent to
construction, the model was tested against TCMP data and yielded a .92
correlation. Their conclusion was that CPA tax professionals have a
great deal of insight when it comes to properly modeling the compliance
process.

The Next Generation of Analytical Research. The next generation of
analytical research can best be summarized in the following researcher's
comments:

> "Progress in theoretical research may depend on stratifying
> taxpayer groups before performing the economic analyses. Such
> stratification depends on defining relevant segments of the
> taxpaying population, identifying their risk behavior, and
> measuring the gains and penalties they face when contemplating
> noncompliance."
>
> Witte and Woodbury [1985, p. 10]

"Further advances in the economic modeling of noncompliance decisions appear to be predicted on increased behavioral realism of the factors involved in the noncompliance decision. This added insight, necessary to develop more meaningful models, is likely to be obtained either through analysis of taxpayer data bases (such as the TCMP file research of Clotfelter [1983] and Witte and Woodbury [1985]), or behavioral lab studies (such as the research of Chang [1984] and Jackson and Jones [1985])."

                                        Jackson and Milliron [1986, p. 30]

This study is designed to provide added insight into the factors that are a part of the noncompliance decision. It is hoped this insight will be beneficial in advancing the economic modeling of this intricate decision making process.

CHAPTER 3

DATA COLLECTION, CREATION OF DATA BASE, AND LIMITATIONS OF DATA

3.1   Data Collection - In General

During the amnesty program, almost 75,000 taxpayers (henceforth called "amnesty taxpayers") filed tax returns. As part of the processing procedures, the submitted returns were reviewed by Department of Treasury staff for computational accuracy. However, no other procedures were performed during this process (i.e., the returns were not audited or reviewed with the intention of challenging the disclosed information).

There was, however, a desire by the Department of Treasury to investigate the participants further. As a result, 10 percent of all amnesty taxpayers were randomly selected in order to collect information available in the materials (primarily tax returns) submitted by these taxpayers. This information would be compiled in a data base, and made available to the Department of Treasury and academic researchers for further analysis.

The data collection efforts, and construction of the Michigan Amnesty Data Base (MADB) are the topics discussed in this chapter. Although there is a great deal of information in the MADB, the amnesty materials submitted by taxpayers are the only source of information in the data base at the present time. As mentioned above, the submitted tax returns were checked only for computational errors, and the data base provides this information. It is possible, however, that amnesty taxpayers disclosed only a portion of their unreported income. There is no way of assessing the level of this nondisclosure.

42

Under the amnesty program, taxpayers with accounts receivable outstanding were allowed to pay these amounts without additional filings. Although these taxpayers were included in the 10 percent random sample, there was very little information to be collected from the amnesty materials. As a result, these taxpayers were set aside during the data collection efforts.

Sample Selection. Two amnesty return samples were selected during the amnesty program:

1. Random Sample: A random sample of every tenth taxpayer who filed for amnesty was selected. Taxpayers who filed for amnesty were required to submit an amnesty application form and related returns. Each package was processed, batched, and dated by the Department of Treasury during the amnesty program. The 10 percent sample was drawn from these processed amnesty filings, and the data base constructed from these returns is known as the Michigan Amnesty Data Base (MADB).

2. Large Tax Paid Sample: In addition to the random sample, the following returns also have been selected and separately coded:

   a. All taxpayers with individual income tax payments of $10,000 or more,
   b. All taxpayers with single business tax payments of $20,000 or more, and
   c. All taxpayers with sales/use tax payments of $20,000 or more.

Although the large tax paid sample may be of interest for future research, it has been set aside for the present. This study uses the individual income tax portion of the MADB as the basis for constructing an appropriate individual research data base. Since this study is limited to individual income tax returns, the discussion of data collection and entry procedures used in constructing the Michigan Amnesty Data Base is limited to those returns.

A summary of all the returns filed under amnesty, and the 10 percent MADB sample (excluding accounts receivable participants) is presented separately as Table 3-1. As can be seen from the table, there are 2,985

individual income tax returns in the MADB sample. Table 3-2 presents a summary of amnesty collections by type of tax for the entire amnesty program, and the 10 percent MADB sample (again, excluding accounts receivable participants). The returns in the sample were segregated by the Department of Treasury during completion of the MADB. Subsequent to data collection and coding, the Department of Treasury filed all returns filed during amnesty with non-amnesty returns. The amnesty applications were destroyed.

TABLE 3-1

AMNESTY PARTICIPATION BY TAX, EXCLUDING ACCOUNTS RECEIVABLE

Tax Type	Entire Amnesty Program			Michigan Amnesty Data Base		
	Applicants	Tax Returns	% of Returns	Applicants	Tax Returns	% of Returns
Individual	20,496	32,614	69.13%	1,948	2,985	71.02%
Withholding	606	1,045	2.22	37	65	1.55
Intangibles	2,311	5,361	11.36	230	511	12.16
Sales/Use	1,395	2,409	5.10	114	222	5.28
Single Business	2,487	5,130	10.87	207	420	9.99
Miscellaneous	--	616	1.30	--	--	--
Total		47,175	100.00%		4,203	100.00%

TABLE 3-2

AMNESTY COLLECTIONS BY TAX, EXCLUDING ACCOUNTS RECEIVABLE

Tax Type	Entire Amnesty Program		
	Tax Amount (Audited)	Interest Amount (Audited)	Total Amount (Audited)
Individual	$11,566.4*	$ 2,041.6*	$13,608.0*
Withholding	1,084.0	134.7	1,218.7
Intangibles	5,009.5	865.8	5,875.3
Sales/Use	9,227.9	2,068.8	11,296.7
Single Business	10,395.5	2,013.4	12,408.9
Miscellaneous	174.8	25.0	199.8
Total	$37,458.2	$ 7,149.3	$44,607.1

Tax Type	Michigan Amnesty Data Base		
	Tax Amount (Audited)	Interest Amount (Audited)	Total Amount (Audited)
Individual	$ 1,292.1*	$ 213.9*	$ 1,506.0*
Withholding	73.8	14.0	87.8
Intangibles	351.0	80.0	431.0
Sales/Use	838.7	150.7	989.4
Single Business	1,199.8	315.0	1,514.8
Miscellaneous	--	--	--
Total	$ 3,755.4	$ 773.6	$ 4,529.0

* Amounts in Thousands of Dollars

Returns not a part of the MADB or the Large Tax Paid samples also were separated from the amnesty application and filed with non-amnesty returns. The amnesty applications were shredded. Some general information regarding the nonselected returns remains in the Department of Treasury computer system [e.g., taxpayer name and address, identifier, type of tax, return year(s), tax paid, and interest paid]. No other information is readily available for these taxpayers, although the actual tax returns filed during amnesty could be requested if needed.

As mentioned in Chapter 1 (Table 1-9), 20,496 taxpayers filed for individual income tax amnesty. Of these taxpayers, 2,115 were included in the original 10 percent random sample. Data was collected from 1,948 of these taxpayers. Information from the remaining 167 taxpayers was not collected for a variety of reasons. Some of these taxpayers filed for amnesty and owed no tax liability, and any information submitted with the amnesty application was often destroyed. Other taxpayers were denied amnesty and, therefore, excluded from the data collection process.

Based on comparisons between data in the final individual income tax data base (IITDB) and the population of amnesty participants (as detailed in Table 3-3), the IITDB appears to be representative of the population of all individual amnesty taxpayers.

Table 3-3 provides two sets of comparisons. The first part of the table compares the table compares the distribution of amnesty payments by size, detailing the percentages of the amnesty population and amnesty taxpayers in the IITDB making payments in the specified dollar ranges. Based on a review of this information, it appears that the IITDB and population of all individual amnesty taxpayers are similar. The only significant difference between the population and the IITDB is for

amnesty payments of $100 or less. This difference could be due to the fact that taxpayers who owed no amnesty tax were excluded from the IITDB, although part of the original 10 percent sample.

The second part of the table examines the number of years filed by amnesty taxpayers in the population and IITDB. This information also appears to be similar, with the only significant difference being that the IITDB does not include as many taxpayers who filed for 10 or more years.

TABLE 3-3

INDIVIDUAL AMNESTY INCOME TAX PARTICIPANTS: COMPARISON OF DATA BASE TO TOTAL POPULATION

Percentage Distribution of Amnesty Payments by Payment Size

	Range (In Dollars)				
	$100 or or Less	$100.01 to $500	$500.01 to $1,000	$1,000.01 to $10,000	More Than $10,000
Population	38.7	37.2	10.6	12.9	0.68
IITDB	34.0	38.4	12.1	14.6	0.88

Percentage Distribution of Number of Years for Which Amnesty Was Filed

	Number of Years			
	1	2 to 4	5 to 9	10 or More
Population	71.0	25.0	3.7	0.34
IITDB	72.5	23.7	3.7	0.15

Source: Goddeeris, Martin, and Young [1988].

Summary. The IITDB appears to be representative of the population from which it was drawn. Although the data base provides a great deal of information about certain amnesty participants (i.e., those participants without outstanding accounts receivable balances prior to amnesty), the

IITDB only includes information on these <u>amnesty participants</u>. It does not include information on tax evaders who chose not to participate in the amnesty program. These evaders may have different characteristics than those amnesty taxpayers in the IITDB. Therefore, the make-up of the IITDB may not be reflective of all tax evaders in Michigan.

<u>Construction of the Michigan Amnesty Data Base</u>. A separate data base has been constructed from the 10 percent random sample for each of the tax types identified in Table 3-1. These separate data bases (which in total make up the Michigan Amnesty Data Base) can be linked (using a special identifier developed by the Department of Treasury) across tax types. The data bases consist of 2 sets of variables:

1. <u>Common variables</u> - variables consistent across all types of tax, and

2. <u>Unique variables</u> - variables unique to a type of tax.

Composition of the data bases was determined based on previous academic research and in discussions with Treasury Department officials over a six week period during July and August 1987. Data collection occurred at various times during the months of August, September, October, and November 1987. A more detailed discussion of the variables selected for the individual income tax data base and the data collection procedures related to that portion of the Michigan Amnesty Data Base follows.

<u>Purpose of Data Base</u>. The Michigan Amnesty Data Base is intended to benefit both the Department of Treasury and academic researchers. The Department of Treasury will be using the data base to provide descriptive information about amnesty filers, refine their audit selection process, and target their enforcement efforts.

Academic research (including this dissertation) will investigate various factors that are a part of the noncompliance decision process. A natural extension of this research will be an attempt to model the noncompliance decision process. During this research, additional variables were not sought for the taxpayers that are a part of the Michigan Amnesty Data Base. In future research, other sources of information may be brought into the research process (e.g., TCMP data, additional Department of Treasury information, other states which have run amnesty programs).

The Department of Treasury has committed itself and its resources to understanding the noncompliant taxpayer. To that end, the Department is in the process of developing a policy regarding approval of academic research projects using the Michigan Amnesty Data Base or other data. As part of this process, the Department has developed a new identifier for each taxpayer in the data base. This will protect the identity of taxpayers that are a part of the data base and allow future researchers to request additional Department of Treasury information not in the data base regarding these taxpayers. Such a policy would allow, for example, time series analysis of these taxpayers.

3.2 Individual Tax Returns Variable Selection and Data Collection

3.2.1 Determination of Variables

Based upon a review of previous academic research in the fields of accounting and economics, a list of variables to be collected for the IITDB portion of the MADB was submitted to the Department of Treasury for their review. This preliminary list was discussed with the Commissioner of Revenue and circulated to the Individual Income Tax Division for their

review and analysis. Based upon these discussions and review, a final list of variables was developed.

A process similar to that discussed above was followed for intangibles, single business, sales, and use taxes. For each tax type, a list of variables unique to the tax was developed. In addition, variables common across tax types were identified. A list of the common variables and unique individual income tax variables is presented in Figure 3-1.

FIGURE 3-1

MICHIGAN AMNESTY DATA BASE: INDIVIDUAL INCOME TAX RETURN VARIABLES

COMMON VARIABLES FOR ALL TAX RETURNS

1. Taxpayer ID Number(s)
2. Zip Code
3. Type of Tax [1]
4. Tax Return Year
5. Amnesty Tax Paid, As Audited
6. Interest Paid, As Audited
7. Prior to Amnesty Period,
   No Acceptance Letter Sent
8. Does return contain a letter
   concerning amnesty?

UNIQUE VARIABLES - INDIVIDUAL RETURNS

VARIABLES COLLECTED FROM ALL RETURNS:

9. Occupation - Taxpayer
10. Is taxpayer self-employed?
11. Is SE income primary or
    secondary?
12. Occupation - Spouse
13. Is the spouse self-employed?
14. Is SE income primary or
    secondary?
15. Residency
16. Filing Status
17. Gender (Single/MFS returns only)
18. Exemptions
19. Adjusted Gross Income (AGI)
20. Additions
21. Subtractions
22. Taxable Income
23. Tax
24. Tax Withheld
25. Estimated Tax Payments
26. Balance Due
27. Is a W-2 present?
28. Treasury Department letter re:
    no state tax return filed
    present?
29. Preparation of return
30. 1986 individual return filed?

Note: Items 31 and 32 collected from returns that were NOT "amended".

31. Additions to Income:
    - Non-MI municipal interest
    - Capital gains
    - Losses from other states

32. Subtractions from Income:
    - US government interest
    - Military benefits
    - Retirement benefits
    - Income from other states

PROPERTY TAX CREDIT INFORMATION: The following information was collected from MI-1040CR, if available.

33. Rent or own home
34. Salaries, wages, tips, etc.
35. Interest and dividends
36. Rent, royalty, business income
37. Annuity and pension benefits
38. Net farm income
39. Capital gains less capital
    losses
40. Alimony, other taxable income
41. Child support
42. Worker's compensation
43. Household income
44. Property taxes paid
45. Rent paid

FIGURE 3-1 (Continued)

VARIABLES COLLECTED FROM AMENDED RETURNS[2]:

Note: The following amounts are as ORIGINALLY REPORTED.

46. Residency
47. Filing Status
48. Exemptions
49. Adjusted Gross Income
50. Additions
51. Subtractions
52. Taxable Income
53. Tax Liability
54. Property Tax Credit
55. Tax Withheld
56. Estimated Tax Payments

Note: The following amounts are detailed.

57. Amount paid with original return
58. Refund shown on original return
59. Reason for change in number of exemptions

Note: The following information was inferred from reading Part VII of MI-1040X.

60. AGI Errors (maximum of 2) [3]
61. Addition Errors (maximum of 2) [4]
62. Subtraction Errors (maximum of 2) [5]
66. Reason for amended return was IRS audit

FOOTNOTES

[1] **Tax Type:** 01=Accounts Receivable; 02=Individual; 03=Single Business Tax; 04=Intangibles; 05=Sales; 06=Withholding; 07=Inheritance; 08=Miscellaneous; 09=Use

[2] Amended returns are defined as those with some nonzero numbers in column A of the MI-1040X.

[3] **AGI Error Codes:** 1=Wages; 2=Interest or dividend income; 3=Rent or net business income; 4=Capital gain or loss; 5=Other

[4] **Addition Error Codes:** 1=Non-MI municipal interest; 2=Capital gains; 3=Losses from other states; 4=Other

[5] **Subtraction Error Codes:** 1=Income from US government obligations; 2=Military benefits; 3=Income from other states; 4=Retirement benefits; 5=Other

3.2.2   Data Collection Procedures and Verification of Data

Data Collection Planning.   After the final list of variables had been identified, data collection procedures were analyzed. A two-step data collection process was proposed and accepted by the Department of Treasury. First, a team of individuals selected by the Department would transfer the data from the returns to a document. Second, the data collected would be entered from the data collection documents into a data base by data entry personnel.

Although it would have been possible to collapse this two-step process into a single step (i.e., having the individuals collecting the data enter it directly into the data base, thereby eliminating the process of transferring the data from the tax returns to a collection form), it was felt that the two-step process provided added benefits. First, upon completion of data collection, a separate copy of the data remains. Second, the two-step process made verification of the data collected easier.

A four page data collection document was drafted and printed. In order to ensure that data was drawn in a consistent manner from the returns selected, a data collection procedures memorandum was drafted that explained the data collection process. In addition to a line by line discussion of the data collection document, the memorandum included Michigan income tax returns from 1978 to 1984 coded to match the data collection document. This provided a visual means of assisting the data collection efforts, allowing the personnel to match the return selected to a coded return form. By laying the actual tax return next to the coded return, information to be collected could be easily identified and matched to the data collection document.

Data Collection. The Department of Treasury selected ten individuals to collect the data under the supervision of the author, John Goddeeris (Associate Professor, Department of Economics), and Stan Borawski (Michigan Department of Treasury). The staff consisted of five individual income tax auditors (average experience of ten years), and five student interns. A conference room in the Treasury Building was used for data collection, and the individuals were seated around two large conference tables. Student interns were placed in between the auditors and encouraged to ask the auditors for assistance, if needed. In addition, all were encouraged to ask questions.

A two hour training session took place on the first morning of data collection. In addition to reviewing the data collection memorandum and related documents, information from several practice returns were coded onto data collection documents by the individuals. As part of the training session, the quality of the data collection efforts was emphasized. In addition, as time was not a factor, the personnel were encouraged to be careful and consistent in their data collection efforts. As a follow up to the training, question and answer sessions were held each morning during data collection.

Three different forms of quality control took place during data collection. First, at the close of each morning and each afternoon, the data collection personnel took 20 minutes to review another person's collection efforts. Returns were randomly selected and pertinent information was traced from the return to the data collection document. Errors found were corrected, and if a systematic error occurred, the error was pointed out. After each of these reviews, personnel were asked if they had any questions or had noted anything that would be relevant

for the group. Second, on several evenings, the supervisors randomly selected returns for comparison to the related data collection document. Few errors were noted during this process, and those discovered were corrected. Finally, the five student interns performed an overall quality review, spending four hours randomly selecting returns and comparing tax return information to the related data collection document.

In all, over 850 hours were spent collecting and reviewing the information during eight working days.

Data Entry. Upon completion of data collection, four data entry specialists were chosen by the Treasury Department to load the collected data into the data base. In preparation for this process, a second memorandum was written. The memorandum briefly explained the Michigan Amnesty Data Base and the type of information that is part of it. It also contained a detailed explanation of the data entry process, verbally explaining the process and visually correlating the data collection document to the computer screens within the data base.

A two-hour training session was held with the data entry personnel on the first day of data entry. The session included a verbal explanation of the process, a review of the memorandum, and an hour of practice loading dummy data into a data base that replicated the actual data base.

Data entry took place over a five day period. A quality review was performed daily, examining data entered on the previous day for errors, duplications, and/or omissions. After completion of the data entry, every twentieth record in the data base (5 percent) was printed out and compared to the related data collection document for errors. Errors noted during both of these quality reviews were generally minor.

However, based on the review of the 5 percent sample, several errors were noted in the amended return data of one of the data entry clerks. As a result, all amended return information entered by this individual was printed out and compared to the corresponding data collection documents. The systematic error that had been noted in the initial 5 percent sample did not replicate itself in the other records.

Summary. The training sessions with staff, participative management of the project, and the many quality control reviews established have served to create a data base which is reflective of the entire population of amnesty filers in Michigan. As previously mentioned, the individual portion of the Michigan Amnesty Data Base was used as the basis for constructing an appropriate research data base. During the construction of the research data base, a detailed review of the selected data was performed prior to analysis. This review, accomplished by the use of descriptive statistics, a general review of the data, and tracing questionable items back to the Department of Treasury files, yielded 133 errors in 44,598 data points. The noted errors were corrected prior to analysis. Chapter 4 contains a more detailed discussion of this review.

A complete copy of the various documents and memoranda used in the data collection and coding process can be found in Appendix A.

3.3 The Advantages and Limitations of the Michigan Amnesty Data Base

The most significant advantage of Michigan Amnesty Data Base over Taxpayer Compliance Measurement Program (TCMP) data is the inclusion of information from taxpayers omitted from the TCMP (i.e., taxpayers who had not filed returns previously and taxpayers who had not made a full disclosure of income). It appears that the MADB is unequaled as a source

of data on amnesty participation and effects. Most analyses of state tax amnesty programs published over the past few years rely on aggregated data provided by state revenue agencies (see, for example, Mikesell [1986]; Parle and Hirlinger [1986]). These analyses provide very little detail about the various types of noncompliance uncovered during amnesty or their relative importance.

Michigan appears to be the only state to have committed the resources necessary to compile detailed information on amnesty participants. The data contained in the MADB provides a unique opportunity to analyze the various factors that are a part of the noncompliance decision for amnesty participants.

Although these are significant improvements, several comments regarding the limitations of the data base also are warranted. These limitations may ultimately lead to an expansion of the data contained in the Michigan Amnesty Date Base. In addition, these limitations provide some guidance for future research.

First, the data base includes only taxpayers from Michigan. Generalizability of research findings using this data to the national population is not warranted without further investigation and analysis. Although this limitation applies to this study, it is interesting to note that most of the noncompliance behavioral research done to date has used geographic-specific data. Second, as previously mentioned, the taxpayers in the data base are a subset of all tax evaders and delinquent taxpayers (i.e., those evaders who chose to disclose themselves during the amnesty program). In addition, it does not necessarily include all the taxable income of amnesty taxpayers (i.e., these amnesty participants may have chosen to disclose only a portion of this income). It may be that the

MADB is not representative of all tax evaders in Michigan. Finally, the data base does not include any psychological or attitudinal variables related to the noncompliance decision.

CHAPTER 4

CREATION OF THE RESEARCH DATA BASE AND A DESCRIPTIVE ANALYSIS OF THE DATA

4.1   An Overview of the Individual Tax Participant

Table 4-1 provides descriptive statistics on Michigan individual income tax amnesty participants. These statistics are derived from the 1,948 taxpayers and 2,985 returns included in the individual income tax data base (IITDB). A complete descriptive analysis of the IITDB on a taxpayer basis has been performed and may be consulted if additional information is needed (Goddeeris, Martin, and Young [1988]). Table 4-1 is a summary of that analysis.

For each of several variables, the mean and standard deviation are presented. In addition, this information is compared to data on the population of 1984 individual income taxpayers provided by the Michigan Department of Treasury. The table also includes information on the number of years filed for amnesty, the number of exemptions claimed, a percentage distribution of the filing status indicated, and for single taxpayers, the percentage of males.

The average total amnesty tax payment (combining all years for which the taxpayer filed) was $664.82. The average interest payment was $108.46. The average adjusted gross income (AGI) figure reported on returns was $56,047.41. The AGI amount contrasts with an average AGI reported on all 1984 Michigan income tax returns of $23,384. Without further investigation, this difference would appear to indicate that the typical amnesty participant had a relatively high income. However, by examining the standard deviation for AGI (as well as amnesty tax and interest amounts), it is evident that considerable variability exists.

59

TABLE 4-1

SUMMARY CHARACTERISTICS OF MICHIGAN INDIVIDUAL INCOME TAX
AMNESTY PARTICIPANTS (BY TAXPAYER)

Characteristic	Mean	Standard Deviation	Comparison Mean Values From 1984 Taxpaying Population
Amnesty Tax Paid	$ 664.82	$ 2,253.46	-
Interest Paid	$ 108.46	502.73	-
Number of Tax Years	1.53	1.16	-
Tax Per Year	$ 432.36	NA	$ 870
AGI Per Year	$ 56,047.41	628,397.05	$ 23,129
Median AGI	$ 20,600.00	NA	$ 18,400
Percent Not Full-time Resident	4.90%	NA	NA
Number Of Exemptions	2.46	1.51	2.44
Filing Status:			
Married Filing Jointly	49.50%	NA	50.00%
Married Filing Separately	1.95%	NA	.90%
Single	48.55%	NA	49.10%
Of Single, Percent Male	64.80%	NA	NA

Source: Goddeeris, Martin, and Young (1988).

Specifically, it would appear that the means may be heavily influenced by small numbers of very large values.

To further explore this possibility, median values were also computed for each of these variables. The median figures computed were less than half the corresponding means. The median total amnesty payment (combining both amnesty tax and interest) is $196, well below the mean total of $773.28 ($664.82 in amnesty tax and $108.46 in interest). The median AGI per year in the amnesty sample is $20,600, or less than half the mean. This is still about $2,000 higher than the median AGI reported on all 1984 Michigan income tax returns ($18,400), and indicates that amnesty participants did have a marginally higher level of income than the 1984 taxpaying population.

The individual amnesty participant in the IITDB filed for about 1.5 years. This is consistent with the information reported in Table 3-3, indicating that about 71 percent of amnesty participants only filed for one year. As would be expected, most participants were full-time Michigan residents in the tax years for which they filed (only 4.9 percent were part-year residents or non-residents).

Of those taxpayers filing as single individuals, about 64.8 percent were male. This percentage is higher than the percentage of males in the labor force in 1984 (about 56 percent according to the U.S. Bureau of Labor Statistics).

Other data presented in the table (percentage of filing status for married couples filing a joint return and single individuals; exemptions claimed) are very similar to the values from the 1984 taxpaying population in Michigan.

4.2   Creation of the Research Data Base

4.2.1   General Discussion

A total of 2,985 data lines (one for each tax return) exist in the individual portion of the Michigan Amnesty Data Base. Of these data lines, two classes of returns were segregated out of the data base in creating the research data base (RDB) used in this study.

No tax return data were available for some amnesty participants when the data were collected, coded, and keyed into the data base. Either these taxpayers filed an amnesty application and paid the tax and interest due but did not file a state tax return, or the state tax return was in use for some other Treasury procedure (audit or review) at the time of data collection. These returns were identified as profile only returns, in that only certain profile information was available (name and address, social security number, tax years covered by amnesty application, and the amount of tax and interest paid during amnesty); other economic characteristics were not available.

In addition, certain amnesty returns in the sample showed a zero amnesty tax payment, or refund due the taxpayer as a result of filing. Other lines of data were unusable due to a lack of other data. These lines were also removed during creation of the research data base.

In total, these data lines comprised 515 returns and $283,058 in amnesty tax. It should be noted that the average amnesty payment of these returns is $549.63 -- more than 25 percent higher than the average amnesty tax paid for the entire sample ($432.36). These returns, not analyzed in this study, may contain important information if analyzed. As a result, a later study may request that the Department of Treasury search for returns related to these data lines. If the returns can be

located, and data collected, this information could be incorporated into the present RDB, and the present study expanded.

When these two groups of returns are removed, 2,470 lines of data are left, forming the primary research data base used in this study.

4.2.2   Verification of Data and Error Correction Procedures

Once the 2,470 returns had been secured in a separate data base, a series of range and accuracy tests were performed on the data. These tests were primarily performed to assess the accuracy of the data. As mentioned in Chapter 3, a great deal of time was spent on the data collection and data entry processes, including significant training, supervision, and accuracy checks. However, no specific judgement on error rates in the data were made.

It is important to note that the range and accuracy test performed did not encompass the entire RDB, but only focused on variables that were of specific interest in this study. The various tests performed on the data include the following:

1.   Amnesty tax paid greater than tax computed on return;
2.   Tax divided by taxable income greater than 6.35 percent;
3.   Occupation (taxpayer or spouse) coding greater than maximum possible (33);
4.   Tax year prior to 1970;
5.   Comparison of gender and filing status;
6.   Zip code in Michigan, but listed as non-resident;
7.   Zip code outside Michigan, but listed as resident;
8.   Taxable income greater than AGI;
9.   Data line missing AGI; and
10.   Data line missing total tax.

Upon completion of these tests, a list of questionable items was compiled, by return. As previously mentioned, after the completion of data collection and data entry, the Department of Treasury, the original returns were filed and the amnesty applications were destroyed. The

questionable data noted during the range and accuracy tests were traced back to the original documents in Department of Treasury files.

During this process, about 44,598 data points were subjected to examination, excluding missing values. The review process disclosed 133 errors in the data. The errors were corrected in the research data base used in this study. However, the Michigan Amnesty Data Base has not been changed. Instead, researchers requesting the data will be provided with a list of the errors in the data.

4.3 Summary Characteristics of the Research Data Base

4.3.1 An Overview of the Research Data Base

Table 4-2 provides some descriptive information about the entire research data base. The information is similar to that previously presented on a participant basis (note, again that the research data base is on a return basis -- one taxpayer could have several lines of entry in the research data base). The average amnesty tax payment is $408.51, while the average adjusted gross income (AGI) figure reported on returns was $57,629.49. As in the by participant information, the amnesty tax and AGI amounts have a standard deviation several times larger than the mean. The median values computed for each of these variables resulted in lower figures, less than half the corresponding means. The median tax amnesty payment is $138.06, well below the mean. The median AGI per year is $20,158.25, or less than half the mean.

Most returns in the research data base were from full-time Michigan residents (96.42 percent). Only 1.48 percent were part-time residents and only 2.10 percent were non-residents.

TABLE 4-2

SUMMARY CHARACTERISTICS OF THE RESEARCH DATA BASE

Taxpayer Group	Number	Percent		Average Amnesty Tax	Average AGI
Research Data Base	2,470	100.00		$ 408.51	$ 57,629.49
Amended Returns (Group 1)	571	23.12		463.86	153,433.61
Non-Amended Returns	1,899	76.88	100.00	391.87	28,822.66
Prior Contact (Group 2)	1,272	51.50	66.98	317.35	35,042.55
No Prior Contact (Group 3)	627	25.38	33.02	543.05	16,204.33

Item	Number	Mean	Standard Deviation	Median	Minimum	Maximum
Amnesty Tax	2470	408.51	1,571.76	138.06	.34	64,498
AGI	2470	57,629.49	697,362.20	20,158.25	25.00	24,115,974
Exemptions	2470	2.42	1.49	2.00	0.00	11

Characteristic		Number	%
Filing Status:	Single	2433	50.10
	Married Filing Joint	2433	47.47
	Married Filing Separate	2433	2.43
Residency:	Resident	2428	96.42
	Part-Year Resident	2428	1.48
	Non-Resident	2428	2.10
Gender:	Male	1228	66.69
	Female	1228	33.31
Other Characteristics:	Non-filers in 1986	2470	26.96
	Opportunity to Evade	2010	2.79
	Likely Self-Employed	2470	10.00
	Urban (living in SMSA)	2470	82.79
	Contact Indicated	2457	74.48

The mean number of exemptions is 2.42, similar to both the sample data and the 1984 Michigan taxpaying population. The percentages of returns filed by single individuals is 50.10 percent, while married couples filing joint returns account for 47.47 percent of the research data base, and married couples filing separately account for 2.43 percent of returns in the research data base. Among the amnesty returns not filed jointly, 66.69 percent were filed by males. Several other interesting characteristics of these returns should be mentioned.

Non-Filers in 1986. During the data collection process in August 1987, it was suggested to the Department of Treasury that all taxpayers filing a tax return under amnesty (generally for 1984 and earlier tax years) be monitored to ensure compliance in 1986 and subsequent tax years. As a result, the Department cross-matched all individual amnesty participants against the 1986 tax return master file. This match was performed on three occasions, once prior to August 15, 1987 (the extended due date of 1986 returns), once in September 1987, and a third time in late October 1987 (subsequent to the second extended due date for 1986 individual returns -- October 15, 1987). In addition, amnesty filers identification numbers also were matched against a file which contained all extension requests. Letters were sent to all amnesty participants who hadn't been matched during this process, requesting information as to why a state return hadn't been filed.

One could think of these taxpayers as chronic non-filers (which may be different than chronic evaders). However, this action (of not filing a return) does provide some measure of an attitude regarding compliance. This information was included in the Michigan Amnesty Data Base, and is

further analyzed as a part of this study. <u>Of taxpayers in the research
data base, 26.96 percent failed to file a return in 1986</u>.

<u>Opportunity to Evade</u>. Yankelovich, Skelly, and White [1984] built a
variable called "opportunity" from a composite of occupation (self-
employed, business, professional, or sales), income level of $30,000 or
more, and access to cash income sources. A similar variable was created
from data in the research data base. Of taxpayers in the research data
base, 2.79 percent are classified as having the opportunity to evade
taxes (although they accounted for 10.08 percent of the amnesty tax paid
within the research data base). This low percentage would seem to
indicate that the amnesty program did not attract many taxpayers with
these characteristics. However, there has been no measure of this
variable within the individual taxpaying population in Michigan. As a
result, no benchmark exists for comparison purposes. Future research
should attempt to identify the percentage of taxpayers with these
characteristics not only in Michigan, but also in the United States.

<u>Likely Self-Employed</u>. In addition to those taxpayers who identified
themselves as self-employed in the occupation information, the data was
examined to alter this classification. In addition to those taxpayers
disclosing self-employment, additional taxpayers were added to this class
if:

1. No taxes were withheld,

2. No W-2 was present with the amnesty return information, and

3. The occupation disclosed was <u>not</u> retired, student, deceased, or
   other.

Given this definition, 10 percent of the returns in the research data
base are related to taxpayers who are likely self-employed.

Standard Metropolitan Statistical Areas (SMSA)/Urban. As part of the process of preparing the research data base for analysis, taxpayers were assigned to Standard Metropolitan Statistical Areas (SMSA) in Michigan using the zip code data in the Michigan Amnesty Data Base. This allows for a reasonable use of the zip code data, creates a smaller number of regions, and also provides information on urban/rural differences in the data base. The following SMSAs exist in Michigan:

SMSA Number	City	Counties
0440	Ann Arbor	Washtenaw
0780	Battle Creek	Calhoun
0870	Benton Harbor	Berrien
2160	Detroit	Wayne, Oakland, Macomb, Monroe, Livingston, Lapeer, St. Clair
2640	Flint	Genesee
3000	Grand Rapids	Kent, Ottawa
3520	Jackson	Jackson
3720	Kalamazoo	Kalamazoo
4040	Lansing	Ingham, Eaton, Clinton
5320	Muskegon	Muskegon
6960	Saginaw/Bay City/Midland	Bay, Midland, Saginaw

Using a zip code directory for Michigan (which provides not only a listing of all zip codes, but also the county in which each is located), zip codes for each SMSA were assembled. A transformation of the zip code data then was made, with new independent variables being created (one for each SMSA). In addition, an urban variable (if in a SMSA, the taxpayer is considered urban) and rural variable (if the taxpayer is not in an SMSA) was also created. Of taxpayers in the research data base, 82.79 percent were living in a SMSA.

Groupings Within the Research Data Base. For purposes of providing some descriptive information about the RDB, all taxpayers in the research data base (2,470 returns or 82.75 percent of the IITDB) can be assigned to one of three groups, detailed in Figure 4-1 [amended (Group 1), non-

FIGURE 4-1

A SUMMARY OF THE MICHIGAN AMNESTY DATA BASE

TOTAL INDIVIDUAL INCOME TAX DATA BASE
- Returns   2,985
- Amnesty Tax Paid $ 1,292,087
- Average Amnesty Tax Paid $ 432.36

RESEARCH DATA BASE
- Returns   2,470
- Amnesty Tax Paid $ 1,009,029
- Average Amnesty Tax Paid $ 408.51

AMENDED RETURNS (GROUP 1)
- Returns   571
- Amnesty Tax Paid $ 264,866
- Average Amnesty Tax Paid $ 463.86

NON-AMENDED RETURNS (GROUPS 2 AND 3)
- Returns   1,899
- Amnesty Tax Paid $ 744,163
- Average Amnesty Tax Paid $ 391.87

RETURNS WITH PRIOR TREASURY CONTACT (GROUP 2)[1]
- Returns   1,272
- Amnesty Tax Paid $ 403,672
- Average Amnesty Tax Paid $ 317.35

RETURNS WITHOUT PRIOR TREASURY CONTACT (GROUP 3)
- Returns   627
- Amnesty Tax Paid $ 340,491
- Average Amnesty Tax Paid $ 543.05

TAX RETURN DATA NOT AVAILABLE   [2]
- Returns   515
- Amnesty Tax Paid $ 283,058
- Average Amnesty Tax Paid $ 549.63

[1] **Returns With Prior Treasury Contact.** Taxpayers were categorized as having prior Treasury contact if state taxes were withheld, or estimated taxes were paid, or a W-2 was submitted with the tax return, or if the taxpayer had been identified by the Department of Treasury as having filed a federal return but not a state return.

[2] **Tax Return Data Not Available.** These taxpayers filed an amnesty return and paid any tax and interest owed, but did not file a state tax return. The Michigan Department of Treasury requested that appropriate returns be filed, but any returns filed as a result of this request were received after data collection occurred.

amended with prior contact (Group 2), non-amended with no prior contact (Group 3)]. These groupings are discussed below. A fourth group identified in Figure 4-1 is made up of the 515 returns (17.25 percent of the IITDB) for which no tax return information was available, or for which no amnesty payment was due (these returns are not included in the RDB).

Initially, amnesty taxpayers can be divided into one of two groups-- those taxpayers filing amended returns (Group 1) and those filing new (non-amended) returns (Groups 2 and 3). During data collection, an amended return was defined as one disclosing original return information, revised information and reasons for the revision, and recomputed tax liability. If an amended return was filed but contained no original return information, the return was classified as a non-amended return (i.e., it was possible for a new filer to use an amended return form to file under amnesty, even though it was not truly an amended return). Based on the definition of amended returns used in data collection, taxpayers classified in this group were clearly known to the Department of Treasury prior to the amnesty program.

Participants filing non-amended tax returns as part of amnesty can be divided into two groups (Groups 2 and 3). From the information collected, it appears that the Department of Treasury had access to data that should have identified certain taxpayers as nonfilers. The categorization of amnesty taxpayers into Group 2 or 3 was based on this knowledge of the taxpayer prior to amnesty.

Taxpayers were categorized into Group 2 (new returns with prior contact) if one or more of the following were true:

1. The return indicated that taxes had been withheld from the amnesty taxpayer;

2. The return indicated that estimated tax had been paid by the amnesty taxpayer;

3. A W-2 form was attached to the return; or

4. The amnesty materials contained a copy of a letter from the Michigan Department of Treasury indicating that the IRS had notified the Department of Treasury that a federal filing had been made from a Michigan address. The letter also indicated that a cross-match by the Department of Treasury disclosed that no Michigan return had been filed.

The other group of taxpayers filing non-amended returns (Group 3) are those who meet none of the above listed conditions. These taxpayers were probably unknown to the Department of Treasury prior to amnesty.

Although the Department of Treasury had tax information available which could have identified individuals in Group 2 as nonfilers, it is possible that some taxpayers in Group 2 had never filed a tax return. In addition, it is possible that the Department of Treasury had knowledge about some of the taxpayers in Group 3 (e.g., although the information collected during amnesty would indicate that the Department of Treasury did not have knowledge concerning them, these taxpayers may have filed a return in the past).

The results of categorizing participants among the various groups indicates that 571 participants filed amended returns (Group 1), accounting for only 23.12 percent of the research data base. Filers of new (non-amended) returns (Groups 2 and 3) represent 76.88 percent of the data base (1,899 returns).

Among the participants for whom non-amended returns are present, Group 2 comprises 1,272 returns (51.50 percent of the research data base; 66.98 percent of non-amended returns). As noted, some of these individuals filed federal tax returns but not Michigan tax returns, but

even more common are individuals who paid a portion of their tax liability (through withholding or estimated payments), but did not file a state return. In many instances, these individuals owed only a small amount of additional tax. The reason for their failure to file is not known -- some probably were just lax in their efforts; others probably thought they had paid in a sufficient amount via withholding or estimated payments, and therefore did not file a return.

Taxpayers who filed new income tax returns in amnesty and had not been in the tax system (Group 3) account for 25.38 percent of the research data base (627 returns), and 33.02 percent of the non-amended returns in the research data base.

Table 4-3 provides some descriptive information about each of these groupings within the research data base (amended, all non-amended, non-amended with contact, non-amended without contact). For amended returns (Group 1), the mean values for amnesty tax ($463.80), AGI ($153,433.61), and exemptions claimed (2.76) were higher than the means for non-amended returns (Groups 2 and 3 combined: $391.87, $28,822.66, and 2.32, respectively). However, the mean amnesty tax for those taxpayers without prior Treasury Department contact (Group 3: $543.05) is the largest among the groups, even though the mean AGI for this group is the lowest ($16,204.33).

The majority of amended returns were jointly filed by married taxpayers (71.70 percent); only 40.08 percent of the combined non-amended returns were so filed. Among Group 3 returns (taxpayers without contact), 67.10 percent are single taxpayers. Of the returns not filed jointly, the most significant gender difference was among non-amended returns without contact where males filed 71.39 percent of these returns.

TABLE 4-3

SUMMARY CHARACTERISTICS OF RETURNS

AMENDED RETURNS WITHIN RESEARCH DATA BASE (GROUP 1)

Item	Number	Mean	Standard Deviation	Median	Minimum	Maximum
Amnesty Tax	571	463.86	2,824.30	119.08	.71	64,498
AGI	571	153,433.61	1,380,818.10	31,715.48	3,047.48	24,115,974
Exemptions	564	2.76	1.27	2.00	1.00	8

Characteristic		Number	%
Filing Status:	Single	569	27.42
	Married Filing Joint	569	71.70
	Married Filing Separate	569	0.88
Gender:	Male	156	51.92
	Female	156	48.08
Other Characteristics:	Non-filers in 1986	571	9.98
	Opportunity to Evade	115	6.96
	Likely Self-Employed	571	4.20
	Urban (living in SMSA)	571	78.98

TABLE 4-3 (CONTINUED)

NON-AMENDED RETURNS WITHIN RESEARCH DATA BASE (GROUPS 2 AND 3)

Item	Number	Mean	Standard Deviation	Median	Minimum	Maximum
Amnesty Tax	1899	391.87	903.83	143.07	.34	16,188.00
AGI	1899	28,822.66	237,542.30	17,353.00	25.00	10,309,092.00
Exemptions	1899	2.32	1.54	2.00	0.0	11.0

Characteristic		Number	%
Filing Status:	Single	1864	57.02
	Married Filing Joint	1864	40.08
	Married Filing Separate	1864	2.90
Gender:	Male	1072	68.84
	Female	1072	31.16
Other Characteristics:	Non-filers in 1986	1899	32.07
	Opportunity to Evade	1895	2.43
	Likely Self-Employed	1899	14.27
	Urban (living in SMSA)	1899	83.94

TABLE 4-3 (CONTINUED)

RETURNS WITH CONTACT IN RESEARCH DATA BASE (GROUP 2)

Item	Number	Mean	Standard Deviation	Median	Minimum	Maximum
Amnesty Tax	1272	317.35	843.35	120.34	.34	15,947.08
AGI	1272	35,042.55	289,710.10	21,321.00	150.00	10,309,092.00
Exemptions	1272	2.47	1.59	2.00	0.0	9.0

Characteristic		Number	%
Filing Status:	Single	1253	52.12
	Married Filing Joint	1253	45.33
	Married Filing Separate	1253	2.55
Gender:	Male	656	67.23
	Female	656	32.77
Other Characteristics:	Non-filers in 1986	1272	31.37
	Opportunity to Evade	1272	2.44
	Likely Self-Employed	1272	5.50
	Urban (living in SMSA)	1272	86.08

TABLE 4-3 (CONTINUED)

RETURNS WITHOUT CONTACT IN RESEARCH DATA BASE (GROUP 3)

Item	Number	Mean	Standard Deviation	Median	Minimum	Maximum
Amnesty Tax	627	543.05	999.28	224.00	1.46	16,188.00
AGI	627	16,204.33	20,793.38	9,810.60	25.00	257,923.00
Exemptions	627	2.03	1.38	1.00	1.00	11.00

Characteristic		Number	%
Filing Status:	Single	611	67.10
	Married Filing Joint	611	29.30
	Married Filing Separate	611	3.60
Gender:	Male	416	71.39
	Female	416	28.61
Other Characteristics:	Non-filers in 1986	627	33.49
	Opportunity to Evade	623	2.57
	Likely Self-Employed	627	24.40
	Urban (living in SMSA)	627	79.59

This can be contrasted with 68.84 percent for all non-amended returns, 67.23 percent for non-amended returns with contact, and only 51.92 percent for amended returns.

Only 9.98 percent of the amended return filers failed to file a return in 1986, while 33.49 percent of the non-amended return filers without contact failed to file. Amended filers had the highest percentage of taxpayers with the opportunity to evade (6.96 percent), while amnesty participants filing non-amended returns without contact had the highest percentage of likely self-employed taxpayers (24.40 percent), and apparently also had a greater opportunity to evade (2.57 percent) than the non-amended returns with contact (2.44 percent).

In summary, the non-amended no contact taxpayers appear to be a group of particular research interest. The average tax payment for this group is larger than for the entire research data base (as well as the non-amended filers with contact) while the mean AGI is smaller, indicating that the majority of their tax liability was paid during amnesty.

Occupations. As part of the data collection efforts, occupational information was sought for inclusion in the Michigan Amnesty Data Base. The only available source of this information, however, was a line on the Michigan tax return labeled "your occupation," requesting a written response from the taxpayer. These written responses were classified into 33 categories, adapted from the two-digit level occupational categories defined by the U.S. Department of Labor (Dictionary of Occupational Titles, 4th Edition, 1977).

A few caveats regarding the occupational data are warranted. First, recall that for 515 data lines (about 17.3 percent of the IITDB) no tax

returns were available when the data collection occurred. Second, among the returns available during the data collection process, more than 15 percent had no entry on the occupation line.

Third, classification among occupations was sometimes a problem. For example, although a taxpayer disclosed his occupation as "self-employed," there was an effort made to classify this taxpayer into another occupational group based on other information in the return. However, if no other information was available, the taxpayer was put in the self-employed category. On the other hand, if a taxpayer disclosed an occupation of "doctor," the taxpayer was categorized using that information, even though it is possible that the taxpayer was also self-employed. Another frequent response was "management" or "executive." Taxpayers disclosing one of these occupations were placed in a single category called "management/executive" if this was the only information available.

Table 4-4 provides the percentage breakdown by occupation of the full IITDB, in order of frequency, along with brief descriptions of occupations included in various categories. The table does not provide any information beyond the occupational categorizations. As a result, it is not proper to conclude that occupations with high percentages are indicative of tax evasion. In fact, these disclosures not only reflect the propensities of their members to participate in amnesty, but also the taxpaying population in Michigan.

TABLE 4-4

PERCENTAGE DISTRIBUTION OF OCCUPATIONS REPORTED
BY MICHIGAN INCOME TAX AMNESTY PARTICIPANTS

Category Code	Occupation	Percent of Sample
30	Retired	13.30%
9	Management/Executive	9.03
13	Sales	8.35
28	Student	6.91
27	Self-Employed	6.37
15	Building Trades (includes carpenters, plumbers, electricians, etc.)	5.75
22	Machine Trades (includes metal workers, tool and die, mechanics)	5.61
23	Fabrication of Products (includes assembly workers)	5.54
24	Transportation (drivers, pilots, flight attendants)	3.83
11	Clerical	3.76
2	Architecture, Engineering, Surveying	3.42
4	Education (teachers at all levels, librarians)	3.35
3	Medicine and Health (doctors, dentists, pharmacists, nurses, etc.)	2.60
32	Unskilled Laborer	2.40
16	Protective Services (police, fire fighters, security)	1.51
6	Law (lawyers, judges)	1.44
7	Creative Arts (writing, journalism, art, acting)	1.44
14	Food, Beverage, Lodging	1.37
18	Personal Services (includes barbers, tailors, dry cleaners, etc.)	1.30
17	Building Services (janitors, maintenance)	1.30
12	Computer Related	1.23
19	Agriculture, Fishery, Forestry	1.23
8	Accounting/CPAs	1.03
5	Clergy	0.89
1	Sciences (mathematics, physical/life/social sciences)	0.82
26	Amusement, Recreation, Radio/Television, Motion Picture	0.68
25	Packaging and Materials Handling	0.68
10	Professional Support (legal assistants, dental assistant, etc.)	0.55
21	Printing and Paperworking	0.48
20	Natural Resources Processing and Extraction	0.34
29	Housewife	0.34
31/33	Other (including Deceased)	3.15

Source: Goddeeris, Martin, and Young (1988)

For purposes of this study, taxpayers in these 33 occupational groups have been consolidated into 7 major categories -- primarily for ease of analysis. Occupational data was only available for 2,085 of the 2,470 data lines in the research data base. The following summarizes the consolidation process:

Michigan Amnesty Data Base Occupations (by Category)	Research Data Base Category Title	Number	%
1 to 9	Professional	507	24.32
10 to 12	Professional Support	116	5.56
13	Sales	201	9.64
15, 18, 19, 21, 22, 24	Skilled Labor	410	19.66
14, 16, 17, 20, 23, 25, 26, 32	Unskilled Labor	264	12.66
27	Self-Employed	135	6.47
28 to 31, 33	Other (students, retired)	452	21.68
	Total	2,085	100.00%

The next set of tables (Tables 4-5 through 4-11), provide the same summary information as Table 4-2, for each of the above occupational categories. A number of differences across category are evident. Average amnesty payments are highest among the self-employed, sales, and professional categories. They are lowest among the professional support, unskilled labor, and other (retired and students) categories. Average AGI values follow a similar pattern, with the occupational categories with high amnesty payments generally reporting high incomes. However, the self-employed and sales categories, both of which have amnesty payments well above the overall average do not have AGI levels as high as the professional category.

Means of other variables differ across categories in expected patterns. The category with the highest opportunity to evade is self-employed (24.00 percent) followed by sales (6.75 percent) and professional (4.58 percent). The lowest levels of contact occurred in

the self-employed (41.79 percent), retired/students (59.59 percent) and sales (66.17 percent). The professional support category is heavily represented by females while several others are predominantly male. The highest level of amended filings occurred in the professional category (32.54 percent). Non-filers in 1986 were highest in the self-employed (38.52 percent) and sales (29.35 percent) categories, while the category most likely to include self-employed taxpayers (other than the self-employed category) was sales (11.44 percent). Joint returns were filed more often by taxpayers in the professional (62.60 percent) and sales (59.80 percent) categories, while single returns dominated in the professional support (68.81 percent) and retired/students (66.00 percent) categories.

TABLE 4-5

SUMMARY CHARACTERISTICS OF RETURNS BY OCCUPATION

CATEGORY: PROFESSIONAL

Item	Number	Mean	Standard Deviation	Median	Minimum	Maximum
Amnesty Tax	507	694.95	3,055.45	176.00	.71	64,498
AGI	507	188,741.73	1,538,716.69	37,284.00	25.00	24,115,974
Exemptions	507	2.96	1.65	3.00	1.00	9.00

Characteristic		Number	%
Filing Status:	Single	500	34.80
	Married Filing Joint	500	62.60
	Married Filing Separate	500	2.60
Gender:	Male	188	58.51
	Female	188	41.49
Other Characteristics:	Non-filers in 1986	507	28.80
	Opportunity to Evade	306	4.58
	Likely Self-Employed	507	3.95
	Urban (living in SMSA)	507	87.77
	Amended Return	507	32.54
	Contact Indicated	507	87.97

TABLE 4-6

SUMMARY CHARACTERISTICS OF RETURNS BY OCCUPATION

CATEGORY: PROFESSIONAL SUPPORT

Item	Number	Mean	Standard Deviation	Median	Minimum	Maximum
Amnesty Tax	116	155.73	191.13	91.92	1.94	1,358.72
AGI	116	22,147.27	17,705.43	18,495.15	1,872.00	117,467.60
Exemptions	116	2.09	1.25	2.00	1.00	6.00

Characteristic		Number	%
Filing Status:	Single	109	68.81
	Married Filing Joint	109	27.52
	Married Filing Separate	109	3.67
Gender:	Male	75	32.00
	Female	75	68.00
Other Characteristics:	Non-filers in 1986	116	29.31
	Opportunity to Evade	92	0.00
	Likely Self-Employed	116	2.59
	Urban (living in SMSA)	116	80.17
	Amended Return	116	20.69
	Contact Indicated	116	89.66

TABLE 4-7

SUMMARY CHARACTERISTICS OF RETURNS BY OCCUPATION

CATEGORY: SALES

Item	Number	Mean	Standard Deviation	Median	Minimum	Maximum
Amnesty Tax	201	837.97	1,514.08	378.00	3.00	13,908.00
AGI	201	36,733.67	36,775.13	29,632.00	1,550.00	287,555.00
Exemptions	201	2.88	1.65	3.00	1.00	11.00

Characteristic		Number	%
Filing Status:	Single	199	38.19
	Married Filing Joint	199	59.80
	Married Filing Separate	199	2.01
Gender:	Male	80	85.00
	Female	80	15.00
Other Characteristics:	Non-filers in 1986	201	29.35
	Opportunity to Evade	163	6.75
	Likely Self-Employed	201	11.44
	Urban (living in SMSA)	201	79.10
	Amended Return	201	18.91
	Contact Indicated	201	66.17

TABLE 4-8

SUMMARY CHARACTERISTICS OF RETURNS BY OCCUPATION

CATEGORY: SKILLED LABOR

Item	Number	Mean	Standard Deviation	Median	Minimum	Maximum
Amnesty Tax	410	319.41	574.83	137.00	.76	4,709.00
AGI	410	25,180.62	31,021.64	21,230.50	150.00	558,249.00
Exemptions	410	2.55	1.61	2.00	1.00	9.00

Characteristic		Number	%
Filing Status:	Single	405	44.69
	Married Filing Joint	405	53.09
	Married Filing Separate	405	2.22
Gender:	Male	185	81.62
	Female	185	18.38
Other Characteristics:	Non-filers in 1986	410	29.76
	Opportunity to Evade	339	0.00
	Likely Self-Employed	410	9.76
	Urban (living in SMSA)	410	82.93
	Amended Return	410	17.32
	Contact Indicated	409	78.48

TABLE 4-9

SUMMARY CHARACTERISTICS OF RETURNS BY OCCUPATION

CATEGORY: UNSKILLED LABOR

Item	Number	Mean	Standard Deviation	Median	Minimum	Maximum
Amnesty Tax	264	212.91	334.15	96.04	.34	2,112.00
AGI	264	21,725.59	16,008.90	19,811.00	1,575.98	177,508.00
Exemptions	264	2.41	1.49	2.00	1.00	8.00

Characteristic		Number	%
Filing Status:	Single	261	52.11
	Married Filing Joint	261	44.83
	Married Filing Separate	261	3.06
Gender:	Male	132	80.30
	Female	132	19.70
Other Characteristics:	Non-filers in 1986	264	24.62
	Opportunity to Evade	222	0.00
	Likely Self-Employed	264	9.47
	Urban (living in SMSA)	264	81.06
	Amended Return	264	15.91
	Contact Indicated	263	84.41

TABLE 4-10

SUMMARY CHARACTERISTICS OF RETURNS BY OCCUPATION

CATEGORY: SELF-EMPLOYED

Item	Number	Mean	Standard Deviation	Median	Minimum	Maximum
Amnesty Tax	135	826.74	1,976.21	394.00	2.00	16,188
AGI	135	43,012.25	212,126.00	14,433.82	1,526.00	2,452,679
Exemptions	135	2.17	1.35	2.00	1.00	7

Characteristic		Number	%
Filing Status:	Single	135	48.89
	Married Filing Joint	135	47.41
	Married Filing Separate	135	3.70
Gender:	Male	69	86.96
	Female	69	13.04
Other Characteristics:	Non-filers in 1986	135	38.52
	Opportunity to Evade	125	24.00
	Likely Self-Employed	135	100.00
	Urban (living in SMSA)	135	82.96
	Amended Return	135	14.07
	Contact Indicated	134	41.79

TABLE 4-11

SUMMARY CHARACTERISTICS OF RETURNS BY OCCUPATION

CATEGORY: OTHER (RETIRED, STUDENT)

Item	Number	Mean	Standard Deviation	Median	Minimum	Maximum
Amnesty Tax	452	174.67	216.79	98.95	1.46	1,767.58
AGI	452	13,925.82	13,994.92	9,897.50	836.00	134,406.00
Exemptions	452	1.95	1.03	2.00	0.00	6.00

Characteristic		Number	%
Filing Status:	Single	447	66.00
	Married Filing Joint	447	33.33
	Married Filing Separate	447	0.67
Gender:	Male	275	50.55
	Female	275	49.45
Other Characteristics:	Non-filers in 1986	452	22.35
	Opportunity to Evade	452	0.00
	Likely Self-Employed	452	0.22
	Urban (living in SMSA)	452	80.09
	Amended Return	452	24.34
	Contact Indicated	451	59.59

Other Characteristics. Tables 4-12 to 4-15 provide summary information on gender, filing status, non-filers in 1986, and taxpayers with opportunity to evade taxes. In addition to being larger in number, males had a larger mean amnesty tax ($302.05) than females ($193.55), although males had a lower mean AGI (Table 4-12). Both the mean amnesty tax payments were below that of the research data base. Males were more likely to be self-employed (11.97 to 6.11 percent), while females were more likely not to have filed a return in 1986 (32.76 to 25.89 percent).

Although more taxpayers in the research data base filed as singles, the mean amnesty tax paid by these taxpayers ($261.77) was less than half the mean amnesty tax paid by married taxpayers filing joint returns ($571.15) (Table 4-13). However, the proportion of tax to level of income (AGI) is almost two and a half times as great with single taxpayers than with married couples filing a joint return. Married taxpayers filing joint had a larger percentage of taxpayers with the opportunity to evade taxes (5.02 to 0.82 percent), and amended returns (35.41 to 12.96 percent).

Taxpayers who failed to file a return in 1986 (Table 4-14) had larger mean amnesty tax payments ($594.98) and AGI ($110,121.01) than the entire research data base. In addition, they were more likely to be self-employed (15.02 percent) and had a greater opportunity to evade (3.96 percent) than the entire research data base. Although more males failed to file in 1986 than females, (61.27 to 38.73 percent), this result is primarily due to the fact that twice as many males filed for amnesty as females. As noted previously, females had a higher level of non-filing in 1986 than males.

TABLE 4-12

SUMMARY CHARACTERISTICS OF RETURNS BY GENDER

MALE

Item	Number	Mean	Standard Deviation	Median	Minimum	Maximum
Amnesty Tax	819	302.05	537.13	122.25	1.00	5,564.00
AGI	819	18,241.15	26,462.06	12,752.00	150.00	334,940.00
Exemptions	819	1.33	.81	1.00	0.00	2.00

Characteristic	Number	%
Non-filers in 1986	819	25.89
Opportunity to Evade	794	0.88
Likely Self-Employed	819	11.97
Urban (living in SMSA)	819	86.32
Amended Return	819	10.01
Contact Indicated	817	63.53

FEMALE

Item	Number	Mean	Standard Deviation	Median	Minimum	Maximum
Amnesty Tax	409	193.55	265.40	101.00	.76	2,202
AGI	409	22,501.20	123,078.34	11,055.00	1,575.98	2,452,679
Exemptions	409	1.57	.75	1.00	1.00	5.00

Characteristic	Number	%
Non-filers in 1986	409	32.76
Opportunity to Evade	310	0.65
Likely Self-Employed	409	6.11
Urban (living in SMSA)	409	86.80
Amended Return	409	19.07
Contact Indicated	406	70.69

TABLE 4-13

SUMMARY CHARACTERISTICS OF RETURNS BY FILING STATUS

SINGLE

Item	Number	Mean	Standard Deviation	Median	Minimum	Maximum
Amnesty Tax	1219	261.77	442.61	115.79	1.00	4,674.81
AGI	1219	19,485.38	74,512.27	12,169.00	150.00	2,452,679.00
Exemptions	1219	1.39	.78	1.00	1.00	2.00

Characteristic		Number	%
Gender:	Male	1161	66.24
	Female	1161	33.76
Other Characteristics:	Non-filers in 1986	1219	28.30
	Opportunity to Evade	1097	0.82
	Likely Self-Employed	1219	9.93
	Urban (living in SMSA)	1219	86.22
	Amended Return	1219	12.96
	Contact Indicated	1210	66.12

MARRIED, FILING JOINT

Item	Number	Mean	Standard Deviation	Median	Minimum	Maximum
Amnesty Tax	1155	571.15	2,238.49	177.16	.34	64,498
AGI	1155	101,026.35	1,015,404.76	31,889.00	25.00	24,115,974
Exemptions	1155	3.54	1.27	4.00	2.00	9

Characteristic	Number	%
Non-filers in 1986	1155	24.94
Opportunity to Evade	897	5.02
Likely Self-Employed	1155	9.96
Urban (living in SMSA)	1155	78.61
Amended Return	1155	35.41
Contact Indicated	1151	84.45

TABLE 4-14

SUMMARY CHARACTERISTICS OF RETURNS

NON-FILERS IN 1986

Item	Number	Mean	Standard Deviation	Median	Minimum	Maximum
Amnesty Tax	666	594.98	2,788.68	182.94	.76	64,498
AGI	666	110,121.01	1,304,892.21	20,092.50	25.00	24,115,974
Exemptions	666	2.41	1.52	2.00	1.00	11

Characteristic		Number	%
Filing Status:	Single	652	52.91
	Married Filing Joint	652	44.17
	Married Filing Separate	652	2.92
Gender:	Male	346	61.27
	Female	346	38.73
Other Characteristics:	Opportunity to Evade	581	3.96
	Likely Self-Employed	666	15.02
	Urban (living in SMSA)	666	83.18
	Amended Return	666	8.56
	Contact Indicated	662	68.28

Taxpayers with opportunity to evade taxes also provide some interesting information (Table 4-15). They carry the highest mean amnesty tax payment of any of the groups investigated ($1,816.86), have a large mean AGI ($108,801.25), have the highest likely self-employed proportion (58.93 percent), and were more likely to be non-filers in 1986 (42.86 percent). In addition, 79.63 percent of the taxpayers were married filing a joint return.

4.3.2   Distributions of Tax Payments and Reported Incomes

The differentiation among the various groups of amnesty participants is reinforced by the data related to the distribution of amnesty tax payments as shown in Table 4-16. The numbers across each row (excluding the means in the two right hand columns) add up to 100 percent, and indicate percentages of taxpayers with amnesty tax payments falling into the specified dollar ranges. Although the mean amnesty tax payment was $408.51 for the research data base, 41.21 percent paid $100.00 or less, and 81.21 percent paid $500.00 or less.

There are some interesting patterns in the distributional information. In the occupational categories, payments by the professional support, skilled labor, unskilled labor, and retired/student categories are more concentrated in the smaller payment ranges than the entire research data base. Conversely, the professional, sales, and self-employment categories have relatively high percentages in the more than $500 ranges.

Married couples filing joint returns have higher percentages than the entire research data base in the more than $500 ranges, as do taxpayers who failed to file a return in 1986, those with opportunity to evade and taxpayers who likely are self-employed. Taxpayers with the

TABLE 4-15

SUMMARY CHARACTERISTICS OF RETURNS

OPPORTUNITY

Item	Number	Mean	Standard Deviation	Median	Minimum	Maximum
Amnesty Tax	56	1,816.86	2,926.31	1,178.81	68.00	16,188
AGI	56	108,801.25	323,918.50	47,368.00	30,092.00	2,452,679
Exemptions	56	3.30	1.41	3.00	1.00	7

Characteristic		Number	%
Filing Status:	Single	54	16.67
	Married Filing Joint	54	79.63
	Married Filing Separate	54	3.70
Gender:	Male	9	66.67
	Female	9	33.33
Other Characteristics:	Non-filers in 1986	56	42.86
	Likely Self-Employed	56	58.93
	Urban (living in SMSA)	56	82.14
	Amended Return	56	16.07
	Contact Indicated	56	70.91

TABLE 4-16

PERCENTAGE DISTRIBUTIONS AND MEANS OF AMNESTY TAX PAID BY VARIOUS CATEGORIES

	$100 or Less	$101 to $500	$501 to $1,000	$1,001 to $5,000	More Than $5,000	Amnesty Tax Mean	AGI Mean
Total	41.21	40.00	10.20	8.02	0.57	408.51	57,629.49
Occupation:							
Professional	38.02	36.81	11.58	11.93	1.66	694.95	188,741.73
Prof. Support	52.57	40.47	5.62	1.34	0.00	155.73	22,147.27
Sales	24.78	35.98	18.05	20.35	0.84	837.97	36,733.67
Skilled Labor	41.51	42.01	10.31	6.17	0.00	319.41	25,180.62
Unskilled Labor	51.49	38.98	4.77	4.76	0.00	212.91	21,725.59
Self-Employed	19.85	43.90	20.02	14.98	1.25	826.74	43,012.25
Retired/Student	49.30	42.86	6.48	1.36	0.00	174.67	13,925.82
Filing Status:							
Single	46.02	40.36	8.70	4.92	0.00	261.77	19,485.38
Married, Joint	36.10	39.48	12.03	11.18	1.21	571.15	101,026.35
Married, Separate	38.98	44.08	5.08	11.86	0.00	332.04	17,897.44
Gender:							
Male	44.08	39.69	9.89	6.34	0.00	302.05	18,241.15
Female	49.88	42.05	5.87	2.20	0.00	193.55	22,501.20
Other:							
Non-filer in 1986	35.89	40.39	10.96	12.01	0.75	594.98	110,121.01
Opportunity	11.41	18.58	17.84	47.63	4.54	1,816.86	108,801.25
Likely Self-Employed	17.00	40.08	23.08	19.03	0.81	773.63	33,039.92
Urban (in SMSA)	41.32	40.59	9.78	7.63	0.68	419.60	64,021.84
Amended Return	45.83	38.37	9.38	5.73	0.69	463.86	153,433.61
Contact Indicated	44.63	39.76	9.17	5.79	0.65	317.35	35,042.55

opportunity to evade and/or likely self-employed have the most significant differences in these ranges. Contact seems to be negatively related to higher tax payments.

Table 4-17 provides information on the distribution of AGI per year for the same categories included in Table 4-16. Again, the numbers across each row (excluding the means in the two right hand columns) add up to 100 percent, and indicate percentages of taxpayers with AGI falling into the specified dollar ranges.

The means of AGI per year vary a great deal across various categories. However, the median AGI value is less than $25,000 in all but five categories (professional, sales, married couples filing a joint return, taxpayers with opportunity to evade, and taxpayers filing amended returns). As mentioned before, the high means can be attributed to a small number of very large values.

TABLE 4-17

PERCENTAGE DISTRIBUTIONS AND MEANS OF ADJUSTED GROSS INCOME BY VARIOUS CATEGORIES

Category	$7,500 or Less	$7,501 to $15,000	$15,001 to $25,000	$25,001 to $50,000	More Than $50,000	AGI Mean	Amnesty Tax Mean
Total	18.79	18.91	21.98	28.14	12.18	57,629.49	408.51
Occupation:							
Professional	3.55	7.89	18.15	38.86	31.55	188,741.73	694.95
Prof. Support	12.93	23.28	32.76	25.00	6.03	22,147.27	155.73
Sales	8.96	9.95	24.87	36.32	19.90	36,733.67	837.97
Skilled Labor	14.39	15.37	30.98	31.70	7.56	25,180.62	319.41
Unskilled Labor	15.15	21.97	26.14	33.33	3.41	21,725.59	212.91
Self-Employed	22.22	30.37	20.74	15.56	11.11	43,012.25	826.74
Retired/Student	41.59	28.10	16.15	11.73	2.43	13,925.82	174.67
Filing Status:							
Single	33.06	24.61	23.46	16.08	2.79	19,485.38	261.77
Married, Joint	3.03	12.38	20.52	41.39	22.68	101,026.35	571.15
Married, Separate	27.12	23.73	28.81	13.56	6.78	17,897.44	332.04
Gender:							
Male	29.67	26.37	22.83	17.83	3.30	18,241.15	302.05
Female	37.16	22.74	24.69	12.71	2.70	22,501.20	193.55
Other:							
Non-filer in 1986	17.11	19.22	25.07	27.93	10.67	110,121.01	594.98
Opportunity	0.00	0.00	0.00	51.79	48.21	108,801.25	1,816.86
Likely Self-Employed	24.69	25.91	21.05	18.22	10.13	33,039.92	773.63
Urban (in SMSA)	18.63	18.63	21.76	28.27	12.71	64,021.84	419.60
Amended Return	3.47	13.19	20.66	37.33	25.35	153,433.61	463.86
Contact Indicated	11.26	16.28	24.21	33.61	14.64	35,042.55	317.35

CHAPTER 5

AN OVERVIEW OF THE RESEARCH STUDY AND STATISTICAL METHODOLOGY

5.1   Introduction

The proper modeling of the noncompliance decision appears to be
predicated on identification of factors that are a part of the decision
making process.   This study provides an opportunity to identify factors
via an analytical examination of a portion of the Michigan Amnesty Data
Base.

Previous taxpayer data base research primarily has been performed on
IRS Taxpayer Compliance Measurement Program (TCMP) data.   The TCMP survey
itself consists of extensive audits of a stratified random sample of the
taxpaying population.   The information compiled on each individual
includes the reported amounts on the original return and amounts the
auditor deemed "correct" following the audit.

Despite the obvious advantages of TCMP surveys over alternative data
on tax evasion, it is important to identify two weaknesses regarding the
usefulness of the TCMP data in measuring tax evasion.   First, it is
difficult for auditors to detect many forms of unreported income.   Only
wage, salary, and some interest, dividend, and rental income are
independently reported to the IRS.   While auditors are able to identify
some unreported income, other types of income (e.g., moonlighting and
cash-only businesses) are very difficult to identify.   Since
noncompliance in these areas is understated, empirical research using
this data will be somewhat erroneous.   Second, the TCMP is unable to
reflect information on taxpayers who did not file returns.   Nonfilers
accounted for approximately 41 percent of unreported income in 1981

98

[Table 1-5]. It has been estimated that the TCMP data measures only 37 percent to 47 percent of all unreported income (i.e., filers who omit income and overstate deductions, and nonfilers) (Clotfelter [1983]). Finally, the TCMP data omit information on many demographic and all psychological variables that have been posited as part of the noncompliance decision process.

Previous research has called for the study of the characteristics of non-filers (Clotfelter [1983]). In addition, this research has encouraged a more complete examination of the characteristics of filers who have underreported income (Clotfelter [1983], Spicer [1986], Jackson and Milliron [1986]). The problem to this point has been a lack of new empirical data to examine. Since the Michigan Amnesty Data Base includes both types of taxpayers omitted by the TCMP, it may provide more useful information on these factors.

5.2 Statistical Analysis

Values of the measure of compliance used in this study are not expected to be concentrated at the limits, and thus, the need to use a technique designed for the analysis of censored dependent variables was eliminated. Since the focus of this research is on the explanation of, or prediction of, a dependent variable (the compliance measure), the regression model is appropriate.

Multiple regression is an appropriate method when some of the independent variables are continuous and some are categorical, when cell frequencies in a factorial design are unequal and disproportionate, and when one is studying trends in the data. The classic linear regression (CLR) model using the ordinary least squares estimator is probably the

most popular tool used by econometric researchers doing empirical work (Kmenta [1986] and Kennedy [1985, p.10]).

The regression model used to represent the relationship between various factors and taxpayer noncompliance can be expressed as follows:

$$Y_i = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \ldots + \beta_k X_{ki} + \epsilon_i$$

where

Y_i = a measure of taxpayer noncompliance for the ith taxpayer, i = 1, . . ., n. Estimated for each taxpayer by computing the natural log of unreported income (computed by dividing the amnesty tax paid by the appropriate tax rate).

X_{ki} = the kth factor, k = 1, 2, . . .,K, for the ith taxpayer. The factors to be examined are described above.

β_k = a parameter to be estimated for the various factors to be examined. β_k reflects the impact of X_{ki} on Y, holding all other variables constant.

ϵ_i = an error term.

The CLR model consists of five basic assumptions about the way in which the observations are generated.

1. The first assumption of the CLR model is that the dependent variable can be calculated as a linear function of an independent variable (or set of independent variables), plus an error term. The unknown coefficients of this linear function form the vector β and are assumed to be constants. Several violations of this assumption, called specification errors, are:

    Nonlinearity: When the relationship between the dependent and independent variables is not linear;

    Wrong Regressors: The omission of relevant independent variables or the inclusion of irrelevant independent variables; and

    Changing Parameters: When the parameters (β) do not remain constant during the period in which data was collected.

2. The second assumption of the CLR model is that the expected value of the error term is zero (i.e., the mean of the distribution from which the error term is drawn is zero).

3. The third assumption of the CLR model is that the disturbance terms all have the same variance and are not correlated with one another. Two violations of this assumption which are significant in econometric research are:

- **Heteroscedasticity**: When the errors do not all have the same variance; and

- **Autocorrelated Errors**: When the errors are correlated with one another.

4. The fourth assumption of the CLR model is that the observations on the independent variable can be considered fixed in repeated samples (i.e., it is possible to repeat the sample with the same independent variables). Econometric research may make several violations of this assumption as well:

- **Errors in Variables**: Errors in measuring the independent variables;

- **Autoregression**: Using a lagged value of the dependent variable as an independent variable; and

- **Simultaneous Equation Estimation**: Situations in which the dependent variables are determined by the simultaneous interaction of several relationships.

5. The fifth assumption of the CLR model is that the number of observations is greater than the number of independent variables and that there are no linear relationships between the independent variables. The problem of **multicollinearity** (two or more independent variables being approximately linearly related in the sample data) is associated with this assumption.

In the context of the CLR model, the OLS estimator has a large number of desirable properties. making it the overwhelming choice for the "optimal" estimator in much econometric research. The desirable properties of the OLS estimator include:

1. **Least Squares**: Because the OLS estimator is designed to minimize the sum of squared residuals, it is automatically "optimal" on this criterion.

2. **Highest R^2**: Because the OLS estimator is optimal on the least squares criterion, it will automatically be optimal on the highest R^2 criterion.

3. **Unbiasedness**: The assumptions of the CLR model can be used to show that the OLS estimator β^{OLS} is an unbiased estimator of β.

4. Asymptotic Criteria: Because the OLS estimator in the CLR model is unbiased, it is also unbiased in samples of infinite size and thus is asymptotically unbiased.

In econometric research, when the estimating situation can be characterized by the CLR model, the OLS estimator meets almost all the criteria that econometricians consider relevant. If, however, violations are made to the assumptions of the CLR model, different estimators may be appropriate. Several violations of the CLR model which may be relevant to this research are discussed below.

Nonlinearity. In practice, most econometric models are not linear. Running an OLS regression when this is not true is unsatisfactory, since parameter estimates not only are biased but also are without meaning except in so far as the linear functional form can be interpreted as an approximation to a nonlinear functional form. As the level of income variable in this study has been hypothesized to have a curvilinear relationship with the dependent variable, this data was plotted. The relationship of the data was found to be linear, and as a result no transformations were necessary.

Heteroscedasticity. In the CLR model, we assume that the error terms all have the same variance. This condition of nonconstant variance is known as homoscedasticity. It may be the case, however, that all of the error terms do not have the same variance. This condition is known as heteroscedasticity. The easiest way to determine whether or not heteroscedasticity exists is to visually inspect the residuals. The examination of residuals is discussed as part of the analyses in Chapter 6.

Multicollinearity. The fifth assumption of the CLR model specifies that there are no exact linear relationships between the independent

variables. Although an exact linear relationship among independent variables is unusual, it is very possible to have an approximate linear relationship among some variables. Such relationships are common in economics, and this study is not excepted. Although the estimation procedure does not break down when the independent variables are highly correlated (i.e., approximately linearly related), severe estimation problems arise.

The OLS estimator in the presence of multicollinearity remains unbiased, and is still the best linear unbiased estimator. The R^2 statistic is unaffected. The major undesirable consequence of multicollinearity is that the variances of the OLS estimates of the parameters of the collinear variables are quite large. These high variances arise because in the presence of multicollinearity the OLS estimating procedure is not given enough independent variation in a variable to calculate with confidence the effect it has on the dependent variable. Such a situation may result in a large coefficient of determination (R^2) accompanied by statistically insignificant estimates of the coefficients of the independent variables. At least one of the independent variables appear to influence systematically the dependent variable, but which variable is causing the influence cannot be determined. In this study, the sample size is large, which minimizes the impact of multicollinearity.

Dummy Variables. As certain items of data are categorical variables, dummy coding of the categorical variables was performed to allow analysis.

Regression Selection Technique Utilized. A stepwise selection of the variables will be used within the regression model to predict

noncompliance. Stepwise selection of the predictor variables is really a combination of the backward and forward selection procedures. The first variable considered for entry into the equation is the one with the largest positive or negative correlation with the dependent variable. An F test for the hypothesis that the coefficient of the entered variable is zero is then calculated. To determine whether this variable (and each succeeding variable) is entered, the probability associated with F statistic is compared to a .05 probability level. A variable enters the equation only if the probability associated with the F test is less than or equal to .05.

After inclusion of the first variable (if one is significant), the second variable is selected based on the highest partial correlation. If it passes the entry criterion (probability of .05), it also enters the equation. At this point, the first variable is examined to see whether it should be removed from the regression equation. For this study, the removal criterion is a probability of .10. As a result, after inclusion of the second variable, if the probability associated with the F statistic is greater than .10, the variable is removed from the equation. In the next step, variables not in the equation are examined for entry. After each step, variables already in the equation are evaluated for removal. This process continues until no more variables meet entry and removal criteria. The micro-computer statistical package used to conduct this analysis was SPSS-PC+.

5.3   Description of Variables

As previously noted, there is little agreement in the literature regarding the relative salience of identified compliance factors and the

manner in which these variables are related to tax compliance. This analysis will provide relevant information regarding certain variables. The variables to be analyzed are predicated on the information obtained during the Michigan Amnesty Program, and are generally limited to certain economic and demographic variables.

A list of the variables to be analyzed is contained in Figure 5-1. The independent variables are grouped into two categories -- factors previously identified and new variables. In addition, the expected sign of the regression coefficients is provided.

5.3.1   Dependent Variable

This research, like Clotfelter [1983], Madeo, et. al. [1985], and Witte and Woodbury [1985], will use a direct measure of compliance derived from the actual reporting behavior of amnesty participants as the dependent variable. Previous studies have used a variety of measures to measure noncompliance. However, because of the nature of the data and the independent variables available for analysis, the noncompliance measure will be the natural log of unreported income.

Many TCMP studies have used the ratio of amnesty tax paid to total correct tax liability (after adjustments) as the measure of noncompliance. This measure cannot be used in this study because about 25 percent of amnesty participants paid in all of their tax liability during amnesty. For these taxpayers the noncompliance ratio measure would be 1, prohibiting the use of regression analysis.

Many economic studies use the natural log of a monetary amount as a dependent variable (e.g., many labor economic studies). In addition, the Clotfelter study (mentioned above) used the natural log of unreported income as the dependent variable.

FIGURE 5-1

RESEARCH VARIABLES

DEPENDENT VARIABLE

- Log of unreported income (amnesty tax paid/appropriate tax rate)

INDEPENDENT VARIABLES

	Expected Sign of Regression Coefficient
■ **Factors Previously Identified:**	
Not Yet Tested Empirically:	
1. Gender (male)	+
2. Tax return preparation	−
3. Opportunity (occupation, income level, income source)	+
Empirically Tested Yielding Ambiguous Results:	
1. Filing (marital) status (single)	+
2. Geographic location (utilizing SMSA regions in Michigan)	+/−
3. Occupation	+/−
4. Self-employment	+
5. Enforcement agency contact	−
6. Income level (log of adjusted gross income)	+
■ **New Factors To Be Examined:**	
1. Exemptions	−
2. Amnesty participants failing to file a return in 1986	+

Another benefit of using the log of unreported income as the dependent variable relates to interpretation of regression coefficients. When a regression linear in logarithms includes dummy variables (as this study does), the coefficient of a dummy variable may be interpreted as the percentage impact on the dependent variable (here, unreported income) of the qualitative variable it represents.

5.3.2   Independent Variables

Factors Previously Identified.   The analysis of previously identified factors is conducted along two lines, analytically examining factors that have previously been identified as potentially a part of the noncompliance decision process. The study examines variables that:

1.   Have not been tested with taxpayer data due to data limitations, or

2.   Have been tested against taxpayer data yielding ambiguous results.

The first line of analysis includes an examination of gender and influence of tax return preparers. In addition, the composite variable opportunity (income level, income source, and occupation) previously posited as a part of the noncompliance decision process, but never before empirically tested, is examined. The second line of analysis includes an examination of filing status, geographic location (using the SMSA variables discussed in Chapter 4), occupation, contact by enforcement agency, and income level. In addition, the data provides an opportunity to look at noncompliance across several years when the Michigan tax rate varied.

Additional Factors To Be Analyzed.   The research will examine two other factors using the data collected. These factors include exemptions

(a potential surrogate for family size), whether or not the taxpayer filed a 1986 income tax return, and a second self-employment variable.

As mentioned in Chapter 4, the 1986 nonfiler variable was created by cross-checking participants who filed during amnesty with the various 1986 master files maintained by the Treasury Department. Although no direct attitudinal variables are part of the Michigan Amnesty Data Base, a participant's action of not filing a return does provide some measure of an attitude regarding compliance. Therefore, this information is analyzed as a part of formal research in this study. Of taxpayers in the research data base, 26.96 percent failed to file a return in 1986.

In addition to those taxpayers who identified themselves as self-employed in the occupation information, the data was examined in an attempt to classify taxpayers as self-employed without using the occupational self-employment disclosure data in the Michigan Amnesty Data Base. A separate self-employment variable was then created for analysis. Specifically, taxpayers were assigned to this class if (1) no taxes were withheld, (2) no W-2 was present with the amnesty return information, and (3) an occupation other than retired, student, deceased, or other was disclosed. This classification is different than the self-employment occupational variable since it includes taxpayers who did not disclose self-employment as an occupation, and excludes certain taxpayers who disclosed self-employment as an occupation (if either of the first two conditions for selection were true).

5.4   A Summary of the Data Bases To Be Analyzed

5.4.1   Primary Research Data Base

A total of 2,985 data lines (one for each tax return) exist in the individual portion of the Michigan Amnesty Data Base. Of these data lines, two classes of returns were segregated out of the data base in creating the research data base used in this study.

As mentioned in Chapter 4, no tax return data were available for some amnesty participants when the data were collected, coded, and keyed into the data base. Either these taxpayers filed an amnesty application and paid the tax and interest due but did not file a state tax return, or the state tax return was in use for some other Treasury procedure (audit or review) at the time of data collection.

In addition, certain amnesty returns in the sample showed a zero amnesty tax payment, or refund due the taxpayer as a result of filing. These lines were also removed during creation of the research data base.

In total, these data lines comprised 515 returns and $283,058 in amnesty tax. When these two groups of returns are removed, 2,470 lines of data are left, forming the primary research data base used in this study.

5.4.2   Data Bases Constructed to Evaluate Taxpayers Without
Treasury Department Contact

As discussed in Chapter 4, participants filing non-amended tax returns as part of amnesty can be divided into two groups. Based on information collected from the amnesty applications, it appears that some amnesty participants were a part of the Michigan and federal tax systems, while other participants probably were outside the systems. The second

group of taxpayers is of interest since these taxpayers are more likely to include advertent noncompliers.

Taxpayers were categorized into the second group if all of the following were false:

1. The return indicated that the tax liability had partially been paid through withholding;

2. The return indicated that the tax liability had partially been paid through payments of estimated tax;

3. A W-2 form was attached to the return; or

4. The amnesty materials contained a copy of a letter from the Michigan Department of Treasury sent to the taxpayer prior to amnesty. The taxpayers receiving such a letter had been identified from a match of federal taxpayers with Michigan addresses, and indicated that the Department of Treasury had knowledge of a federal return being filed with a Michigan address.

Using data lines selected, two data bases were created to explore factors that are part of the noncompliance decision for these amnesty participants. The no contact taxpayers (roughly 630 lines of data out of 2470 in the entire research data base) paid in about 86 percent of their tax liability during amnesty.

Primary No Contact Data Base. To discriminate between the contact and no-contact amnesty participants, approximately the same number of data lines were selected from taxpayers known to Treasury who made only small payments during amnesty (these taxpayers paid in approximately 23 percent of their tax liability during amnesty). These two sets of data were merged together into a data base (titled CONNCON.SYS) for analysis.

As mentioned above, the primary reason for creating this data base was to explore differences between amnesty participants with some prior contact and those who had no prior contact. The determination of prior contact was made with the data in the research data base. The taxpayers

with contact in this data base generally paid small amounts of tax via amnesty. As a result, these taxpayers may be thought of as delinquent filers rather than tax evaders.

However, this data base (and its subsequent analysis) is not likely to provide insight into differences between compliant and noncompliant taxpayers, because it may not be reflective of the taxpaying population in Michigan. It merely provides some insight into differences between amnesty participants with and without contact.

Secondary No Contact Data Base. Of the taxpayers in the primary no contact data base, the retired/student occupational group typically had low incomes and made small amnesty payments. Although they may be nonfilers, perhaps they should not be classified as chronic tax evaders.

For this reason, the primary no contact data base was modified, and a second no contact data base is created (a subset of the primary no contact data base; titled CONNCON2.SYS) by removing those taxpayers whose occupation was coded as OCT7 (retired, students, and other).

5.4.3   Stratified AGI Data Bases

Previous researchers have indicated that stratification of data bases in different ways (e.g., by level of income) may provide additional useful information (see, for example, Witte and Woodbury [1985]). With this in mind, this study stratified the research data base by level of adjusted gross income. The following summarizes the five AGI stratas analyzed in this study:

AGI	N	%	Amnesty Tax	%	Average Amnesty Tax	Average AGI
Less than $ 7,500	464	18.8	$ 49,316.15	4.9	$ 106.28	$ 4,568.04
$ 7,500 - 14,999	467	18.9	95,740.59	9.5	205.01	11,105.55
15,000 - 24,999	543	22.0	152,257.47	15.1	280.40	19,753.05
25,000 - 49,999	695	28.1	278,403.86	27.6	400.58	35,296.83
50,000 or more	301	12.2	433,310.59	42.9	1,439.57	331,500.89
TOTALS	2,470	100.0	$1,009,028.66	100.0	$ 408.51	$ 57,629.49

5.4.4   Missing Information

As would be expected, the data in the research data base has complete information in certain circumstances (e.g., adjusted gross income, amnesty tax paid, zip code data, 1986 return filing, and exemptions) and missing values related to other variables (e.g., filing status, occupation, gender, tax return preparation, and contact with the Treasury Department). Where missing values existed, a mean substitution of the variable in question was deemed to be appropriate. For example, of the 2,470 data lines, only 2,085 had occupational data. For the data lines with missing occupational information, the mean substitution was made by giving each such data line a decimal equivalent for _each_ of the seven occupations. The decimal equivalent was based on the occupational distribution among the 2,085 valid codings. Other missing value mean substitutions were made in a similar manner.

5.5   Summary

This chapter describes the analyses to be performed (including the dependent and independent variables), the data bases used in the analyses, and the statistical technique used in the analyses. Chapter 6 presents the results of the statistical analyses.

CHAPTER 6

RESULTS AND ANALYSIS

6.1   Introduction

Chapter 5 provided a summary of the research and the methodology to be used in making conclusions regarding the data. This chapter reports on the various regression analyses performed on the data. Before proceeding with a discussion of the results, a short review of the various statistics is warranted.

Goodness of Fit. An important part of any statistical procedure that builds models from data is establishing how well the model actually fits. A commonly used measure of the goodness of fit of a linear model is R^2, sometimes called the coefficient of determination. It can be thought of in a variety of ways. Besides being the squared multiple correlation (indicating the proportion of variance of the dependent variable accounted for by the optimally weighted independent variables), it is also the squared product-moment correlation of the observed dependent variables and the predicted values of the dependent variables, which are of course a linear combination of the independent variables. If all the variance in the dependent variable is accounted for, R^2 is 1. If there is no linear relationship between the dependent and independent variables, R^2 is 0. It is important to note that R^2 is a measure of the goodness of fit of a particular model. An R^2 of 0 does not necessarily mean that there is no association between the variables; it only indicates that there is no _linear_ relationship.

The sample R^2 tends to be an optimistic estimate of how well the model fits the population. Normally, the model does not fit the

population as well as it fits the sample from which it is derived. The statistic "adjusted R^2" attempts to correct R^2 to more closely reflect the goodness of fit of the model in the population (e.g., see Cohen [1975], p. 106).

Regression Coefficients. In the regression equation, the least-squares coefficients (B) are used to estimate the unknown population parameters (ß). Each regression coefficient in a multiple regression equation indicates the expected change in the dependent variable associated with a one unit change in the variable under consideration while controlling for, or holding constant, the effects of the other independent variables. As a result, B's in multiple regression are referred to as partial regression coefficients.

Tests of Significance - In General. It is necessary to remember that all that is meant by a statistically significant finding is that the probability of its occurrence is small, assuming that the null hypothesis is true. It is the substantive meaning of the finding that is paramount. A statistically significant finding is of no value if it is not substantively meaningful. It has been said that "we should not feel proud when we see a researcher smile and say 'the correlation is significant at the .01 level.' Perhaps that is the most he can say, but he has no reason to smile" (Nunally [1960]).

Test of the Goodness of Fit. Usually, the first test of interest is to determine the probability that some linear relationship exists between the dependent variable and the set of independent variables. An overall F test is used to test the null hypothesis that there is no linear relationship (i.e., $B_1 = B_2 = B_3 = B_4 = . . . = B_i = 0$). The F statistic is the ratio of the mean square regression (R^2 divided by the appropriate

degrees of freedom) to the mean square residual [(1 - R^2) divided by the appropriate degrees of freedom].

Test of Significance of Regression Coefficients. Like other statistics, the regression coefficient has a standard error associated with it. The standard error of the regression coefficient is the standard deviation of the sampling distribution of the regression coefficient, and therefore, it can be used to test the significance of the regression coefficient.

Dividing a regression coefficient by its standard error yields a t-statistic (or t ratio). When a given regression coefficient is tested for significance, the question being addressed is whether it differs from zero while controlling for the effects of the other independent variables. Multicollinearity among the independent variables leads to larger standard errors of the regression coefficients (i.e., the larger the intercorrelation among the independent variables, the larger the standard errors). As a result, when independent variables are highly intercorrelated, the chance of finding statistical significance in the regression coefficients diminishes. This test is different than the test of R^2 in a multiple regression equation, which is tantamount to testing all the regression coefficients simultaneously.

With the use of the t-statistic, confidence intervals can be set around the regression coefficients. The use of confidence intervals in preference to tests of significance has been strongly advocated by many statisticians. Probably the most important argument is that a confidence interval provides more information than that provided by a statement about the rejection of a null hypothesis. In addition, a confidence interval enables a researcher to test simultaneously all possible null

hypotheses. The narrower the confidence interval, the smaller the range of null hypotheses, and therefore, more confidence can be placed in the findings.

Testing Increments in Proportion of Variance Accounted For. Another way of assessing the relative importance of independent variables is to consider the increase in R^2 when a variable is entered into the equation. The test for an increment in the proportion of the variance accounted for is also an F test. Two points should be made about this test. First, testing the increment in proportion of variance accounted for by a single variable is equivalent to the test of the regression coefficient associated with the variable. Second, the increment in the proportion of variance accounted for by a given variable (or set of variables) may be considerably different from the proportion of variance it accounts for by itself, the difference being directly a function of the correlations of the variable with the other variables in the equation.

Interpretation of Regression Coefficients of Dummy Variables When Dependent Variable Is Expressed in Log Units. When a regression linear in logarithms includes dummy variables (as this study does), the coefficient of a dummy variable may be interpreted as the percentage impact on the dependent variable (here, unreported income) of the qualitative variable it represents.

6.2   An Overview of the Multiple Regression Analyses

6.2.1   In General

Table 6-1 presents a brief summary of the 8 regressions run as part of this study. The summary includes the significant regression coefficients (in selection order) and the t-statistics for each. In

TABLE 6-1
**** **M U L T I P L E R E G R E S S I O N S U M M A R Y** ****

Dependent Variable.. NONCOMP LOG OF UNREPORTED INCOME

———————————————————————————————— Variables in the Equation ————————————————————————————————

RESALL2.SYS (ENTIRE RESEACH DATA BASE)				CONNCON.SYS (CONTACT & NO CONTACT TAXPAYERS)				CONNCON2.SYS (CONNCON.SYS WITHOUT RET'D/STUDENTS)			
Variable	B	T	Sig T	Variable	B	T	Sig T	Variable	B	T	Sig T
AGILN	.58888	18.679	.0000	SELFEMPL	1.50225	10.557	.0000	SELFEMPL	1.48814	10.095	.0000
CONTACT	-.93359	-13.208	.0000	OCT3	1.15694	7.055	.0000	OCT3	1.10215	6.367	.0000
OPPORT	.84392	4.393	.0000	OPPORT	1.84707	4.836	.0000	OPPORT	1.80217	4.491	.0000
OCT3	.58912	5.899	.0000	OCT6	.87073	4.604	.0000	OCT6	.87154	4.388	.0000
OCT6	.53310	4.146	.0000	NOFILE86	.38644	4.169	.0000	AGILN	.28616	4.944	.0000
NOFILE86	.17434	2.923	.0035	GENDER	.50863	5.617	.0000	GENDER	.73394	6.034	.0000
PDPREF	.16548	3.001	.0027	AGILN	.29101	6.018	.0000	NOFILE86	.48096	4.462	.0000
SMSA2	.33982	2.544	.0110	OCT7	.56012	4.528	.0000	SMSA10	-.66824	-3.304	.0010
RATE635	-.13441	-2.452	.0143	SMSA10	-.58539	-3.426	.0006	OCT5	-.38250	-2.517	.0120
OCT5	-.26126	-2.958	.0031	OCT5	-.36186	-2.507	.0123	EXEMPT	.09232	2.202	.0279
SELFEMPL	.29934	2.466	.0137	SMSA1	-.21078	-2.410	.0161	SMSA1	-.22488	-2.179	.0296
GENDER	.19001	2.830	.0047	RATE635	-.18244	-2.082	.0375	(Constant)	3.48266	6.155	.0000
EXEMPT	.04797	2.140	.0324	(Constant)	3.77791	7.621	.0000				
(Constant)	2.27921	7.866	.0000								

Multiple R	.51300			Multiple R	.50019			Multiple R	.52867	
R Square	.26317			R Square	.25019			R Square	.27949	
Adj R Square	.25927			Adj R Square	.24286			Adj R Square	.27130	
Std Error	1.30457			Std Error	1.45664			Std Error	1.52482	

INDEPENDENT VARIABLES

NAME	DESCRIPTION	NAME	DESCRIPTION
AGILN	LOG OF AGI	SMSA1	METRO DETROIT
SELFEMPL	SELF-EMPLOYED (PROFESSIONAL, SALES, OR SELF-EMPLOYED; NO WITHHOLDING; ZERO OR POSITIVE ESTIMATED TAXES)	SMSA2	ANN ARBOR
		SMSA3	JACKSON
GENDER	SINGLE, MALE TAXPAYERS	SMSA9	BENTON HARBOR
CONTACT	PRIOR TREASURY CONTACT	SMSA10	GRAND RAPIDS/HOLLAND
OPPORT	OPPORTUNITY (PROFESSIONAL, SALES, OR SELF-EMPLOYED; AGI $30000+; ACCESS TO CASH INCOME SOURCES)	URBAN	TAXPAYER IN SMSA
		EXEMPT	EXEMPTIONS
NOFILE86	NONFILER IN 1986	RATE635	TAX YEAR 1983 (TAX RATE=6.35%)
PDPREP	PAID PREPARER		
OCT3	SALES		
OCT5	UNSKILLED LABOR		
OCT6	SELF-EMPLOYED		
OCT7	OTHER (STUDENT, RETIRED, OTHER)		

TABLE 6-1 (CONTINUED)

Dependent Variable..   NONCOMP   LOG OF UNREPORTED INCOME

──────────────────────────────── Variables in the Equation ────────────────────────────────

AGI1.SYS (AGI LT $7500)			
Variable	B	T	Sig T
AGILN	1.13508	13.099	.0000
EXEMPT	-.27490	-4.940	.0000
CONTACT	-.32869	-3.898	.0001
OCT3	.70379	3.172	.0016
OCT7	.32602	3.375	.0008
GENDER	.27088	2.995	.0029
RATE533	-2.48008	-2.790	.0055
(Constant)	-2.15303	-3.000	.0028

Multiple R   .56322
R Square   .31722
Adj R Square   .30674
Std Error   .88353

AGI2.SYS (AGI $ 7501-$14999)			
Variable	B	T	Sig T
CONTACT	-.83076	-6.628	.0000
OCT6	.84747	4.068	.0001
AGILN	.87965	3.025	.0026
OCT4	.39623	2.340	.0197
EXEMPT	-.11332	-2.366	.0184
SELFEMPL	.48258	2.101	.0362
(Constant)	-.02895	-.011	.9914

Multiple R   .42677
R Square   .18213
Adj R Square   .17146
Std Error   1.20504

AGI3.SYS (AGI $15000-$24999)			
Variable	B	T	Sig T
CONTACT	-1.20054	-6.780	.0000
OCT6	1.04280	3.788	.0002
OCT3	.70344	3.420	.0007
URBAN	-.49282	-3.236	.0013
SMSA3	1.00124	2.306	.0215
SELFEMPL	.58814	2.060	.0399
(Constant)	8.89459	43.865	.0000

Mult'ple R   .47454
R Square   .22519
Adj R Square   .21651
Std Error   1.35489

AGI4.SYS (AGI $25000-$50000)			
Variable	B	T	Sig T
CONTACT	-1.46137	-9.159	.0000
OPPORT	.92541	3.717	.0002
AGILN	1.04657	4.122	.0000
OCT3	.55846	3.439	.0006
PDPREP	.36589	3.643	.0003
NOFILE86	.27120	2.457	.0142
SMSA9	1.28879	2.434	.0152
(Constant)	-2.10402	-.792	.4289

Multiple R   .49381
R Square   .24384
Adj R Square   .23614
Std Error   1.26407

AGI5.SYS (AGI $50000+)			
Variable	B	T	Sig T
CONTACT	-2.35573	-8.052	.0000
AGILN	.73288	6.893	.0000
EXEMPT	.27781	4.370	.0000
NOFILE86	.86327	4.015	.0001
OCT1	-.74837	-3.802	.0002
SMSA2	.84350	1.887	.0602
RATE635	-.53893	-2.841	.0048
URBAN	1.24164	3.954	.0001
PDPREP	.49987	2.448	.0149
SMSA1	-.53720	-2.380	.0179
SMSA9	-2.06258	-2.272	.0238
(Constant)	.69604	.568	.5703

Multiple R   .64297
R Square   .41341
Adj R Square   .39108
Std Error   1.52415

addition, multiple R, and R square for each regression are presented. A detailed discussion of each of the regressions along with a comparison of the results with previous research in the area of noncompliance occurs later in this Chapter. However, a review of the results in Table 6-1 will indicate that the various regression equations confirm that certain variables (previously identified in survey, experimental, and analytical research) are part of the noncompliance decision.

This study is unique in that the data being analyzed are related to amnesty participants. As stated previously, these taxpayers are a subset of all tax evaders. Previous analytical work in the noncompliance area has typically used Taxpayer Compliance Measurement Program (TCMP) data for analysis. This data (discussed more fully in Chapter 2) is collected from detailed audits of taxpayers known to the Internal Revenue Service. The results of this study, therefore, may not be directly comparable to prior research since a different type of taxpayer is involved.

6.2.2 A General Discussion About the Assumptions of the Regression Model as it Applies to this Study

In Chapter 5, potential violations of the β^{OLS} regression in this study were briefly discussed. Conclusions regarding these potential violations are discussed here, and in the discussion of each of the regression analyses as needed.

Specification Errors. The first assumption of the classic linear regression model states that the dependent variable can be written as a linear function of a specific set of independent variables, plus a disturbance term. Specification errors can occur where relevant independent variables are omitted, or irrelevant independent variables

are included. In addition, a nonlinear functional form will lead to specification error.

The relationship between the independent variables selected for analysis and the measure of noncompliance used as the dependent variable can be defended based on prior theory (e.g., gender, self-employment, contact, opportunity, et. al.), or the specific nature of the data set (e.g., SMSA's).

Because of the large numbers of small payments in the data set, it was decided to logarithmically transform the dependent variable and adjusted gross income. The added benefit of being able to discuss the regression coefficients of the dummy variables in terms of percentage impact on the dependent variable was previously mentioned. As a result, there appears to be a sufficient basis for concluding that specification error has been minimized in the regression results.

Measurement Errors. Many researchers feel that measurement error (or errors in variables) present the greatest drawback to econometric research. Here, we are concerned with the implication of using incorrectly measured variables. In Chapter 3, there was a brief discussion of the 10 percent sample data and its relationship to the population from which it was drawn. In Chapter 4, there was a discussion of several items that might lead to a measurement error problem -- the coding of occupations and the lack of this data on about 10 percent of the returns, and the various range and accuracy tests performed on the research data base. However, given the corrections to the data made, and relying on the 10 percent sample as representative of the population from which it was drawn, there is support for a conclusion of minimal measurement errors in the data set.

Heteroscedasticity. The regression model is relatively robust for violations of the assumption of heteroscedasticity (Pedhazur [1982]). The standardized residuals in each of the regressions were plotted against standardized predicted dependent variables, and against a normal distribution. The plots generally indicate that this assumption is not violated. Further discussion of the residual analysis occurs in the discussion of each of the regressions.

Multicollinearity. Although, technically, there is no multicollinearity unless there is an exact linear relationship between independent variables, there is a possibility that several independent variables are highly correlated (approximately linearly related). Even in this case, the problem can lead to imprecise estimation of the regression coefficients, and adverse effects on their standard errors (leading to a negative impact on their statistical significance and increasing their confidence intervals).

The ordinary least squares estimator in the presence of multicollinearity remains unbiased, however, and is still the best linear unbiased estimator. The R^2 statistic is unaffected. In this study, because of the size of the data set, and the regression methodology employed (stepwise selection) multicollinearity is minimized.

Statistical Package Used for the Regression Analyses. The multiple regression procedure of the SPSS-PC+ package was utilized with stepwise selection (with a significance level of .05) to predict the variables that are part of the noncompliance decision. A more detailed discussion of the stepwise procedure utilized can be found in Chapter 5.

Discussion of Results. The discussion of results will be partitioned into three sections, as follows:

6.3   Regression Analysis of the Research Data Base

6.4   Regression Analyses of the Non-Contact Data Bases

6.5   Regression Analyses of the Stratified AGI Data Bases

As mentioned in Chapter 5, there are two non-contact data bases, one which includes all returns where no contact was indicated, and a second that excludes taxpayers who identified themselves as retired, students, or several other minor occupational categories. There are five stratified AGI data bases.

6.3   Regression Analysis of the Research Data Base

6.3.1   In General

Table 6-2 presents the regression results for the entire research data base. The analysis of the regression occurs along several lines, including a discussion of the goodness of fit (R^2), an analysis of the regression coefficients and their confidence intervals, and a comparison of the results with prior research.

6.3.2   Goodness of Fit

The model has a R^2 of .2632, and an adjusted R^2 of .2593 with 13 variables in the equation. As a result, the independent variables in the model account for about 26 percent of the variance in the dependent variable (unreported income). This result seems reasonable, given the limitations of the data set (i.e., this analysis includes no psychological [or attitudinal] variables, and only a portion of the various economic and demographic variables). Similar noncompliance research has reported R^2 statistics of from about 20 percent to 45 percent. In addition, most behavioral researchers would consider a R^2 of .2632 to be both meaningful and of large magnitude (Cohen [1977]).

The power of this analysis (i.e., the probability of rejecting the null hypothesis that the population multiple correlation is equal to zero) can be computed using a technique detailed in Cohen & Cohen [1975] which makes use of the sample size, the R^2 statistic, and the number of independent variables in the equation. Given 2,470 cases, an R^2 of .2632, and 13 independent variables, the power of the analysis greatly exceeds .99 (a sample size of 135 would have resulted in a power computation of .99; as all analyses performed in this study have at least

TABLE 6-2

REGRESSION TO PREDICT NONCOMPLIANCE USING RESEARCH DATA BASE

Variable Name	Coefficient (Standard Error)	t (Significance)	R^2 Adjusted R^2
AGILN	.58888 (.03153)	18.679 (.0000)	.1137 .1134
CONTACT	-.93359 (.07068)	-13.208 (.0000)	.2135 .2129
OPPORT	.84392 (.19211)	4.393 (.0000)	.2272 .2263
OCT3	.58912 (.09987)	5.899 (.0000)	.2389 .2376
OCT6	.53310 (.12859)	4.146 (.0000)	.2472 .2456
NOFILE86	.17434 (.05964)	2.923 (.0035)	.2501 .2483
PDPREP	.16548 (.05514)	3.001 (.0027)	.2529 .2508
SMSA2	.33982 (.13357)	2.544 (.0110)	.2550 .2526
RATE635	-.13441 (.05482)	-2.452 (.0143)	.2569 .2542
OCT5	-.26126 (.08831)	-2.958 (.0031)	.2588 .2558
SELFEMPL	.29934 (.12137)	2.466 (.0137)	.2605 .2572
GENDER	.19001 (.06713)	2.830 (.0047)	.2618 .2582
EXEMPT	.04797 (.02242)	2.140 (.0324)	.2632 .2593
Constant	2.27921 (.28975)	7.866 (.0000)	

135 cases, no further mention of the power of these analyses will be made).

The order of the variables into the equation, and their impact on R^2 is as follows (all variables except AGILN and EXEMPT are dummy variables). The log of AGI (AGILN) enters the equation first with a R^2 of .1137. Prior contact with the Treasury Department (CONTACT) enters next and increases R^2 by .0998. Opportunity to evade (OPPORT) then increases R^2 by .0137 to .2272. Taxpayers who disclosed an occupation of sales (OCT3) enters the equation next and increases R^2 by .0117 to .2389. Taxpayers who disclosed an occupation of self-employed (OCT6) then enters the equation and increases R^2 by .0083 to .2472. Among amnesty participants were certain taxpayers who continued their nonfiling in 1986. The dummy variable created to signify these (NOFILE86) taxpayers enters the equation next, increasing R^2 by .0030 to .2501. The variable created to signify amnesty participants who used paid preparers to help with their return process (PDPREP) enters next, with a .0027 contribution to R^2. The next variable to enter is SMSA2, which represents taxpayers in the Ann Arbor SMSA. It increases R^2 by .0021 to .2550. The next two variables to enter the model (RATE635; variable that represents returns filed when the tax rate was 6.35 percent) and OCT5 (representing unskilled labor) each contributes an additional .0019 to the R^2, increasing it to .2588. The variable that was constructed to indicate self-employment via an examination of other data in the research data base other than occupation coding (SELFEMPL) enters next, with a contribution of .0017 to R^2. The variable constructed to indicate single males (GENDER) enters the regression equation next, increasing R^2 by .0013 to .2618. The number of exemptions (EXEMPT) claimed on the return

(a surrogate for family size) enters the model last, and increases R^2 by .0014 to .2632.

As can be seen from Table 6-2, five of the thirteen variables (AGILN, CONTACT, OPPORT, OCT3, and OCT6) account for 24.72 percent of the variance in the dependent variable, and about 94 percent of the variance accounted for by all thirteen variables (26.32 percent). Although statistically significant, the last eight variables make relatively small contributions to R^2.

Although not significant at the .05 level, four other variables are significant at the .10 level. They are OCT7 (occupation coded as retired and students), FSTATUS (a dummy variable coded for single taxpayers), SMSA3 (representing Jackson), and SMSA9 (representing Benton Harbor). All four variables are positively associated with the dependent variable.

6.3.3   Analysis of Regression Coefficients and Confidence Intervals

Table 6-3 presents the regression coefficients for each of the independent variables in the regression equation, along with their standard error and computed 95 percent confidence intervals. As the dependent variable in this study is expressed in log units, the coefficient of the dummy variables in the regression equation may be interpreted as the percentage impact on the dependent variable (here, unreported income) of the qualitative variable it represents.

Log of AGI (AGILN). The estimated regression coefficient of adjusted gross income is .58888. The regression coefficients for a continuous variable expressed in logarithms would normally be interpreted as the percentage change in the dependent variable given a doubling of the independent variable. However, as the regression coefficient

TABLE 6-3

CONFIDENCE INTERVALS OF REGRESSION COEFFICIENTS FOR RESEARCH DATA BASE

Variable Name	Coefficient	Standard Error	95 Percent Confidence Interval	
AGILN	.58888	.03153	.52705	.65070
CONTACT	-.93359	.07068	-1.07219	-.79498
OPPORT	.84392	.19211	.46721	1.22063
OCT3	.58912	.09987	.39328	.78496
OCT6	.53310	.12859	.28095	.78525
NOFILE86	.17434	.05964	.05739	.29130
PDPREP	.16548	.05514	.05736	.27360
SMSA2	.33982	.13357	.07791	.60174
RATE635	-.13441	.05482	-.24190	-.02691
OCT5	-.26126	.08831	-.43444	-.08808
SELFEMPL	.29934	.12137	.06134	.53735
GENDER	.19001	.06713	.05837	.32166
EXEMPT	.04797	.02242	4.017955E-03	.09193
(Constant)	2.27921	.28975	1.71103	2.84740

increases in size, this interpretation begins to break down. Specifically, a doubling of the independent variable will result in a 2^b increase in the dependent variable (where b is the regression coefficient).

Given this fact, amnesty participants with twice as much adjusted gross income relative to other amnesty participants had about 50.41 percent ($2^{.58888}$ - 1) more unreported income in AGI, ceteris paribus.

This finding suggests that noncompliance increases as income increases, and is consistent with the findings of Mork [1975], Clotfelter [1983], and Witte and Woodbury [1985]. In addition, the result is consistent with the hypothesis of increasing absolute risk aversion, commonly accepted as a reasonable assumption in models of individual choice under uncertainty (see, for example, Allingham and Sandmo [1972]). The regression coefficient is within the range of the Clotfelter study, which estimated regression coefficients of .292 for non-business returns, .620 for non-farm business returns, and .656 for farm returns.

However, this variable is dominant (as is the next variable to enter the equation), with a t-statistic almost three times as large as Clotfelter's. A potential explanation of the strength of its significance is that during the amnesty program, those taxpayers who had the most to lose were those with higher levels of income. As a result, it was these taxpayers who came forward during amnesty. As a result, a clear finding that noncompliance increases as income increases cannot be made.

As previously was mentioned, depending on the data base used, dominance by either low or high income level taxpayer noncompliance may mask noncompliance at the opposite end of the spectrum. This may be the

case with this data set. Based on a review of descriptive statistics, the amnesty program was dominated by participants making low amnesty payments. In addition, the highest level of participation by occupation occurred among retired taxpayers, and students comprised the fourth highest group. Both of these groups reported relatively low levels of income. As noted briefly above, the occupation variable for retired and students (OCT7) was positively correlated to noncompliance and significant at the .10 level.

Witte and Woodbury [1985] suggest that the relationship between income level and compliance is really curvilinear, with low-income and high-income taxpayers being noncompliant. It would appear that this data set might lend some support to that conclusion.

A question that must be addressed is why low income taxpayers are noncompliant. Part of it surely is a belief that those with the most to lose are the most at risk (i.e., a little fish in a big sea is not likely to get caught). In addition, however, it could be that these taxpayers may need additional help from the enforcement agencies, or that they legitimately believe that they do not owe any taxes because they are earning too little.

The 95 percent confidence interval for this coefficient ranges from .52705 to .65070, indicating that the population parameter would fall in this range 95 percent of the time. The range indicates that (after adjusting for the size of the coefficients) an individual amnesty participant with twice as much in adjusted gross income as another individual participant could have from 44.1 to 57.0 percent more unreported income, ceteris paribus.

Contact (CONTACT). The estimated regression coefficient of the contact variable is -.93359, with a 95 percent confidence interval ranging from -.79498 to -1.07249. Taxpayers having some form of Treasury Department contact prior to amnesty (withheld taxes, estimated taxes, a W-2, or a letter from Treasury requesting information regarding a state tax return) had on average 93.36 percent less unreported income than those amnesty participants who had no contact prior to amnesty, ceteris paribus. The 95 percent confidence interval for the population parameter ranges from 79.5 percent to 107.2 percent less unreported income than amnesty participants with no prior contact.

This result confirms the previous analytical research of Witte and Woodbury [1985] who found that receiving notices from the IRS was associated with an increased level of compliance (as was an increased probability of audit). Spicer and Hero [1985] found similar results in a lab experiment. These results, however, conflict with the survey research of Spicer and Lundstedt [1976], who found that prior contact from the IRS (in that study the contact was normally via an audit) led to increased tax resistance and decreased compliance.

Opportunity to Evade (OPPORT). This variable was first posited as positively related to noncompliance in survey research by Yankelovich, Skelly and White [1984]. As discussed in Chapter 4, this variable was created via a composite of occupation (self-employed, business, professional, or sales), an income level of $30,000 or greater, and access to cash income sources. This variable had not been tested empirically prior to this study.

The estimated regression coefficient of the variable is .84392, with a 95 percent confidence interval of .46721 to 1.22063. The confidence

interval is large due to the size of the standard error of the regression coefficient, indicating a great deal of variability in the sampling distribution of the regression coefficient.

The regression coefficient indicates that amnesty participants with the opportunity to evade taxes on average underreported 84.392 percent more income than amnesty participants without the opportunity characteristics, ceteris paribus. With 95 percent confidence, these results indicate that the population parameter shows that taxpayers with opportunity underreport income by at least 46.7 percent and possibly as much as 122.1 percent when compared to those amnesty participants without the opportunity characteristics.

This result is not surprising given the descriptive statistics related to this group of taxpayers. Although small in number, their mean amnesty tax payment was more than four times as large as the mean of the research data base. Recall that only 2.79 percent of amnesty participants had these characteristics (although they accounted for 10.08 percent of the amnesty tax paid within the research data base). This study indicates that the characteristics associated with opportunity are a strong indicator of potential noncompliance.

Occupations (OCT3, OCT6, OCT5). Three different occupation variables are part of the regression equation -- sales (OCT3), self-employed (OCT6), and unskilled labor (OCT5). Occupational information was also used in constructing a composite opportunity variable for this study, which was also found to be significant in the regression equation. The impact of each of these variables as part of the regression equation is briefly discussed below.

Sales. For taxpayers who listed sales as their occupation, the estimated regression coefficient in this study is .58912, indicating that when controlling for other independent variables, these taxpayers disclosed about 58.912 percent more unreported income than taxpayers who listed their occupation as one not included in the regression equation (the omitted occupation variables include professional, professional support, skilled labor, and retired/student). The 95 percent confidence interval for the coefficient in measuring the population parameter runs from .39328 to .78496. This indicates that (with 95 percent confidence) the population parameter would disclose that these taxpayers reported from 39.3 to 78.5 percent more unreported income than taxpayers who are part of the omitted occupational categories in this regression.

Self-Employed. The estimated regression coefficient for self-employed taxpayers is .53310, with a 95 percent confidence interval ranging from .28095 to .78525. These results can be interpreted as indicating that taxpayers who listed their occupation as self-employed disclosed 53.31 percent more unreported income than the omitted occupational categories, ceteris paribus. The 95 percent confidence interval indicates that the population parameter for taxpayers disclosing their occupation as self-employed likely falls in a range from 28.1 to 78.5 percent more unreported income than those taxpayers in the omitted occupational categories.

Unskilled Labor. For taxpayers who listed their occupation as one grouped in the unskilled labor category for this study, the estimated regression coefficient in this study is -.26126, indicating that when

controlling for other independent variables, these taxpayers disclosed about 26.126 percent less unreported income than the taxpayers who were grouped occupationally in the omitted categories. The 95 percent confidence interval for the coefficient in measuring the population parameter runs from -.43444 to -.08808. This indicates that (with 95 percent confidence) the population parameter would disclose that these taxpayers reported from 43.4 to 8.8 percent less unreported income than taxpayers who are part of the omitted occupational categories.

As previously mentioned, prior research can be considered generally indeterminate as to the impact of occupation on noncompliance. This study, however, concludes that certain occupations are more apt to be part of a noncompliance decision. Taxpayers in sales or self-employment activities were more likely to evade than the base group, while unskilled laborers were less likely to evade.

These findings generally support the survey research of Westat [1980b] (which found that employment in manufacturing or trade organizations was associated with higher compliance and the occupational categories of professional/managerial, clerical/sales, and service employees were associated with lower levels of compliance) and the analytical study of Witte and Woodbury [1985] (who found higher compliance in jobs where withholding of taxes occurred [manufacturing]). The professional occupational category was not significant in the regression equation. However, these taxpayers are included in the opportunity variable if the other requirements of this composite variable are met (AGI greater than $30,000, and access to cash income sources). The results seem to conflict with the survey results of Mason and Calvin

[1978] who found occupational prestige significantly related only to failure to file; in their study occupation was not associated to the underreporting of income or the overstatement of deductions.

Non-Filers in 1986 (NOFILE86). As mentioned in Chapter 5, this variable was included in the study as a surrogate for an attitudinal variable related to the noncompliance decision (i.e., do noncompliant taxpayers have an attitude regarding reporting that will continue even after an amnesty program?). The regression coefficient for this variable is .17434. We can conclude that these taxpayers disclosed 17.434 percent more unreported income than those amnesty participants who filed a tax return in 1986. The 95 percent confidence interval for this coefficient ranges from .05739 to .29130.

This group of taxpayers apparently decided to disclose themselves during amnesty, and then returned to their noncompliant behavior subsequent to amnesty. In addition, this study concludes that they had more unreported income than amnesty participants who filed a return in 1986. The real question is why they made this choice. It would appear that fear of sanctions was not a concern, while ethics, or the moral implications of tax evasion may help to explain this behavior.

Economic literature related to tax evasion stresses the fear of sanctions as a deterrent to tax evasion, and empirical evidence (survey, experimental, and analytic research) generally supports this contention (see, for example, Mason and Calvin [1978 and 1984], Friedland [1982], and Witte and Woodbury [1985]). Apparently, this group of taxpayers had no fear of sanctions as a result of their continued noncompliance. The Department of Treasury promised to ask no questions or put people on a

"hit list" if they filed during the amnesty program. Perhaps the 1986 nonfilers relied on this promise as a basis for not filing a return.

Several studies have focused on tax compliers, and determined that these individuals are more likely to view tax evasion as seriously immoral or wrong (see, for example, Tittle [1980], and Scott and Grasmick [1981]). In general, taxpayers who are noncompliant do not accept those beliefs. This conclusion is supported by the survey research of Song and Yarbrough [1978] who found that when tax evasion was compared to other crimes (both violent and property-related), evasion was not viewed as a serious crime. It may be that the amnesty participants in this group do not view evasion as a serious crime.

Tax ethics is a difficult concept to define. It is even more difficult to determine when a taxpayer meets the "moral failure" threshold as it relates to tax evasion. The results of this study would support the conclusions of previous research that indicates a need to explore specific ethical measures and their relationship to tax evasion. Descriptive statistics related to this group of amnesty participants are discussed in Chapter 4.

Paid Preparers Used to Prepare Returns (PDPREP). The regression coefficient for this variable is .16548, indicating that amnesty participants who used paid tax-return preparers disclosed about 16.5 percent more unreported income than amnesty participants who prepared their own return. The 95 percent confidence interval for this coefficient ranges from .05736 to .27360.

This study can make no conclusion regarding the implications of return preparers assisting in the noncompliance decision; the only conclusion that can be made is that these returns reported more income.

<u>Ann Arbor and Washtenaw County (SMSA2)</u>. Based on the regression coefficient, amnesty participants living in the city of Ann Arbor or Washtenaw county disclosed about 33.982 percent more unreported income than other amnesty participants. The 95 percent confidence interval for the population parameter ranges from about 7.8 percent to 60.2 percent.

Although unable to generalize these findings, this study does support the contention that geographic location is a part of the noncompliance decision. The area indicated (Ann Arbor) might initially seem to conflict with the previous finding of Witte and Woodbury [1985] that compliance is generally higher in established areas populated by middle class whites and lower in poverty and high unemployment areas. However, Witte and Woodbury also noted, "disturbingly," that better educated areas with large student populations generally have low levels of compliance. Ann Arbor would certainly fit this description.

Two other Standard Metropolitan Statistical Area (SMSA) variables (SMSA3 - Jackson, and SMSA9 - Benton Harbor) not significant at the .05 level, are significant at the .10 level, and one of these regions (Benton Harbor) does have an unemployment percentage that exceeds the statewide average. However, the current study did not specifically explore areas within the SMSA regions where poverty or high unemployment might exist. Therefore, no conclusions can be made since the SMSA variables in this study do not describe where the amnesty participants lived within the SMSA regions. Future research should attempt to focus on segmenting taxpayers among known poverty and high unemployment regions and comparing these taxpayers with those outside these regions.

<u>Tax Year 1983 (RATE635)</u>. Although the state income tax in Michigan is a flat tax on a tax base derived from federal AGI, during several

years in the early 1980's the flat rate varied from 4.6 percent (the "normal rate" during most years) to 5.1 percent in 1982, 6.35 percent in 1983, 5.85 percent in 1984, and 5.33 percent in 1985. The regression coefficient indicates that amnesty participants who filed a 1983 tax return revealed about 13.441 percent less unreported income than other amnesty participants, ceteris paribus. The 95 percent confidence interval indicates a population parameter in the range of -.24190 to- .02691.

At face value, this result might appear to indicate that higher tax rates are associated with higher compliance -- a view mildly supported by analytical modeling (see, for example, Allingham and Sandmo [1972], and Yitzhaki [1974]). In fact, although not in the regression equation, two other tax rate years (1985 [RATE533] and 1984 [RATE585]) would also have negative regression coefficients if included in the regression equation.

However, several alternative explanations exist. First, this finding could be a reflection of the fact that amnesty participants were disclosing more significant amounts of previously unreported income in years prior to 1983 (i.e., that the more significant noncompliant taxpayers filed for multiple years including one or more prior to 1983). Second, this finding could also be a reflection of the general economic conditions at the time. It could be that because the economy was good during the years in question, taxpayers were more apt to report and pay taxes on all their income (and, therefore, less income was disclosed during amnesty). Third, this finding could indicate that these taxpayers, although filing for amnesty, did not disclose all of their unreported income during these higher rate years.

<u>Self-Employed Taxpayers (SELFEMPL)</u>. This variable was created as an alternative to the occupational coding, by examining other information available in the data base (the lack of withheld taxes and a Form W-2 in the filings during amnesty). The regression indicates that these amnesty participants revealed about 29.934 percent more unreported income than participants who were not determined to be self-employed under the parameters indicated, ceteris paribus.

Although significant, and of further support to the contention that self-employed taxpayers have a greater propensity to evade taxes, this variable is not as significant as the occupational variable. However, remember that the occupational variable was significant based on a comparison to taxpayers in the professional support category. Here, the comparison group is taxpayers who are not self-employed. Another reason may be the restrictiveness with which the variable was created -- any amount of withheld taxes would have categorized a taxpayer as not self-employed.

<u>Gender</u>. The majority of studies (survey and experimental research) testing the compliance level of males versus females have found males less compliant. However, this variable had not previously been tested analytically. This analytical study supports the position that single males are less compliant than other taxpayers. The regression coefficient indicates that males disclosed about 19.00 percent more unreported income than other taxpayers, ceteris paribus.

This finding cannot be linked to income level because females and married taxpayers filing a joint return in the data base had a higher level of average income (AGI) then males (i.e., the finding cannot be refuted using the argument that the reason males have a higher level of

noncompliance is because they earn more). It could, however, be linked to self-employment (almost twice as many males in the research data base are likely self-employed).

The 95 percent confidence interval for the regression coefficient ranges from .05837 to .32166. As a result, the population parameter would indicate single males could disclose from 5.8 to 32.2 percent more unreported income than single females.

Exemptions (EXEMPT). This study used exemptions as a surrogate for family size. The regression coefficient for this variable is .04797, which signifies that amnesty participants with twice as many exemptions relative to other amnesty participants disclosed about 4.797 percent more unreported income, ceteris paribus. The 95 percent confidence interval for the population parameter runs from .004179 to .09193.

Other Variables. Several other items should be mentioned regarding the results of this regression analysis. First, some studies have indicated that filing status is a significant factor in the noncompliance decision. For example, Clotfelter [1983] who found married couples filing a joint return to be significantly less compliant than single individuals in non-business returns and no significant difference with business or farm returns. In this regression, no significant difference exists between single individuals and married couples filing a joint return (at the .05 level). However, there is a significant difference between the groups at the .10 level, with single taxpayers being less compliant than married couples filing a joint return.

Second, although several studies have indicated that taxpayers in professional occupations are less compliant than other taxpayers (see, for example Westat [1980b]), this study does not support that conclusion.

However, taxpayers listing their occupation as one of those grouped in the professional category in this study are included in the opportunity variable if the other requirements of this composite variable were met (AGI greater than $30,000, and access to cash income sources).

Finally, it was previously mentioned that five of the thirteen variables in the regression equation (AGILN, CONTACT, OPPORT, OCT3, and OCT6) accounted for about 94 percent of the variance accounted for in the dependent variable by all thirteen predictor variables. Although statistically significant, the meaningfulness of these variables as part of the noncompliance decision might be challenged.

6.3.4   Residual Analysis

Figures 6-1 through 6-3 are a part of the output from the regression related to an analysis of residuals (the difference between the observed dependent variable and the value predicted by the model). Reviewing the residual information provides information regarding whether some of the assumptions of regression analysis (e.g., linearity, homoscedasticity) are tenable. Probably the simplest and most useful is one in which standardized residuals are plotted against the standardized predicted dependent variables (Figure 6-1). If the points are randomly and evenly distributed in no apparent pattern, linearity and homoscedasticity are indicated. Figure 6-1 presents such a pattern.

In addition, residuals are assumed to be normally distributed. Figure 6-2 presents a histogram of standardized residuals superimposed over a normal curve, given the mean and variance of the residuals in the regression. Although not perfect, the residuals do appear to have a near normal distribution. As can be seen from the histogram, the model is overpredicting certain cases (i.e., there are outliers at the bottom of

the histogram). The data related to each outlier case were examined for potential data coding errors. No data errors were found as a result of this process. However, all outlier cases made very small tax payments (less than $10.00). The conclusion, therefore, is that the model does not fit well for amnesty participants making small tax payments (i.e., for these participants, the model predicts a level of unreported income in excess of actual unreported income).

Another way to compare the observed distribution of residuals to that expected under the assumption of normality is to plot the two cumulative distributions against each other for a series of points. If the two distributions are identical, a straight line results. By observing how points scatter about the expected straight line, it is possible to compare the two distributions. Figure 6-3 is a cumulative probability plot of the residuals. Again, a near normal distribution is indicated.

6.3.5   Summary

Although thirteen variables are included as significant factors in the regression analysis of the entire research data base, five of these variables account for the vast majority of the variance explained by the variables, and of these five, two variables (income level and contact with the Treasury Department) dominate. Because of the domination of the income level variable, and to further explore the data, the research data base was stratified into five AGI levels. An analysis of these data bases occurs later in this Chapter.

FIGURE 6-1

RESERACH DATA BASE: SCATTERPLOT OF STANDARDIZED RESIDUALS AGAINST STANDARDIZED PREDICTED SCORES

Across - *ZPRED   Down - *ZRESID
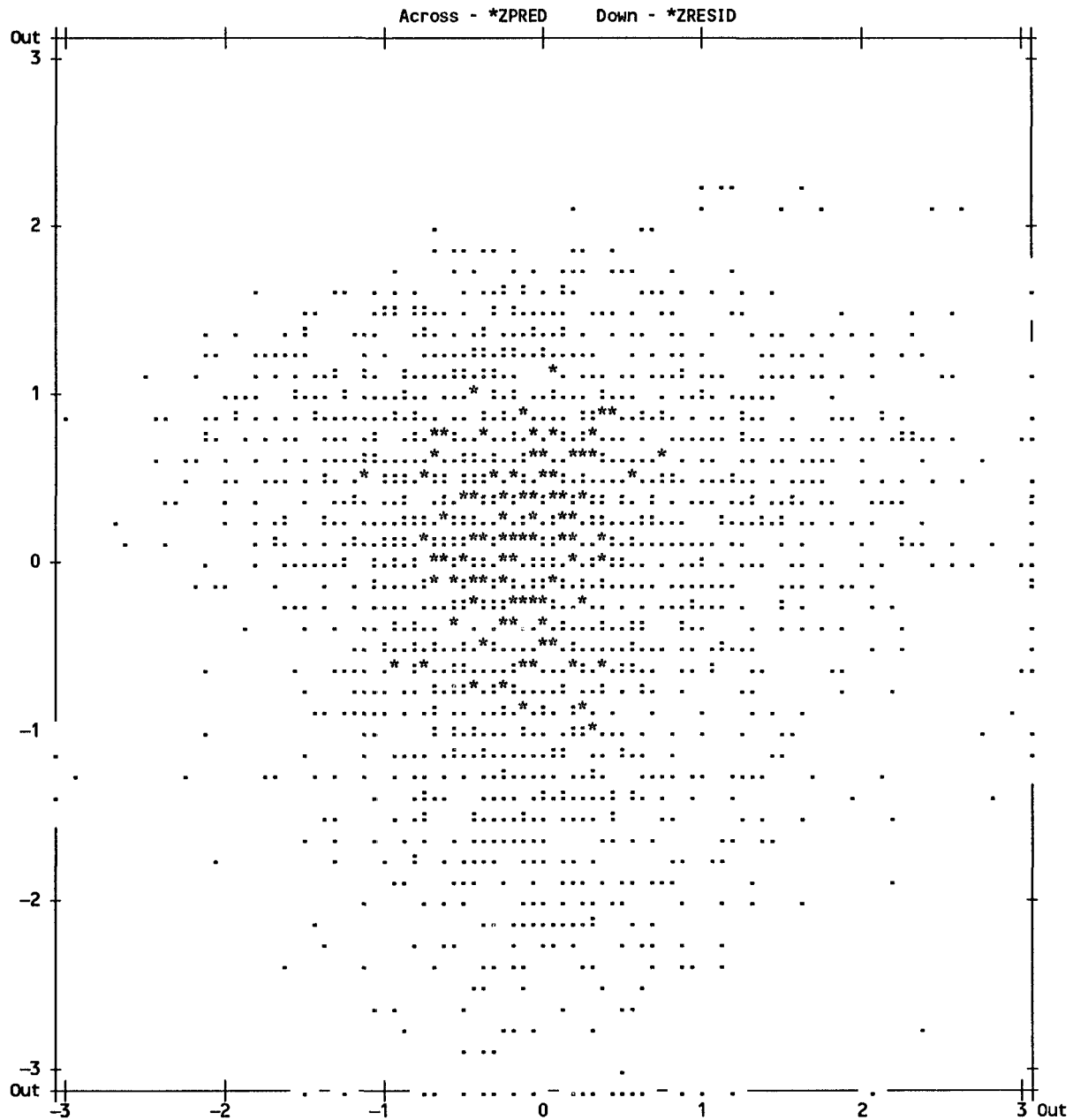
Symbols:

Max N

.   2.0
:   4.0
*   10.0

FIGURE 6-2

RESERACH DATA BASE: HISTOGRAM OF STANDARDIZED RESIDUALS

```
NExp N      (* = 2 Cases,    . : = Normal Curve)
0 2.71   Out .
0 1.38   3.00 .
0 1.98   2.88 .
0 2.82   2.75 .
0 3.94   2.63  .
0 5.43   2.50   .
0 7.36   2.38    .
5 9.83   2.25 *** .
6 12.9   2.13 ***  .
3 16.7   2.00 **    .
* 21.3   1.88 *****     .
* 26.7   1.75 *******    .
* 32.9   1.63 ***************.
* 40.0   1.50 ******************:::.****
* 47.9   1.38 *************************.***
* 56.4   1.25 ***************************.*** .***
* 65.4   1.13 ***********************************.*******
* 74.7   1.00 ****************************************.******
* 84.0    .88 ***********************************************.*****************
* 92.9    .75 ***********************************************:.****************
*  101    .63 ************************************************.**************
*  109    .50 ************************************************:.****************
*  115    .38 *************************************************:.**********
*  119    .25 **************************************************:.*******
*  122    .13 ***************************************************************.**************
*  123   0.0 ***********************************************************.*****
*  122   -.13 ************************************************************ .
*  119   -.25 ****************************************************     .
*  115   -.38 *******************************************       .
*  109   -.50 ***************************************        .
*  101   -.63 ***********************************   .
* 92.9   -.75 **********************************       .
* 84.0   -.88 **************************         .
* 74.7  -1.00 **************************       .
* 65.4  -1.13 ************************      .
* 56.4  -1.25 ********************     .
* 47.9  -1.38 ********************   .
* 40.0  -1.50 *****************.
* 32.9  -1.63 *************    .
* 26.7  -1.75 ************.
* 21.3  -1.88 **********:
* 16.7  -2.00 *******:*
* 12.9  -2.13 *****:****
* 9.83  -2.25 ****:**
* 7.36  -2.38 ***:***
6 5.43  -2.50 **:
6 3.94  -2.63 *:*
6 2.82  -2.75 :**
5 1.98  -2.88 :**
1 1.38  -3.00 :
* 2.71   Out :**********
```

FIGURE 6-3

RESERACH DATA BASE: NORMAL PROBABILITY PLOT OF STANDARDIZED RESIDUALS
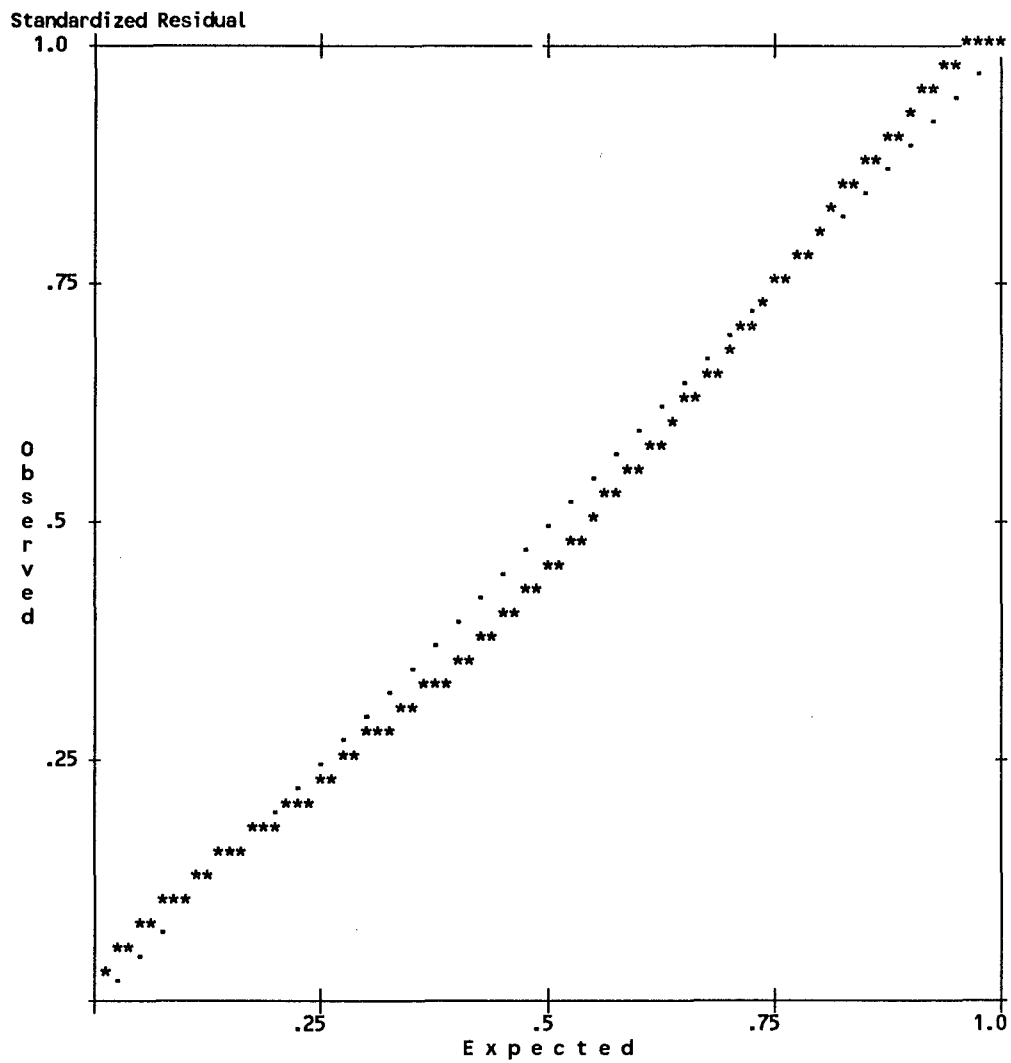
6.4   Regression Analyses of the Non-Contact Data Bases

6.4.1   In General

As was discussed in Chapter 5, two data bases were created to explore noncompliance decision factors for those amnesty participants who could be classified as not having had any contact with the Treasury Department (as defined in this study) prior to amnesty. The no contact taxpayers (roughly 630 lines of data out of 2470 in the entire research data base) paid in about 86 percent of their tax liability during amnesty. To discriminate between the contact and no-contact amnesty participants, approximately the same number of data lines were selected from taxpayers known to Treasury who made only small payments during amnesty (these taxpayers paid in approximately 23 percent of their tax liability during amnesty). These two sets of data were merged together into a data base (titled CONNCON.SYS) for analysis.

A second data base (titled CONNCON2.SYS) was also created by removing those taxpayers whose occupation was coded as OCT7 (retired, students, and other) from the initial data base. This section of Chapter 6 discusses the regression analyses of these data bases, and compares the results with that of the entire research data base.

6.4.2   Analysis of Contact/No Contact Data Base (CONNCON.SYS)

Table 6-4 presents the regression results for the contact/no contact data base (CONNCON). The analysis of the regression occurs along several lines, including a discussion of the goodness of fit (R^2), an analysis of the regression coefficients and their confidence intervals, and a comparison of the results with the entire research data base.

TABLE 6-4

REGRESSION TO PREDICT NONCOMPLIANCE USING CONNCON DATA BASE

Variable Name	Coefficient (Standard Error)	t (Significance)	R^2 Adjusted R^2
SELFEMPL	1.50225 (.14230)	10.557 (.0000)	.0979 .0971
OCT3	1.15694 (.16398)	7.055 (.0000)	.1361 .1347
OPPORT	1.84707 (.38191)	4.836 (.0000)	.1702 .1682
OCT6	.87073 (.18912)	4.604 (.0000)	.1842 .1816
NOFILE86	.38644 (.09270)	4.169 (.0000)	.1948 .1915
GENDER	.50863 (.09055)	5.617 (.0000)	.2029 .1990
AGILN	.29101 (.04835)	6.018 (.0000)	.2166 .2121
OCT7	.56012 (.12371)	4.528 (.0000)	.2357 .2307
SMSA10	-.58539 (.17085)	-3.426 (.0006)	.2406 .2351
OCT5	-.36186 (.14436)	-2.507 (.0123)	.2440 .2379
SMSA1	-.21078 (.08746)	-2.410 (.0161)	.2475 .2408
RATE635	-.18244 (.08762)	-2.082 (.0375)	.2502 .2429
(Constant)	3.77791 (.49575)	7.621 (.0000)	

6.4.2.1 Goodness of Fit

The model has a R^2 of .2502, and an adjusted R^2 of .2429 with 12 variables in the equation. As a result, the independent variables in the model account for about 25 percent of the variance in the dependent variable (unreported income). This result is similar to (although about 1.3 percent smaller than) the regression analysis of the entire research data base.

The order of the variables into the equation, and their impact on R^2 is as follows (all variables except AGILN are dummy variables). The self-employment variable created via an examination of the data other than disclosed occupation (SELFEMPL) enters the equation first with a R^2 of .0979. Taxpayers who disclosed an occupation of sales (OCT3) enters the equation next and increases R^2 by .0383 to .1361. Opportunity to evade (OPPORT) then increases R^2 by .0341 to .1682. Taxpayers who disclosed an occupation of self-employed (OCT6) then enters the equation and increases R^2 by .0140 to .1842. The dummy variable created to signify amnesty participants who failed to file a return in 1986 (NOFILE86) enters the equation next, increasing R^2 by .0105 to .1948. The variable constructed to indicate single males (GENDER) enters the regression equation next, increasing R^2 by .0081 to .2029. The log of AGI (AGILN) enters the equation next and adds .0137 to the R^2, increasing it to .2166. The next variable to enter is OCT7, which generally represents retired and student taxpayers. It increases R^2 by .0191 to .2357. The next variable to enter is SMSA10, which represents taxpayers in the Grand Rapids/Holland SMSA. It increases R^2 by .0050 to .2406. The next variable to enter the model is OCT5 (representing unskilled labor), contributing an additional .0034 to the R^2, increasing it to

.2440. The variable representing taxpayers in the Metropolitan Detroit SMSA (SMSA1), enters the equation next, and increases R^2 by .0035 to .2475. The last variable to enter the model is RATE635 (representing returns filed when the tax rate was 6.35 percent). It contributes an additional .0026 to the R^2, increasing it to .2502. There are no additional variables that would be added to the regression equation at a significance level of .10.

As can be seen from Table 6-4 and the foregoing discussion, several differences are immediately visible when these results are compared to those of the entire research data base. First, although the self-employment variable is strong, it does not dominate the analysis as the level of income variable dominated the analysis of the entire research data base. Second, the level of income variable is part of the regression equation, but it is the seventh variable to enter the equation.

Third, although several variables are strong (as would be expected in stepwise regression), eight of the twelve variables make substantial contributions to the explanation of the variance in the dependent variable; and, the last four variables to enter the regression equation (contributing .0050, .0034, .0035, and .0026 to R^2), together increase R^2 about as much as the last eight variables to enter the regression equation for the entire research data base (the contributions of these last eight variables ranges from .0014 to .0030). As a result, this analysis provides stronger evidence for several of the variables. Fourth, the standard errors of the regression coefficients are generally greater than those in the research data base. Although this is to be expected as a result of the data set (the independent variables have

larger variances associated with them), it will lead to decreased precision in estimating the population parameters since the 95 percent confidence intervals will be larger.

Finally, several differences exist among the variables in the regression equation. The Ann Arbor SMSA variable (SMSA2), the variable indicating the number of exemptions claimed on the return (EXEMPT), and the variable related to paid preparation of the return (PDPREP) are not a part of this regression equation. Three new variables are a part of this regression equation -- the occupational variable indicating (generally) retired or student (OCT7), and two SMSA variables (SMSA10 - Grand Rapids/Holland, and SMSA1 - Metropolitan Detroit).

6.4.2.2   Analysis of Regression Coefficients and Confidence Intervals

Table 6-5 presents the regression coefficients for each of the independent variables in the regression equation, along with their standard error and computed 95 percent confidence intervals.   As mentioned previously, because of the larger standard errors, the confidence intervals are larger and precision regarding estimation of the population parameters is weakened in certain cases.

Self-Employed Taxpayers (SELFEMPL). The regression indicates that these amnesty participants revealed about 150.225 percent more unreported income (vs. about 29.9 percent for the entire research data base) than participants who were not determined to be self-employed under the parameters indicated, ceteris paribus, and is the most significant variable in the regression equation. In this analysis, this variable is of greater significance than the self-employment occupational variable. This result further corroborates the fact that self-employed taxpayers,

TABLE 6-5

CONFIDENCE INTERVALS OF REGRESSION COEFFICIENTS FOR CONNCON DATA BASE

Variable Name	Coefficient	Standard Error	95 Percent Confidence Interval	
SELFEMPL	1.50225	.14230	1.22308	1.78142
OCT3	1.15694	.16398	.83523	1.47866
OPPORT	1.84707	.38191	1.09779	2.59635
OCT6	.87073	.18912	.49969	1.24177
NOFILE86	.38644	.09270	.20457	.56830
GENDER	.50863	.09055	.33097	.68629
AGILN	.29101	.04835	.19615	.38587
OCT7	.56012	.12371	.31742	.80282
SMSA10	-.58539	.17085	-.92058	-.25019
OCT5	-.36186	.14436	-.64508	-.07864
SMSA1	-.21078	.08746	-.38236	-.03920
RATE635	-.18244	.08762	-.35434	-.01054
(Constant)	3.77791	.49575	2.80531	4.75052

because of their access to cash income sources and control over net income reported, are more likely to evade taxes.

The standard error of this regression coefficient (.14230) is comparable to its parallel variable in the regression of the entire research data base (.12137). As a result, precision regarding the population parameter is about the same as it was in the regression of the entire research data base. Here, the 95 percent confidence interval indicates that the population parameter would fall in the range of 122.3 percent to 178.1 percent more unreported income than taxpayers who are self-employed.

Opportunity to Evade (OPPORT). Not surprisingly, opportunity to evade taxes is a significant variable in this analysis. The estimated regression coefficient of the variable is 1.84707, with a 95 percent confidence interval of 1.09779 to 2.59635. The standard error of the coefficient (and, therefore, the 95 percent confidence interval) is about twice as large as the standard error of this variable in the analysis of the entire research data base. It would appear that some taxpayers with opportunity paid small amounts of amnesty tax. However, although the precision is not good, the significance of the variable is impressive.

The regression coefficient indicates that the amnesty participants in this data base with the opportunity to evade taxes on average underreported 184.707 percent more income than amnesty participants without the opportunity characteristics, ceteris paribus. The 95 percent confidence interval indicates that the population parameter could be as low as 109.8 percent or as high as 259.6 percent (i.e., those with opportunity revealed at least twice as much previously unreported income as those without opportunity).

Occupations (OCT3, OCT6, OCT7, OCT5). Four different occupation variables are part of this regression equation. Three -- sales (OCT3), self-employed (OCT6), and unskilled labor (OCT5) are the same as in the regression of the entire research data base. The new variable (OCT7) relates generally to retirees and students. All are but one (OCT5) are positively related to the dependent variable. The impact of each of these variables as part of the regression equation is briefly discussed below.

Sales. For taxpayers who listed sales as their occupation, the estimated regression coefficient in this study is 1.15694, indicating that when controlling for other independent variables, these taxpayers disclosed about 115.694 percent more unreported income than taxpayers in the occupations omitted from the regression equation. This compares to 58.912 percent in the regression of the entire research data base. The 95 percent confidence interval for the coefficient in measuring the population parameter runs from .853523 to 1.47866. The standard error of the regression coefficient is close to twice as large as that of the entire research data base. Again, the precision of the parameter estimation is only fair.

Self-Employed. The estimated regression coefficient for self-employed taxpayers in this regression is .87073, with a 95 percent confidence interval ranging from .49969 to 1.24177. Taxpayers who listed their occupation as self-employed disclosed about 87.07 percent more unreported income than taxpayers in the occupations omitted from the regression equation, ceteris paribus (vs. 53.3 percent in the entire research data

base regression, indicating a higher likelihood of these taxpayers in the no contact group). The standard error of the regression coefficient is about 50 percent larger than that of the coefficient in the previous regression, again negatively impacting precision.

Unskilled Labor. These taxpayers again are found to be more compliant. The estimated regression coefficient here is -.36186, indicating that when controlling for other independent variables, these taxpayers disclosed about 36.186 percent less unreported income than taxpayers in the occupations omitted from the regression equation. The coefficient in the study of the research data base was -.26126. This difference indicates that blue collar workers disclosed less unreported income, and are less likely to be among the no contact group. The 95 percent confidence interval for the coefficient in measuring the population parameter runs from -.64508 to -.07864. This indicates that (with 95 percent confidence) the population parameter would disclose that these taxpayers reported from 64.5 to 7.9 percent less unreported income than taxpayers in the occupations omitted from the regression equation.

Retired/Student. Although not significant in the regression analysis of the entire research data base, this occupational category is significant in this comparison of taxpayers with and without contact. The regression coefficient is .56012, which indicates that these taxpayers disclosed about 56.012 percent more unreported income than taxpayers in the occupations omitted from the regression equation. The 95 percent confidence interval for the population parameter runs from .31742 to .81282.

When the inclusion of this variable in the regression equation is coupled with the reduced effect of the level of income variable (the regression coefficient decreases by about 50 percent), there appears to be some support to Witte and Woodbury's contention that there is noncompliance among both high and low income groups.

Again, it is important to stress that this finding does not imply that low income taxpayers are more likely to be advertent tax evaders than middle income taxpayers. Some, in fact, may be willful tax evaders. In addition, there may be a difference between students and retirees. It would seem more plausible that many of these taxpayers may not be filing because of lack of knowledge, confusion over the tax laws, or a real belief that they owe no taxes.

Non-Filers in 1986 (NOFILE86). This category again is a significant variable in the noncompliance decision as it relates to taxpayers without prior contact. Here, the regression coefficient is .38644 (more than twice the size of the coefficient in the entire research data base [.17434]). We can conclude that these taxpayers disclosed 38.644 percent more unreported income than those amnesty participants who filed a tax return in 1986, and that taxpayers who did not file a return in 1986 were more likely to be part of the no contact group. The 95 percent confidence interval for this coefficient ranges from .20457 to .56830 (vs. .05739 to .29130 in the previous regression).

Obviously, the people who failed to file may have done so for a variety of reasons. This finding also provides support to the contention that advertent noncompliant taxpayers (who likely make up a portion of

this group) have different ethics than those of compliant taxpayers. Further research is needed to determine reasons for this behavior.

Gender. Gender was a more significant variable in this analysis than in the previous regression. Here, the regression coefficient was .50863 (as compared to .19001 in the analysis of the entire research data base), strengthening the contention that single males are more likely to evade than other taxpayers. In addition, males appear to be a more significant segment of taxpayers without contact. The regression coefficient indicates that single males disclosed about 50.863 percent more unreported income than other taxpayers, ceteris paribus.

The 95 percent confidence interval for the regression coefficient ranges from .33097 to .68629 (vs. .05837 to .32166 in the previous regression). As a result, the population parameter would indicate single males could disclose from 33.1 to 68.6 percent more unreported income than other taxpayers.

Log of AGI (AGILN). The estimated regression coefficient of adjusted gross income is .29101. Thus, amnesty participants in this data base with twice as much adjusted gross income relative to other amnesty participants had (after adjustment) about 22.4 percent more unreported income in AGI, ceteris paribus.

As mentioned previously, this regression coefficient is about 50 percent less than in the analysis of the entire research data base (.58888). So, although there is still a relationship between level of income and level of noncompliance, it is not as significant here as in the entire research data base. Part of the reduced significance could be due to the fact that the retired/student occupational group (and their lower levels of income) are a larger part of the no contact group. This

would mitigate the effect of this variable. The inclusion of contact taxpayers with low levels of amnesty payments in the data base (as surrogates for compliant taxpayers) also obviously mitigated the impact of this variable.

The 95 percent confidence interval for this coefficient ranges from .19615 to .38587, indicating that the population parameter would fall in this range 95 percent of the time. The range indicates that an amnesty participants in this data base with twice as much in adjusted gross income as another individual participant could have (after adjustment) from 14.6 to 30.7 percent more unreported income, ceteris paribus.

Geographic Regions (SMSA10 and SMSA1). Two Standard Metropolitan Statistical Area (SMSA) variables are a part of this regression equation, and both are negatively related to noncompliance.

Grand Rapids/Holland (SMSA10). SMSA10 includes the counties of Kent and Ottawa, and the cities of Grand Rapids and Holland. Based on the regression coefficient, amnesty participants in this data base who live in Kent or Ottawa county disclosed about 58.539 percent less unreported income than taxpayers living in areas omitted from the regression equation. The 95 percent confidence interval for the population parameter ranges from about 92.1 percent to 25.0 percent less unreported income. It is also possible to conclude that taxpayers living in this area are less likely to be part of the no contact group.

Metropolitan Detroit (SMSA1). SMSA1 includes a large part of southeastern Michigan, including all of metropolitan Detroit. The regression coefficient indicates that for this data base, taxpayers

living in this area disclosed 21.078 percent less unreported income than taxpayers living in areas omitted from the regression equation. At face value, it might appear that this information might refute the finding of Witte and Woodbury regarding low compliance in unemployment and poverty areas -- since this region includes many areas of unemployment and poverty. Although interesting, however, the Witte and Woodbury finding cannot be refuted because the SMSA variables do not describe where taxpayers live within these areas. However, it does appear that this region has fewer members of the no contact group.

Tax Year 1983 (RATE635). The regression equation includes this variable (as in the regression equation for the entire research data base) with a regression coefficient of -18.244, indicating that amnesty participants part of this data base who filed a 1983 tax return revealed about 18.244 percent less unreported income than amnesty participant who filed a return during a year when the tax rate was 4.6 percent (the base dummy variable in this study), ceteris paribus. The 95 percent confidence interval indicates a population parameter in the range of -.24190 to -.02691.

Other Variables. A few other comments are warranted regarding this analysis. Filing status was not a significant variable in this analysis at either the .05 level or at the .10 level. This would indicate that there is no statistical difference between single and married taxpayers in the no contact group. Second, professional occupations were found again to be no more likely to evade than other occupational groups. A caveat is in order for the opportunity classification, as was mentioned in the discussion of the entire research data base.

6.4.2.3   Residual Analysis

Figures 6-4 through 6-6 present several figures used as part of the analysis of residuals.   Figure 6-4 plots standardized residuals against the standardized predicted dependent variables.   As the points are randomly and evenly distributed in no apparent pattern, linearity and homoscedasticity are indicated.

Figure 6-5 presents a histogram of standardized residuals superimposed over a normal curve, given the mean and variance of the residuals in the regression. Figure 6-6 is a cumulative probability plot of the residuals. Although not perfect, the residuals do appear to have a near normal distribution.

6.4.2.4   Summary

This regression provides stronger support for the inclusion of several variables in the noncompliance decision paradigm.   Although statistically significant, and therefore, a part of the regression equation for the entire research data base, gender, self-employment, and continued nonfilers contributed only mildly to the explanation of the variance in the dependent variable.   In this analysis of taxpayers with no contact, however, they make significant contributions to the model. In addition, the significant (and powerful) variables in the initial regression reappear in this model (sales, self-employed, and unskilled labor occupations; opportunity; level of income), but without their dominance.   Finally, the inclusion of the retired/student occupational group along with the mitigation of the level of income variable provides some mild support for the contention that low income taxpayers are part of the noncompliance puzzle.

FIGURE 6-4

CONNCON DATA BASE: SCATTERPLOT OF STANDARDIZED RESIDUALS AGAINST STANDARDIZED PREDICTED SCORES

Symbols:

Max N
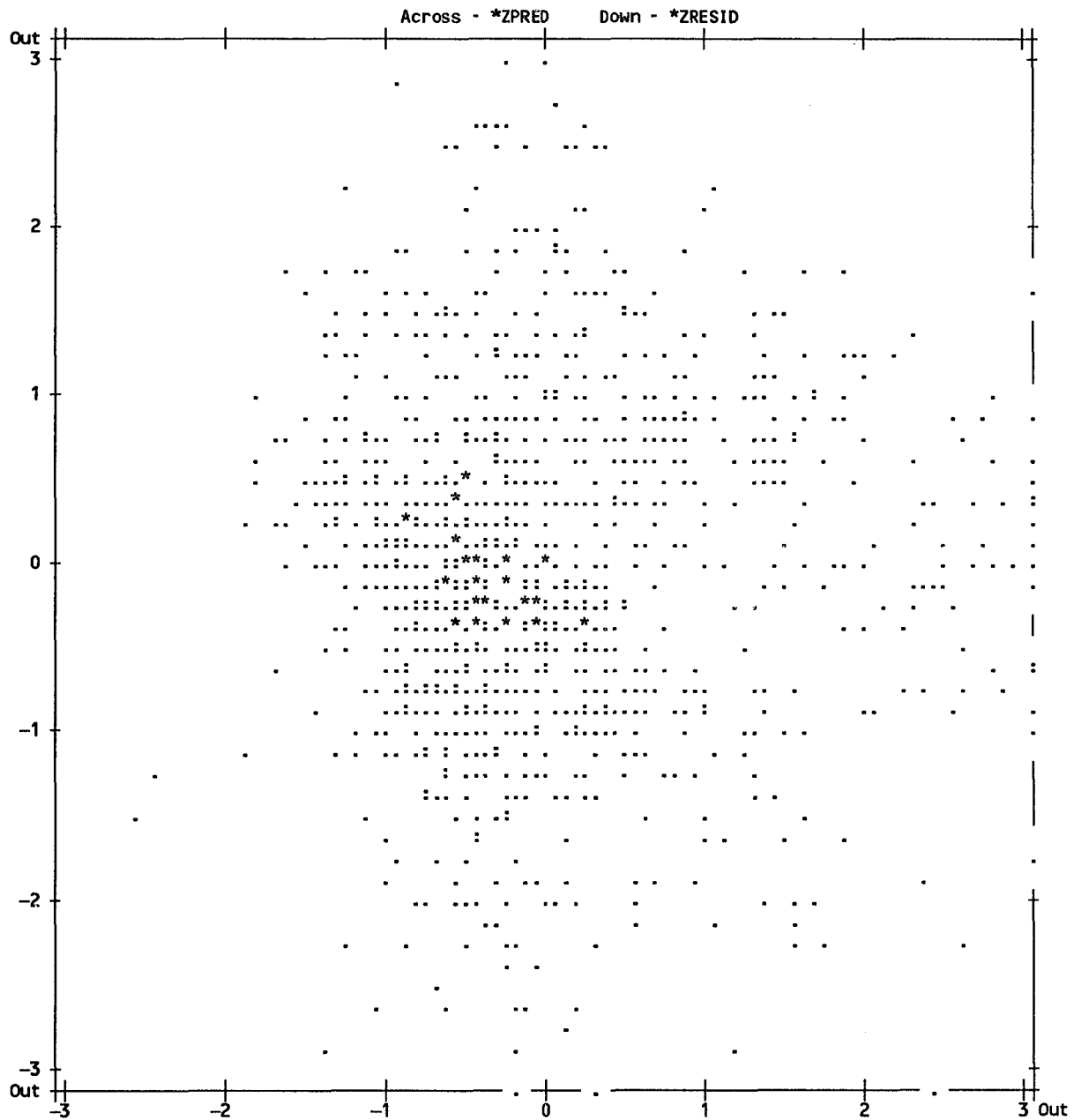
.	2.0
:	4.0
*	9.0

FIGURE 6-5

CONNCON DATA BASE: HISTOGRAM OF STANDARDIZED RESIDUALS

```
NExp N      (* = 1 Cases,    . : = Normal Curve)
0 1.36   Out .
2  .69  3.00 :*
1 1.00  2.88 :
1 1.42  2.75 :
5 1.98  2.63 *:***
* 2.73  2.50 **:*******
0 3.70  2.38    .
3 4.93  2.25 *** .
5 6.48  2.13 *****.
5 8.38  2.00 *****  .
* 10.7  1.88 **********:*
* 13.4  1.75 ************:
* 16.5  1.63 ****************:*
* 20.1  1.50 ********************:*
* 24.0  1.38 ************************:**
* 28.3  1.25 ***************************  .
* 32.8  1.13 **********************         .
* 37.5  1.00 ***********************************       .
* 42.2   .88 *************************************.       .
* 46.7   .75 ****************************************************:***
* 50.8   .63 ******************************************                .
* 54.5   .50 ****************************************************************:.*
* 57.6   .38 **************************************************************:
* 59.9   .25 ***************************************************************:.
* 61.3   .13 *********************************************************     .
* 61.8  0.0  **************************************************************.*****************
* 61.3  -.13 **********************************************************:***********
* 59.9  -.25 ******************************************************:********************
* 57.6  -.38 ***************************************************:*********
* 54.5  -.50 ********************************************       .
* 50.8  -.63 ****************************************      .
* 46.7  -.75 **************************************:*******
* 42.2  -.88 ***********************************:**********
* 37.5 -1.00 ***********************************:**
* 32.8 -1.13 ********************************.
* 28.3 -1.25 ******************       .
* 24.0 -1.38 ****************       .
* 20.1 -1.50 ************       .
9 16.5 -1.63 *********      .
6 13.4 -1.75 ******       .
* 10.7 -1.88 **********.
* 8.38 -2.00 *******:******
5 6.48 -2.13 *****.
9 4.93 -2.25 ****:****
2 3.70 -2.38 ** .
1 2.73 -2.50 * .
5 1.98 -2.63 *:***
1 1.42 -2.75 :
4 1.00 -2.88 :***
0  .69 -3.00 .
3 1.36   Out :**
```

FIGURE 6-6

CONNCON DATA BASE: NORMAL PROBABILITY PLOT OF STANDARDIZED RESIDUALS
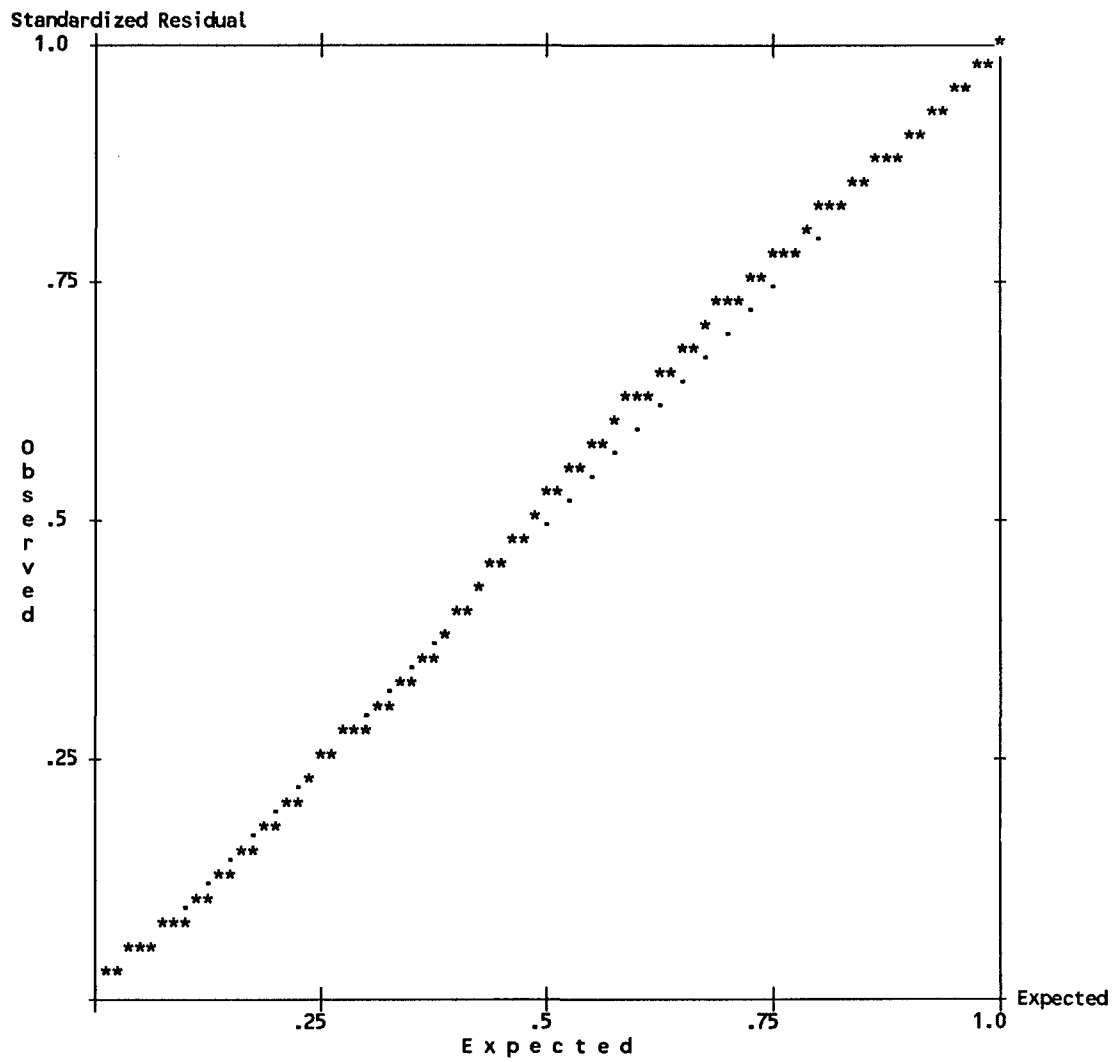
6.4.3   Analysis of Contact/No Contact Data Base Excluding

the Retired/Student Occupational Group (CONNCON2.SYS)

Table 6-6 presents the regression results for the contact/no contact data base excluding the retired/student occupational group (CONNCON2). The analysis of the regression will be limited to a review of the goodness of fit (R^2), and a comparison of the regression coefficients to the Contact/No Contact data base including the retired/student occupational group.

6.4.3.1   Goodness of Fit

The model has a R^2 of .2795, and an adjusted R^2 of .2713 with 11 variables in the equation. Therefore, the independent variables in the model account for almost 28 percent of the variance in the dependent variable (unreported income). This result is about 3 percent greater than the analysis of the CONNCON data base, and about 2 percent greater than the analysis of the entire research data base. Two predictors in the CONNCON regression equation are not a part of this equation -- the retired/student occupational group (obviously) and the variable representing tax year 1983 (RATE635) -- and a new predictor variable appears -- number of exemptions claimed on the return (EXEMPT).

Not surprisingly, this regression is similar to that of the CONNCON data base. Of the variables in the equation, the first four variables are identical to the CONNCON regression and in the same order (SELFEMPL, OCT3, OPPORT, and OCT6); the next five variables are the same as in the CONNCON regression (excluding OCT7) but in a slightly different order (AGILN, GENDER, NOFILE86, SMSA10, and OCT5).

The impact on R^2 and their order in the equation, is as follows (all variables except AGILN and EXEMPT are dummy variables). The self-

TABLE 6-6

REGRESSION TO PREDICT NONCOMPLIANCE USING CONNCON2 DATA BASE

Variable Name	Coefficient (Standard Error)	t (Significance)	R^2 Adjusted R^2
SELFEMPL	1.48814 (.14742)	10.095 (.0000)	.1078 .1069
OCT3	1.10215 (.17310)	6.367 (.0000)	.1532 .1515
OPPORT	1.80217 (.40125)	4.491 (.0000)	.1923 .1898
OCT6	.87154 (.19862)	4.388 (.0000)	.2109 .2076
AGILN	.28616 (.05789)	4.944 (.0000)	.2269 .2230
GENDER	.73394 (.12163)	6.034 (.0000)	.2457 .2410
NOFILE86	.48096 (.10780)	4.462 (.0000)	.2622 .2569
SMSA10	-.66824 (.20224)	-3.304 (.0010)	.2683 .2622
OCT5	-.38250 (.15195)	-2.517 (.0120)	.2719 .2651
EXEMPT	.09232 (.04192)	2.202 (.0279)	.2760 .2685
SMSA1	-.22488 (.10322)	-2.179 (.0296)	.2795 .2713
(Constant)	3.48266 (.56582)	6.155 (.0000)	

employment variable created via an examination of the data other than disclosed occupation (SELFEMPL) enters the equation first with a R^2 of .1078 (vs. .0979 in the CONNCON regression). The occupation of sales (OCT3) enters the equation next and increases R^2 by .0454 (vs. .0383 in the CONNCON regression). Opportunity to evade (OPPORT) then increases R^2 by .0391 (vs. .0341 in the CONNCON regression). An occupation of self-employed (OCT6) then enters the equation and increases R^2 by .0186 (vs. .0140 in the CONNCON regression).

The log of AGI (AGILN) enters the equation next and adds .0161 to the R^2, (vs. .0137 in the CONNCON regression). The variable constructed to indicate single males (GENDER) enters the regression equation next, increasing R^2 by .0188 (vs. .0081 in the CONNCON regression). The dummy variable created to signify amnesty participants who failed to file a return in 1986 (NOFILE86) enters the equation next, increasing R^2 by .0165 (vs. .0105 in the CONNCON regression). The next variable to enter is SMSA10, which represents taxpayers in the Grand Rapids/Holland SMSA. It increases R^2 by .0060 (vs. .0050 in the CONNCON regression). The next variable to enter the model is OCT5 (representing unskilled labor), contributing an additional .0036 to the R^2, (vs. .0034 in the CONNCON regression). The number of exemptions (EXEMPT) claimed on the return (a surrogate for family size) next enters the model, and increases R^2 by .0041. The variable representing taxpayers in the Metropolitan Detroit SMSA (SMSA1), enters the equation last, and increases R^2 by .0035 (the same as in the CONNCON regression).

Dropping the retired/student occupational category strengthens the effect of several variables (GENDER and NOFILE86 most notably), while decreasing the effect of none (SMSA10, OCT5, and SMSA1 increase R^2 by

almost the same amounts as in the CONNCON regression). There are no additional variables that would be added to the regression equation at a significance level of .10.

6.4.3.2   Analysis of Regression Coefficients and Confidence

Intervals

Table 6-7 presents the regression coefficients for each of the independent variables in the regression equation, along with their standard error and computed 95 percent confidence intervals. Although most regression coefficients are similar to their counterparts in the CONNCON analysis (i.e., the removal of the retired/student occupational group had no large impact on certain variables), several change significantly (GENDER, NOFILE86, and SMSA10), and are discussed briefly below.

The regression coefficients have standard errors similar to those of the analysis of the CONNCON data base, as expected. The result, again, is that the confidence intervals are larger and precision regarding estimation of the population parameters is weakened as compared to the research data base.

Gender. Gender, once again, has a larger regression coefficient in this analysis than in the previous regression. Here, the regression coefficient is .73394 (as compared to .50863 in the analysis of CONNCON and .19001 in the analysis of the entire research data base). This finding suggests that among unknown taxpayers (exclusive of retirees and students, who in this study had comparatively lower income levels), males are much more noncompliant than other taxpayers. The regression coefficient indicates that single males disclosed about 73.394 percent more unreported income than other taxpayers, ceteris paribus. When the

TABLE 6-7

CONFIDENCE INTERVALS OF REGRESSION COEFFICIENTS FOR CONNCON2 DATA BASE

Variable Name	Coefficient	Standard Error	95 Percent Confidence Interval	
SELFEMPL	1.48814	.14742	1.19884	1.77744
OCT3	1.10215	.17310	.76245	1.44184
OPPORT	1.80217	.40125	1.01475	2.58959
OCT6	.87154	.19862	.48176	1.26132
AGILN	.28616	.05789	.17257	.39976
GENDER	.73394	.12163	.49525	.97264
NOFILE86	.48096	.10780	.26942	.69251
SMSA10	-.66824	.20224	-1.06512	-.27137
OCT5	-.38250	.15195	-.68069	-.08431
EXEMPT	.09232	.04192	.01006	.17458
SMSA1	-.22488	.10322	-.42745	-.02231
(Constant)	3.48266	.56582	2.37228	4.59303

retired/student occupational group is removed from the analysis, the proportion of unreported income among single males increases by about 44 percent.

This result was expected based on the descriptive statistics of gender and income levels in the retired/student occupational group. Within this group, there is a higher proportion of females, and generally lower levels of income, than in the entire research data base.

The 95 percent confidence interval for the regression coefficient ranges from .49525 to .97264 (vs. .33097 to .68629 in the CONNCON regression). As a result, the population parameter would indicate single males could disclose from 49.5 to 97.3 percent more unreported income than other taxpayers.

Non-Filers in 1986 (NOFILE86). The regression coefficient for this category of amnesty participants is .48096 (vs. .38644 in the CONNCON analysis and .17434 in the entire research data base). When the retired/student occupational group is removed from the data base, nonfilers in 1986 disclose about 24 percent more unreported income than when the retired/student occupational group is in the analysis.

There are several explanations to this increase. First, based on the descriptive analysis of the retired/student taxpayer group, a smaller proportion failed to file a return in 1986 when compared to the entire research data base. For some reason, the taxpayers in this group were more likely to file after amnesty -- maybe they were fearful of sanctions subsequent to amnesty; maybe they didn't realize that they needed to file prior to amnesty and once they understood, they complied; maybe they had been noncompliant prior to amnesty, were fighting a guilty conscience, and when amnesty came along, they took the opportunity to make amends,

and return to their better ethics towards compliance after the amnesty program.

Second, this result could be expected because of the generally lower income levels among the retired/student group. In other words, those amnesty taxpayers in the retired/student occupational group who did not file in 1986, disclosed lower levels of income during amnesty than other nonfilers in 1986. Finally, it appears that taxpayers in the retired/student group who filed during amnesty were more likely to continue filing post-amnesty than other taxpayers in the no contact group.

The 95 percent confidence interval for this coefficient ranges from .26942 to .69251 (vs. .20457 to .56830 in the CONNCON regression and .05739 to .29130 in the entire research data base regression).

Grand Rapids/Holland SMSA (SMSA10). As mentioned above, SMSA10 includes the counties of Kent and Ottawa, and the cities of Grand Rapids and Holland. The regression coefficient for this category of amnesty participants is -.66824 (vs. -.58539 in the CONNCON analysis), indicating that amnesty participants part of this data base living in Kent or Ottawa county disclosed about 66.824 percent less unreported income than taxpayers living in areas omitted from the regression equation.

When the retired/student occupational group is removed from the data base, remaining taxpayers in the Grand Rapids/Holland SMSA disclose even less unreported income (about 14 percent less) than when the retired/student occupational group is in the analysis. It would appear that taxpayers in this SMSA are less likely to be in the no contact group, and more likely to report smaller amounts of unreported income.

<u>Exemptions (EXEMPT)</u>. Although not a part of the CONNCON regression equation, this variable appears as part of the regression equation when the retired/student occupational group is removed. The regression coefficient for this variable is .09232 (vs. .04797 for the regression on the entire research data base), signifying that amnesty participants in the CONNCON2 data base with twice as many exemptions relative to other amnesty participants disclosed about 9.232 percent more unreported income, ceteris paribus.

Since the retired/student occupational group claimed fewer exemptions (on average) than all taxpayers without contact, it may be that these taxpayers were mitigating the effect of family size in the CONNCON analysis. Once they are removed, a significant effect is indicated -- with a regression coefficient almost twice as large as that of the entire research data base. Here, the 95 percent confidence interval for the population parameter runs from .01006 to .17458 (vs. .004179 to .09193 for the entire research data base).

6.4.3.3 Residual Analysis

Figures 6-7 through 6-9 present several figures used as part of the analysis of residuals. Figure 6-7 plots standardized residuals against the standardized predicted dependent variables. As the points are randomly and evenly distributed in no apparent pattern, linearity and homoscedasticity are indicated.

Figure 6-8 presents a histogram of standardized residuals superimposed over a normal curve, given the mean and variance of the residuals in the regression. Figure 6-9 is a cumulative probability plot of the residuals.

These figures indicate a near normal distribution of residuals; and more normal than the CONNCON analysis.

6.4.3.4 Summary

The analysis of this data base further confirmed the existence of certain variables in the noncompliance decision-making process for taxpayers with no contact from the Department of Treasury (positively: self-employed taxpayers, taxpayers indicating sales as an occupation, opportunity to evade, 1986 nonfilers, gender, and level of income; negatively: unskilled labor, and taxpayers living in the Grand Rapids/Holland and metropolitan Detroit SMSA's). It also increased the magnitude of several regression coefficients (gender, 1986 nonfilers, and taxpayers living in the Grand Rapids/Holland SMSA).

FIGURE 6-7

CONNCON2 DATA BASE: SCATTERPLOT OF STANDARDIZED RESIDUALS AGAINST STANDARDIZED PREDICTED SCORES

Across - *ZPRED   Down - *ZRESID
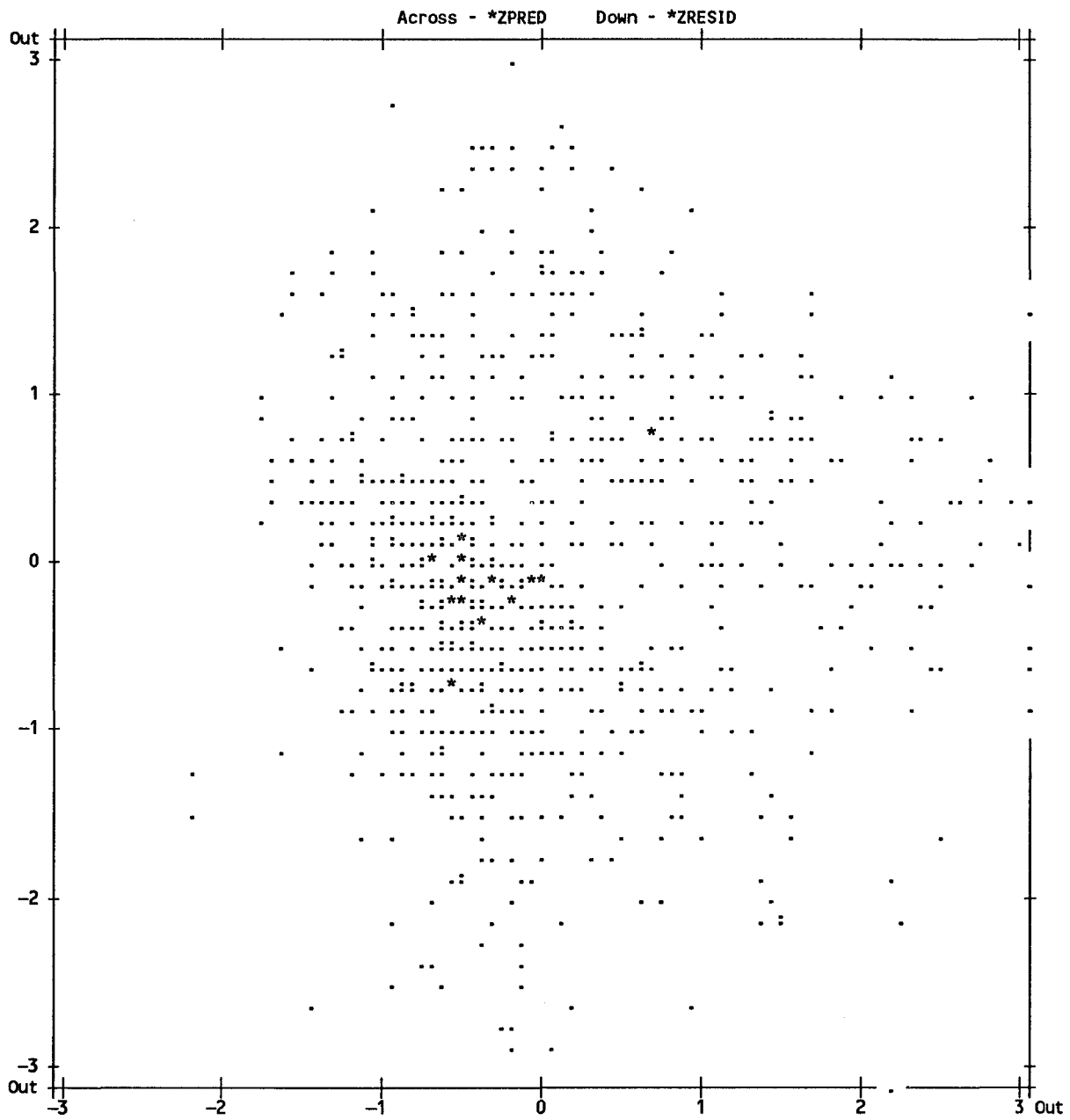
Symbols:

Max N

.	2.0
:	4.0
*	8.0

FIGURE 6-8

CONNCON2 DATA BASE: HISTOGRAM OF STANDARDIZED RESIDUALS

```
NExp N       (* = 1 Cases,     . : = Normal Curve)
0 1.07   Out .
1  .55   3.00 :
0  .79   2.88 .
1 1.12   2.75 :
1 1.56   2.63 *.
6 2.15   2.50 *:****
6 2.92   2.38 **:***
5 3.89   2.25 ***:*
3 5.12   2.13 *** .
3 6.62   2.00 ***   .
* 8.43   1.88 *******:***
* 10.6   1.75 **********:*
* 13.1   1.63 ************:***
* 15.9   1.50 **************.
* 19.0   1.38 ******************:**
* 22.4   1.25 *********************:*
* 25.9   1.13 *****************   .
* 29.6   1.00 **************************   .
* 33.3    .88 ******************      .
* 36.8    .75 ******************************************:***********
* 40.1    .63 *******************************       .
* 43.1    .50 ********************************************:.
* 45.5    .38 ***************************************** .
* 47.3    .25 ****************************************************** .
* 48.4    .13 ************************************************** .
* 48.8   0.0 ****************************************************:*******
* 48.4   -.13 ***********************************************:***************************
* 47.3   -.25 *********************************************:********
* 45.5   -.38 *****************************************.
* 43.1   -.50 ****************************************:*
* 40.1   -.63 **********************************************:******
* 36.8   -.75 *************************************:****
* 33.3   -.88 ********************************:**
* 29.6  -1.00 **************************         .
* 25.9  -1.13 ********************       .
* 22.4  -1.25 ******************     .
* 19.0  -1.38 *************     .
* 15.9  -1.50 *************   .
* 13.1  -1.63 **********   .
6 10.6  -1.75 ******     .
8 8.43  -1.88 *******:
5 6.62  -2.00 ***** .
* 5.12  -2.13 ****:*****
2 3.89  -2.25 ** .
3 2.92  -2.38 **:
3 2.15  -2.50 *:*
3 1.56  -2.63 *:*
2 1.12  -2.75 :*
2  .79  -2.88 :*
0  .55  -3.00 .
1 1.07   Out :
```

FIGURE 6-9

COMMCON2 DATA BASE: NORMAL PROBABILITY PLOT OF STANDARDIZED RESIDUALS
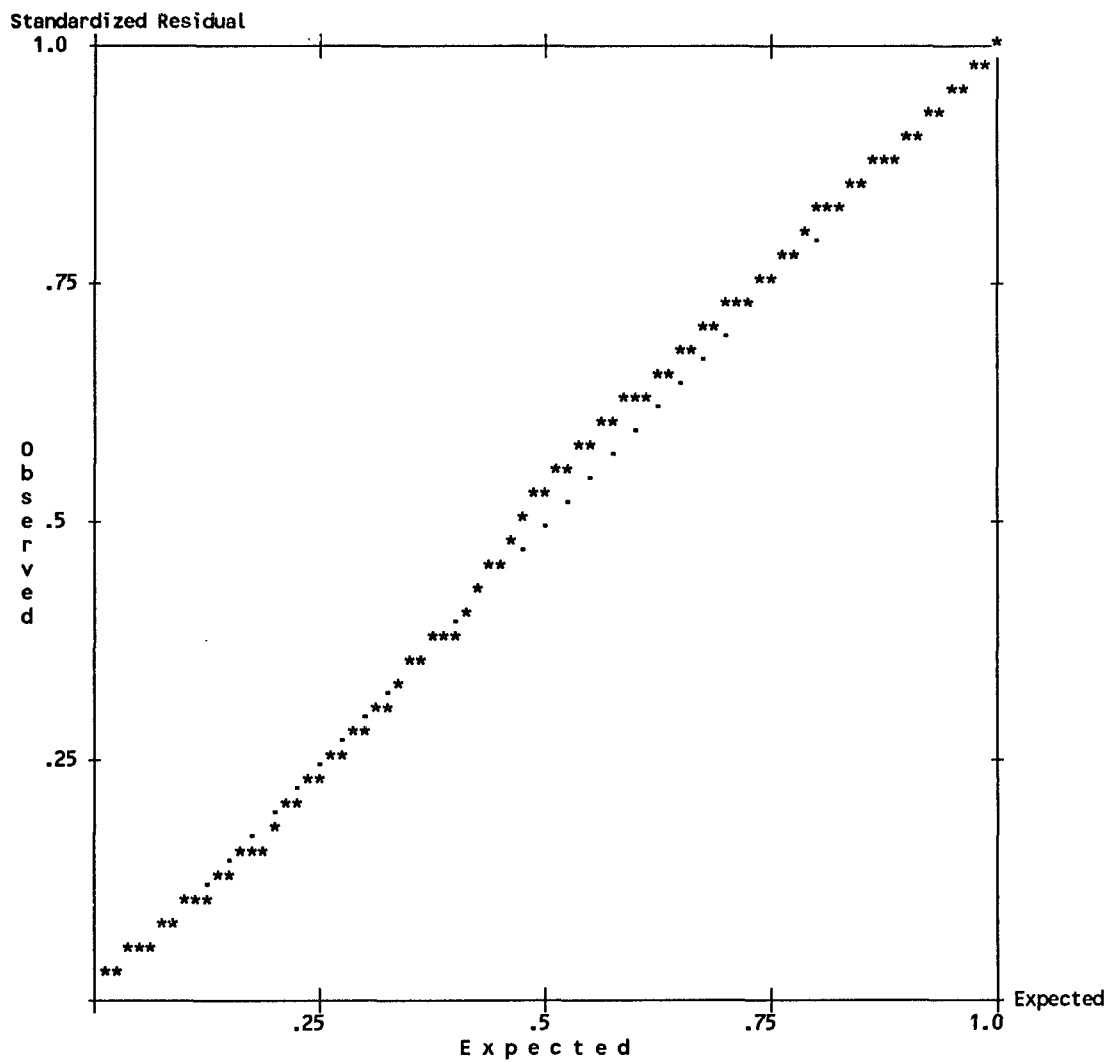
6.5   Regression Analyses of the Stratified AGI Data Bases

6.5.1   In General

Previous researchers have indicated that stratification of data bases in different ways (e.g., by level of income) may provide additional useful information (see, for example, Witte and Woodbury [1985]). With this in mind, the research data base was stratified by level of adjusted gross income. However, the recommendation of previous research was only one of the reasons for the stratification. The other, more practical, reason was to attempt to mitigate the effect of level of income variable which dominated the regression analysis of the entire research data base. The following summarizes the five AGI stratas analyzed in this study:

AGI	N	%	Amnesty Tax	%	Average Amnesty Tax	Average AGI
Less than $ 7,500	464	18.8	$ 49,316.15	4.9	$ 106.28	$ 4,568.04
$ 7,500 - 14,999	467	18.9	95,740.59	9.5	205.01	11,105.55
15,000 - 24,999	543	22.0	152,257.47	15.1	280.40	19,753.05
25,000 - 49,999	695	28.1	278,403.86	27.6	400.58	35,296.83
50,000 or more	301	12.2	433,310.59	42.9	1,439.57	331,500.89
TOTALS	2,470	100.0	$1,009,028.66	100.0	$ 408.51	$ 57,629.49

The analysis of the five AGI stratas proceeds as follows:

6.5.2   Analysis of Taxpayers With AGI Less Than $7,500

6.5.3   Analysis of Taxpayers With AGI From $7,500 to $14,999

6.5.4   Analysis of Taxpayers With AGI From $15,000 to $24,999

6.5.5   Analysis of Taxpayers With AGI From $25,000 to $49,999

6.5.6   Analysis of Taxpayers With AGI More Than $50,000

6.5.7   Comparison of the Strata Results

Table 6-8 presents a summary of the five AGI regression analyses, identifying significant variables across the five stratas and providing the regression coefficients. This summary does _not_ list the variables in the order they entered the various regression equations utilizing the stepwise method; it is only meant to provide an overview of the results for comparison purposes. As expected, the regression results vary among the AGI stratas with several new variables a part of the regressions (e.g., the URBAN variable and the SMSA9 variable [the Benton Harbor SMSA] are significant in two of the regressions, the professional occupational category is significant in the largest AGI strata. A further analysis of each of the stratas follows.

TABLE 6-8

A SUMMARY OF SIGNIFICANT VARIABLES IN THE STRATIFIED AGI REGRESSIONS

Dependent Variable.. NONCOMP LOG OF UNREPORTED INCOME

─────────────────────────── Variables in the Equation ───────────────────────────

AGI1.SYS (AGI LT $7500)		AGI2.SYS (AGI $7501-$14999)		AGI3.SYS (AGI $15000-$24999)		AGI4.SYS (AGI $25000-$50000)		AGI5.SYS (AGI $50000+)	
Variable	B	Variable	B	Variable	B	Variable	B	Variable	B
CONTACT	-.32869	CONTACT	-.83076	CONTACT	-1.20054	CONTACT	-1.46137	CONTACT	-2.35573
						OPPORT	.92541		
								OCT1	-.74837
OCT3	.70379			OCT3	.70344	OCT3	.55846		
		OCT4	.39623						
		OCT6	.84747	OCT6	1.04280				
OCT7	.32602								
		SELFEMPL	.48258	SELFEMPL	.58814				
AGILN	1.13508	AGILN	.87965						
EXEMPT	-.27490	EXEMPT	-.11332			AGILN	1.04657	AGILN	.73288
GENDER	.27088							EXEMPT	.27781
RATE533	-2.48008					NOFILE86	.27120	NOFILE86	.86327
								RATE635	-.53893
						PDPREP	.36589	PDPREP	.49987
								SMSA1	-.53720
								SMSA2	.84350
				SMSA3	1.00124				
						SMSA9	1.28879	SMSA9	-2.06258
				URBAN	-.49282			URBAN	1.24164
(Constant)	-2.15303	(Constant)	-.02895	(Constant)	8.89459	(Constant)	-2.10402	(Constant)	.69604
Multiple R	.56322	Multiple R	.42677	Multiple R	.47454	Multiple R	.49381	Multiple R	.64297
R Square	.31722	R Square	.18213	R Square	.22519	R Square	.24384	R Square	.41341
Adj R Square	.30674	Adj R Square	.17146	Adj R Square	.21651	Adj R Square	.23614	Adj R Square	.39108
Std Error	.88353	Std Error	1.20504	Std Error	1.35489	Std Error	1.26407	Std Error	1.52415

6.5.2   Analysis of Taxpayers With AGI of Less Than $7,500

6.5.2.1   In General

Table 6-9 presents the regression results for the data base created for taxpayers with AGI less than $7,500 (AGI1). The analysis of the regression occurs along several lines, including a discussion of the goodness of fit (R^2), an analysis of the regression coefficients and their confidence intervals, and a comparison of the results with other analyses.

6.5.2.2   Goodness of Fit

The model has a R^2 of .3172, and an adjusted R^2 of .3067 with seven variables in the equation. As a result, the independent variables in the model account for about 32 percent of the variance in the dependent variable (unreported income). The order of the variables into the equation, and their impact on R^2 is detailed in Table 6-9. As it was in the regression of the entire data base, the log of AGI (AGILN) is again powerful, with an R^2 of .2049 (about 65 percent of the variance explained by all seven independent variables). Other variables in the regression equation (along with their R^2 contributions) include the number of exemptions claimed on the return (.0417), prior contact with the Treasury Department (.0245), the sales occupational group (.0108), the retired/student occupational group (.0118), the variable signifying single males (.0120), and tax year 1985 (.0117). No other variables are significant at the .10 level.

TABLE 6-9

REGRESSION TO PREDICT NONCOMPLIANCE USING AGI1 DATA BASE

Variable Name	Coefficient (Standard Error)	t (Significance)	R^2 Adjusted R^2
AGILN	1.13508 (.08665)	13.099 (.0000)	.2049 .2032
EXEMPT	-.27490 (.05565)	-4.940 (.0000)	.4966 .2466
CONTACT	-.32869 (.08432)	-3.898 (.0001)	.5206 .2711
OCT3	.70379 (.22191)	3.172 (.0016)	.5309 .2818
OCT7	.32602 (.09660)	3.375 (.0008)	.5419 .2936
GENDER	.27088 (.09043)	2.995 (.0029)	.5528 .3056
RATE533	-2.48008 (.88889)	-2.790 (.0055)	.5632 .3172
(Constant)	-2.15303 (.71765)	-3.000 (.0028)	

6.5.2.3 Analysis of Regression Coefficients and Confidence Intervals

Table 6-10 presents the regression coefficients for each of the independent variables in the regression equation, along with their standard error and computed 95 percent confidence intervals.

Log of AGI (AGILN). The estimated regression coefficient of adjusted gross income is 1.13508. Thus, within this strata, amnesty participants with twice as much adjusted gross income relative to other amnesty participants had (after adjustment) about 119.6 percent more unreported income in AGI, ceteris paribus. This regression coefficient is about twice as large as the coefficient for the entire research data base.

Exemptions (EXEMPT). In this analysis, the exemption variable has a negative regression coefficient, probably indicating the use of exemptions in the computation of tax paid. The regression coefficient for this variable is -.27490, which signifies that amnesty participants with twice as many exemptions relative to other amnesty participants disclosed about 27.490 percent less unreported income, ceteris paribus. Of course, the exemption amount (which reduces AGI in computing taxable income) could explain this smaller amount of unreported income.

Contact (CONTACT). The estimated regression coefficient of the contact variable is -.32869, with a 95 percent confidence interval ranging from -.16299 to -.49439. This coefficient is about three times smaller than the coefficient for the entire research data base (-.93359), indicating a smaller level of distinction between taxpayers with and without contact (i.e., those taxpayers without contact indicated did not have as great a difference in unreported income as those taxpayers

TABLE 6-10

CONFIDENCE INTERVALS OF REGRESSION COEFFICIENTS FOR AGI1 DATA BASE

Variable Name	Coefficient	Standard Error	95 Percent Confidence Interval	
AGILN	1.13508	.08665	.96479	1.30537
EXEMPT	-.27490	.05565	-.38426	-.16554
CONTACT	-.32869	.08432	-.49439	-.16299
OCT3	.70379	.22191	.26770	1.13988
OCT7	.32602	.09660	.13618	.51585
GENDER	.27088	.09043	.09316	.44860
RATE533	-2.48008	.88889	-4.22691	-.73325
(Constant)	-2.15303	.71765	-3.56334	-.74271

with contact). It is noteworthy that a smaller proportion of taxpayers in this range had contact with the Treasury Department when compared to the entire research data base (i.e., although there were more no contact taxpayers in this group, the difference between the groups is smaller than the entire research data base).

Occupations (OCT3, OCT7). Two different occupation variables are part of the regression equation -- sales (OCT3), and retired/student (OCT5). The impact of each of these variables as part of the regression equation is briefly discussed below.

Sales. For taxpayers who listed sales as their occupation, the estimated regression coefficient in this study is .70379 (as compared to .58912 for the entire research data base), indicating that when controlling for other independent variables, these taxpayers disclosed about 70.379 percent more unreported income than taxpayers in the occupations omitted from the regression equation. The 95 percent confidence interval for the population parameter runs from .26770 to 1.13988.

Retired/Student. Although not significant in the regression analysis of the entire research data base, this occupational category is significant in this stratified AGI analysis. The inclusion of this variable in the regression equation is not surprising based on the income level being examined. The regression coefficient is .32602, which indicates that these taxpayers disclosed about 32.602 percent more unreported income than taxpayers in the occupations omitted from the regression equation. The 95 percent confidence interval for the population parameter runs from .13618 to .51585. It is important to stress, once again, that this

finding does not imply that retired taxpayers and/or students are advertent tax evaders. There may be other reasons why they failed to comply (e.g., lack of knowledge, confusion, etc.).

Gender. The regression coefficient indicates that single males disclosed about 27.088 percent more unreported income than other taxpayers, ceteris paribus. This coefficient is larger than the coefficient for the entire research data base (.19001). The increase is significant, because females made up a larger proportion of this AGI strata than in the entire research data base. In addition, there was more information available regarding gender in this AGI strata (about 89 percent of the returns in the strata were filed by single individuals). The 95 percent confidence interval for the regression coefficient ranges from .09316 to .44860. As a result, the population parameter would indicate single males could disclose from 9.3 to 44.9 percent more unreported income than other taxpayers.

Tax Year 1985 (RATE533). The regression coefficient indicates that taxpayers who filed a return during 1985 revealed about 248 percent less unreported income than taxpayers who filed a return during a year omitted from the regression equation. Based on a review of the data in the strata, there was only 1 return (out of 464 in the strata) filed in 1985. As a result, it would seem that the inclusion of this variable in the model should be viewed skeptically. In addition, the standard error of the regression coefficient is very large (.88889).

6.5.2.4 Summary

Several variables and their signs that are part of the regression equation are not surprising -- contact with the Treasury Department

(negatively related), and the retired/student occupational group (positively related). More surprising was the strength of the level of income variable (which the stratification sought to weaken), indicating a positive relationship between level of income and unreported income. The inclusion of the single male variable was also not surprising, given the descriptive statistics of the retired/student occupational group (lower income levels, and greater proportion of single male taxpayers than the research data base).

6.5.3 Analysis of Taxpayers With AGI From $7,500 to $14,999

6.5.3.1 In General

Table 6-11 presents the regression results for the data base created for taxpayers with AGI of $7,500 or more but less than $15,000 (AGI2). The analysis of the regression includes a discussion of the goodness of fit (R^2), an analysis of the regression coefficients and their confidence intervals, and a comparison of the results with the results from other analyses.

6.5.3.2 Goodness of Fit

The model has a R^2 of .1821, and an adjusted R^2 of .1715 with six variables in the equation. As a result, the independent variables in the model account for only about 18 percent of the variance in the dependent variable (unreported income). The order of the variables into the equation, and their impact on R^2 is detailed in Table 6-11. The first variable to enter the regression equation is contact, with an R^2 of .1076. Other variables in the regression equation (along with their R^2 contributions) include the self-employed occupational group (..0345), the level of income (.114), the skilled labor occupational group (.110), the

TABLE 6-11

REGRESSION TO PREDICT NONCOMPLIANCE USING AGI2 DATA BASE

Variable Name	Coefficient (Standard Error)	t (Significance)	R^2 Adjusted R^2
CONTACT	-.83076 (.12534)	-6.628 (.0000)	.1076 .1057
OCT6	.84747 (.20835)	4.068 (.0001)	.1421 .1384
AGILN	.87965 (.29079)	3.025 (.0026)	.1535 .1480
OCT4	.39623 (.16935)	2.340 (.0197)	.1645 .1573
EXEMPT	-.11332 (.04790)	-2.366 (.0184)	.1743 .1653
SELFEMPL	.48258 (.22968)	2.101 (.0362)	.1821 .1715
(Constant)	-.02895 (2.67789)	-.011 (.9914)	

number of exemptions claimed on the return (.0098), and the non-occupational self-employment variable (.0078).

The sales occupational category (not significant at the .05 level) is significant, and positively related to the dependent variable at the .10 level (.0891).

6.5.3.3 Analysis of Regression Coefficients and Confidence Intervals

Table 6-12 presents the regression coefficients for each of the independent variables in the regression equation, along with their standard error and computed 95 percent confidence intervals.

Contact (CONTACT). The estimated regression coefficient of the contact variable is -.83076, with a 95 percent confidence interval ranging from -.58949 to -1.107707. This coefficient is only slightly smaller than the coefficient for the entire research data base (-.93359), but is almost three times as large as the AGI1 regression coefficient. Apparently, as income increases, so does the reporting difference between the contact and no contact groups.

Occupations (OCT6, OCT5). Two different occupation variables are part of the regression equation -- self-employed (OCT6), and skilled labor (OCT4). The impact of each of these variables as part of the regression equation is briefly discussed below.

Self-Employed. The estimated regression coefficient for self-employed taxpayers is .84747, with a 95 percent confidence interval ranging from .43804 to 1.25690. The regression coefficient for the entire research data base was .53310. These results can be interpreted as indicating that taxpayers who listed their occupation as self-employed disclosed

TABLE 6-12

CONFIDENCE INTERVALS OF REGRESSION COEFFICIENTS FOR AGI2 DATA BASE

Variable Name	Coefficient	Standard Error	95 Percent Confidence Interval	
CONTACT	-.83076	.12534	-1.07707	-.58445
OCT6	.84747	.20835	.43804	1.25690
AGILN	.87965	.29079	.30821	1.45110
OCT4	.39623	.16935	.06344	.72902
EXEMPT	-.11332	.04790	-.20745	-.01919
SELFEMPL	.48258	.22968	.03123	.93394
(Constant)	-.02895	2.67789	-5.29136	5.23346

84.747 percent more unreported income than taxpayers in the occupations omitted from the regression equation, ceteris paribus. The 95 percent confidence interval indicates that the population parameter for taxpayers disclosing their occupation as self-employed likely falls in a range from 43.8 to 125.7 percent more unreported income than those taxpayers in the occupations omitted from the regression equation.

Skilled Labor. For taxpayers who listed their occupation as one grouped in the skilled labor category for this study, the estimated regression coefficient in this study is .39623, indicating that when controlling for other independent variables, these taxpayers disclosed about 39.623 percent more unreported income than taxpayers in the occupations omitted from the regression equation. The 95 percent confidence interval for the coefficient in measuring the population parameter runs from .06344 to .72902. This indicates that (with 95 percent confidence) the population parameter would disclose that these taxpayers reported from 6.3 to 72.9 percent more unreported income than taxpayers in the occupations omitted from the regression equation. This variable had not been included in any of the previous regression equations.

Log of AGI (AGILN). The estimated regression coefficient of adjusted gross income is .87965. Thus, within this strata, amnesty participants with twice as much adjusted gross income relative to other amnesty participants had (after adjustment) about 84.0 percent more unreported income in AGI, ceteris paribus. This regression coefficient is about 50 percent larger than the coefficient for the entire research data base, but smaller than the coefficient in the AGI1 regression.

Exemptions (EXEMPT). As in the analysis of AGI1, the exemption variable has a negative regression coefficient, probably indicating the use of exemptions in the computation of tax paid. The regression coefficient for this variable is -.11332, which signifies that amnesty participants with twice as many exemptions relative to other amnesty participants disclosed about 11.332 percent less unreported income, ceteris paribus. Of course, the exemption amount (which reduces AGI in computing taxable income) could explain this smaller amount of unreported income.

Self-Employed Taxpayers (SELFEMPL). The self-employed variable created as an alternative to the occupational coding has a regression coefficient of .48258, indicating that these amnesty participants revealed about 48.258 percent more unreported income than participants who were not determined to be self-employed under the parameters indicated, ceteris paribus. This coefficient is about 60 percent larger than the coefficient in the regression of the entire research data base (.29934).

Although significant, and of further support to the contention that self-employed taxpayers have a greater propensity to evade taxes, this variable is not as significant as the occupational variable (as was the case in the regression for the entire research data base). However, the significance of the occupational variable is based on a comparison to taxpayers in the professional support category. Here, the comparison group is taxpayers who are not self-employed.

6.5.3.4 Summary

Contact with the Treasury Department became the dominant variable in the analysis of this AGI strata, and the regression coefficient increased

dramatically over the previous AGI strata, indicating more of a difference between taxpayers with and without contact. The regression indicated a new variable not a part of previous analyses -- the skilled labor occupational group (positively related to noncompliance). Self-employed taxpayers (both the occupational and non-occupational variable) were positively related to noncompliance in this AGI strata, and the sales occupational group (although not significant at the .05 level) was significant and positively related to noncompliance in this strata at the .10 level (.0891).

6.5.4   Analysis of Taxpayers With AGI From $15,000 to $24,999

6.5.4.1   In General

Table 6-13 presents the regression results for the data base created for taxpayers with AGI of $15,000 or more, but less than $24,999 (AGI3). The analysis of the regression occurs along several lines, including a discussion of the goodness of fit (R^2), an analysis of the regression coefficients and their confidence intervals, and a comparison of the results with other analyses.

6.5.4.2   Goodness of Fit

The model has a R^2 of .2252, and an adjusted R^2 of .2165 with six variables in the equation. As a result, the independent variables in the model account for about 23 percent of the variance in the dependent variable (unreported income). The order of the variables into the equation, and their impact on R^2 is detailed in Table 6-13. As it was in the regression of the second AGI strata (AGI2), the first variable to enter the regression equation is contact, with an R^2 of .1648. This is a powerful variable in this regression equation, accounting for about 73

TABLE 6-13

REGRESSION TO PREDICT NONCOMPLIANCE USING AGI3 DATA BASE

Variable Name	Coefficient (Standard Error)	t (Significance)	R^2 Adjusted R^2
CONTACT	-1.20054 (.17706)	-6.780 (.0000)	.1648 .1633
OCT6	1.04280 (.27532)	3.788 (.0002)	.1840 .1810
OCT3	.70344 (.20568)	3.420 (.0007)	.1982 .1938
URBAN	-.49282 (.15228)	-3.236 (.0013)	.2117 .2058
SMSA3	1.00124 (.43424)	2.306 (.0215)	.2191 .2118
SELFEMPL	.58814 (.28549)	2.060 (.0399)	.2252 .2165
(Constant)	8.89459 (.20277)	43.865 (.0000)	

percent of variance in the dependent variable accounted for by all six independent variables. Other variables in the regression equation (along with their R^2 contributions) include the self-employed occupational group (.0192), the sales occupational group (.0142), taxpayers living in a SMSA (.0134), taxpayers living in the Jackson SMSA (.0074), and the non-occupational self-employment variable (.0061).

The unskilled labor occupational category (not significant at the .05 level) is significant, and negatively correlated to the dependent variable at the .10 level (.0866), as it was in the analysis of the entire research data base.

6.5.4.3 Analysis of Regression Coefficients and Confidence Intervals

Table 6-14 presents the regression coefficients for each of the independent variables in the regression equation, along with their standard error and computed 95 percent confidence intervals.

Contact (CONTACT). The estimated regression coefficient of the contact variable is -1.20054, with a 95 percent confidence interval ranging from -.85272 to -1.54836. This coefficient is significantly larger than the coefficient for the entire research data base (-.93359), and continues to increase across AGI stratas.

Occupations (OCT6, OCT3). Two different occupation variables are part of the regression equation -- self-employed (OCT6), and sales (OCT3). The impact of each of these variables as part of the regression equation is briefly discussed below.

Self-Employed. The estimated regression coefficient for self-employed taxpayers is 1.04280, with a 95 percent confidence interval ranging from

TABLE 6-14

CONFIDENCE INTERVALS OF REGRESSION COEFFICIENTS FOR AGI3 DATA BASE

Variable Name	Coefficient	Standard Error	95 Percent Confidence Interval	
CONTACT	-1.20054	.17706	-1.54836	-.85272
OCT6	1.04280	.27532	.50197	1.58363
OCT3	.70344	.20568	.29941	1.10748
URBAN	-.49282	.15228	-.79195	-.19368
SMSA3	1.00124	.43424	.14823	1.85426
SELFEMPL	.58814	.28549	.02733	1.14894
(Constant)	8.89459	.20277	8.49626	9.29292

.50197 to 1.58363. The regression coefficient for the entire research data base was .53310. Therefore, taxpayers in the self-employed occupational group revealed about 50 percent more unreported income than those in the entire research data base. Within this AGI strata, taxpayers who listed their occupation as self-employed disclosed 104.280 percent more unreported income than taxpayers in the occupations omitted from the regression equation, ceteris paribus. In addition, the regression coefficient in this strata is about 23 percent larger than the coefficient in the AGI2 strata (.84747). As income increases, therefore, the size of underreporting increases within this occupational group.

Sales. For taxpayers who listed sales as their occupation, the estimated regression coefficient in this AGI strata is .70344 (as compared to .58912 for the entire research data base, and .70379 in the AGI1 strata), indicating that when controlling for other independent variables, these taxpayers disclosed about 70.344 percent more unreported income than taxpayers in the occupations omitted from the regression equation. The 95 percent confidence interval for the population parameter runs from .29941 to 1.10748.

Taxpayers Living in a SMSA (URBAN). This variable was created as a composite of all the SMSA variables, and is meant to test for a difference between urban and rural taxpayers. Although not significant in any other regression equations, this variable is significant here, with a regression coefficient of -.49282, indicating that taxpayers in this AGI strata living in a SMSA disclosed about 49.282 percent less unreported income than taxpayers living in a rural area. The 95 percent

confidence interval for estimating the population parameter ranges from-.19368 to -.79195.

Jackson and Jackson County (SMSA3). Based on the regression coefficient, amnesty participants in this AGI strata living in the city of Jackson or Jackson county disclosed about 100.124 percent more unreported income than amnesty participants in this strata living in other Standard Metropolitan Statistical Areas. Because of the large standard error, the 95 percent confidence interval for the population parameter ranges from about 14.8 percent to 185.4 percent. This, too, is a new variable in a regression equation. When viewed in light of the previous variable, it becomes evident that the rural area had some very significant noncompliers in this AGI strata.

Self-Employed Taxpayers (SELFEMPL). As in the prior AGI strata, the self-employed variable created as an alternative to the occupational coding is a part of this regression equation. The variable has a regression coefficient of .58814, indicating that these amnesty participants revealed about 58.814 percent more unreported income than participants who were not determined to be self-employed under the parameters indicated, ceteris paribus. This coefficient is about 60 percent larger than the coefficient in the regression of the entire research data base (.29934), and 20 percent larger than the coefficient in the regression equation of AGI2 (.48258).

6.5.4.4 Summary

Contact with the Treasury Department again was the dominant variable in the analysis of this AGI strata. The regression coefficient has increased in size over each of the previous AGI stratas, indicating increasing differences between taxpayers with and without contact. In

addition, it accounted for the majority of the variance in dependent variable among the independent variables in the regression equation (about 73 percent). Self-employed taxpayers (both the occupational and non-occupational variable) and the sales occupational group were also positively related to noncompliance in this AGI strata. Two geographically related variables are a part of the regression equation, and indicate that taxpayers living outside a SMSA or living inside the Jackson SMSA are more likely to be noncompliant. Conspicuous by its absence is the level of income variable. This is the only AGI strata where it was not a part of the regression equation. The unskilled labor occupational group (although not significant at the .05 level) was significant and negatively related to noncompliance in this strata at the .10 level (.0866).

6.5.5   Analysis of Taxpayers With AGI From $25,000 to $49,999

6.5.5.1   In General

Table 6-15 presents the regression results for the data base created for taxpayers with AGI of $25,000 or more but less than $50,000 (AGI4). The analysis of the regression includes a discussion of the goodness of fit (R^2), an analysis of the regression coefficients and their confidence intervals, and a comparison of the results with the results from other analyses.

6.5.5.2   Goodness of Fit

The model has a R^2 of .2438, and an adjusted R^2 of .2361 with seven variables in the equation. As a result, the independent variables in the model account for about 24 percent of the variance in the dependent

TABLE 6-15

REGRESSION TO PREDICT NONCOMPLIANCE USING AGI4 DATA BASE

Variable Name	Coefficient (Standard Error)	t (Significance)	R^2 Adjusted R^2
CONTACT	-1.46137 (.15955)	-9.159 (.0000)	.1569 .1557
OPPORT	.92541 (.24897)	3.717 (.0002)	.1809 .1785
AGILN	1.04657 (.25388)	4.122 (.0000)	.1992 .1958
OCT3	.55846 (.16241)	3.439 (.0006)	.2156 .2110
PDPREP	.36589 (.10044)	3.643 (.0003)	.2301 .2245
NOFILE86	.27120 (.11036)	2.457 (.0142)	.2373 .2307
SMSA9	1.28879 (.52959)	2.434 (.0152)	.2438 .2361
(Constant)	-2.10402 (2.65814)	-.792 (.4289)	

variable (unreported income). The order of the variables into the equation, and their impact on R^2 is detailed in Table 6-15.

As in the two previous regression equations (related to AGI2 and AGI3), the first variable to enter the regression equation is contact, with an R^2 of .1569. Once again, this is a powerful variable in this regression equation, accounting for about 64 percent of variance in the dependent variable accounted for by all seven independent variables. Other variables in the regression equation (along with their R^2 contributions) include opportunity (.0240), level of income (.0184), the sales occupational group (.0164), taxpayers using paid preparers to prepare their returns (.0145), 1986 nonfilers (.0073), and taxpayers living in the Benton Harbor SMSA (.0065).

The unskilled labor occupational category (not significant at the .05 level) is significant, and negatively related to the dependent variable at the .10 level (.0673), as it was in the analysis of the entire research data base.

6.5.3.3   Analysis of Regression Coefficients and Confidence
Intervals

Table 6-16 presents the regression coefficients for each of the independent variables in the regression equation, along with their standard error and computed 95 percent confidence intervals.

Contact (CONTACT). The estimated regression coefficient of the contact variable is -1.46137, with a 95 percent confidence interval ranging from -1.14810 to -1.77464. This coefficient is significantly larger than the coefficient for the entire research data base (-.93359), and even larger than the coefficient related to the AGI3 strata (-1.20054), continuing its pattern of increasing as income level increases.

TABLE 6-16

CONFIDENCE INTERVALS OF REGRESSION COEFFICIENTS FOR AGI4 DATA BASE

Variable Name	Coefficient	Standard Error	95 Percent Confidence Interval	
CONTACT	-1.46137	.15955	-1.77464	-1.14810
OPPORT	.92541	.24897	.43659	1.41424
AGILN	1.04657	.25388	.54810	1.54504
OCT3	.55846	.16241	.23959	.87733
PDPREP	.36589	.10044	.16868	.56309
NOFILE86	.27120	.11036	.05451	.48789
SMSA9	1.28879	.52959	.24897	2.32861
(Constant)	-2.10402	2.65814	-7.32307	3.11503

Opportunity to Evade (OPPORT). Recall that this variable is created via a composite of occupation (self-employed, business, professional, or sales), an income level of $30,000 or greater, and access to cash income sources. This is the first AGI strata where it is a relevant variable because of the AGI requirement.

The estimated regression coefficient of the variable is .92541 (compared to .84392 for the entire research data base). The 95 percent confidence interval runs from .43659 to 1.41424. The confidence interval is large due to the size of the standard error of the regression coefficient, indicating a great deal of variability in the coefficient.

The regression coefficient indicates that amnesty participants with the opportunity to evade taxes on average underreported 92.541 percent more income than amnesty participants without the opportunity characteristics, ceteris paribus. This result is not surprising given the descriptive statistics related to this group of taxpayers. Although small in number, their mean amnesty tax payment was more than four times as large as the mean of the research data base. With 95 percent confidence, these results indicate that the population parameter shows that taxpayers with opportunity underreport income by at least 43.7 percent and possibly as much as 141.4 percent when compared to those amnesty participants without the opportunity characteristics.

Log of AGI (AGILN). The estimated regression coefficient of adjusted gross income is 1.04657. Thus, within this strata, amnesty participants with twice as much adjusted gross income relative to other amnesty participants had (after adjustment) about 106.6 percent more unreported income in AGI, ceteris paribus. This regression coefficient

is about twice as large as the coefficient for the entire research data base.

Sales Occupational Category (OCT3). The estimated regression coefficient for self-employed taxpayers is .55846, with a 95 percent confidence interval ranging from .23959 to .87773. This coefficient is smaller than the coefficients in AGI1 (.70379) and AGI3 (.70344), but is similar to that for the entire research data base (.58912), although the standard error is much larger. Within this AGI strata, taxpayers in the sales occupational group disclosed about 55.846 percent more unreported income than taxpayers in the occupations omitted from the regression equation.

Paid Preparers Used to Prepare Returns (PDPREP). The regression coefficient for this variable is .36589 (as compared to .16548 for the entire research data base) indicating that amnesty participants who used paid tax-return preparers disclosed about 36.6 percent more unreported income than amnesty participants who prepared their own return. The 95 percent confidence interval for this coefficient ranges from .16868 to .56309.

Once again, it is not possible to make a conclusion regarding the implications of return preparers assisting in the noncompliance decision; the only conclusion that can be made is that these returns disclosed more previously unreported income. However, it is interesting that this variable has not been a part of any of the previous AGI strata regressions. It therefore appears that this variable may be related to income level (i.e., as income level increases taxpayers seek out tax return preparers).

Non-Filers in 1986 (NOFILE86). This variable was included in the study as a surrogate for an attitudinal variable related to the noncompliance decision. The regression coefficient for this variable is .27120 (as compared to .17434 for the entire research data base). We can conclude that these taxpayers disclosed 27.120 percent more unreported income than those amnesty participants who filed a tax return in 1986. The 95 percent confidence interval for this coefficient ranges from .05451 to .48789.

Benton Harbor and Berrien County (SMSA9). Based on the regression coefficient, amnesty participants in this AGI strata living in the city of Benton Harbor or Berrien county disclosed about 128.879 percent more unreported income than amnesty participants in this strata living elsewhere. Because of the large standard error, the 95 percent confidence interval for the population parameter ranges from about 24.9 percent to 232.9 percent. This is another new geographic variable in a regression equation.

6.5.5.4 Summary

Contact with the Treasury Department again is a dominant variable in the analysis of this AGI strata. The regression coefficient increased in size over the previous AGI stratas, indicating increasing differences between taxpayers with and without contact. Although not as powerful as in the previous AGI strata, it still accounted for the majority of the variance in dependent variable among the independent variables in the regression equation (here, about 64 percent). This AGI strata was the first where opportunity to evade taxes could be evaluated, and it was the second variable to enter the regression equation. The level of income variable was significant again in this AGI strata. Taxpayers who failed

to file a return in 1986 also was a part of the regression equation for this strata, and positively related to noncompliance. It had not appeared in any previous AGI strata regression equations. The sales occupational group were also positively related to noncompliance in this AGI strata. The Benton Harbor SMSA was found to be positively related to noncompliance, as was the variable related to paid preparation of the tax return. Finally, as in the AGI3 strata, the unskilled labor occupational category (not significant at the .05 level) is significant, and negatively related to the dependent variable at the .10 level (.0673).

6.5.6   Analysis of Taxpayers With AGI of $50,000 or More

6.5.6.1   In General

Table 6-17 presents the regression results for the data base created for taxpayers with AGI of $50,000 or more (AGI5). The analysis of the regression includes a discussion of the goodness of fit (R^2), an analysis of the regression coefficients and their confidence intervals, and a comparison of the results with the results from other analyses.

6.5.6.2   Goodness of Fit

The model has a R^2 of .4134, and an adjusted R^2 of .3911 with eleven variables in the equation. As a result, the independent variables in the model account for about 41 percent of the variance in the dependent variable (unreported income). This is the greatest amount of variance accounted for in any of the regression equations. The order of the variables into the equation, and their impact on R^2 is detailed in Table 6-17.

As in the three previous regression equations (related to AGI2, AGI3, and AGI4), the first variable to enter the regression equation is

TABLE 6-17

REGRESSION TO PREDICT NONCOMPLIANCE USING AGI5 DATA BASE

Variable Name	Coefficient (Standard Error)	t (Significance)	R^2 Adjusted R^2
CONTACT	-2.35573 (.29256)	-8.052 (.0000)	.1305 .1276
AGILN	.73288 (.10632)	6.893 (.0000)	.2356 .2304
EXEMPT	.27781 (.06357)	4.370 (.0000)	.2744 .2671
NOFILE86	.86327 (.21504)	4.015 (.0001)	.3096 .3003
OCT1	-.74837 (.19685)	-3.802 (.0002)	.3322 .3208
SMSA2	.84350 (.44704)	1.887 (.0602)	.3486 .3353
RATE635	-.53893 (.18970)	-2.841 (.0048)	.3654 .3502
URBAN	1.24164 (.31401)	3.954 (.0001)	.3807 .3637
PDPREP	.49987 (.20418)	2.448 (.0149)	.3949 .3762
SMSA1	-.53720 (.22569)	-2.380 (.0179)	.4029 .3823
SMSA9	-2.06258 (.90786)	-2.272 (.0238)	.4134 .3911
(Constant)	.69604 (1.22495)	.568 (.5703)	

contact, with an R^2 of .1305. Although powerful, this variable does not overpower the other variables in the regression equation. Other variables in the regression equation (along with their R^2 contributions) include level of income (.1050), number of exemptions claimed (.0389), 1986 nonfilers (.0352), the professional occupational group (.0225), the Ann Arbor SMSA (.0164), tax year 1983 (.0168), taxpayers living in a SMSA (.0153), taxpayers using paid preparers to prepare their returns (.0143), taxpayers living in the metropolitan Detroit SMSA (.0080), and taxpayers living in the Benton Harbor SMSA (.0105).

Opportunity to avoid taxes, although not significant at the .05 level is significant and positively correlated to the dependent variable at the .10 level (.0613), as is gender (.0533), and the sales occupational group (.0857). The retired/student occupational group is also significant at the .10 level (.0545), but negatively correlated with the dependent variable.

6.5.6.3   Analysis of Regression Coefficients and Confidence Intervals

Table 6-18 presents the regression coefficients for each of the independent variables in the regression equation, along with their standard error and computed 95 percent confidence intervals.

Contact (CONTACT). The estimated regression coefficient of the contact variable is -2.35573, with a 95 percent confidence interval ranging from -1.77991 to -2.93154. The size of the confidence interval is due to the size of the standard error of the regression coefficient. This coefficient has become larger with each AGI strata, and the pattern continues in this AGI strata. In addition, it is significantly larger than the coefficient for the entire research data base (-.93359).

TABLE 6-18

CONFIDENCE INTERVALS OF REGRESSION COEFFICIENTS FOR AGI5 DATA BASE

Variable Name	Coefficient	Standard Error	95 Percent Confidence Interval	
CONTACT	-2.35573	.29256	-2.93154	-1.77991
AGILN	.73288	.10632	.52361	.94215
EXEMPT	.27781	.06357	.15269	.40293
NOFILE86	.86327	.21504	.44004	1.28651
OCT1	-.74837	.19685	-1.13581	-.36094
SMSA2	.84350	.44704	-.03637	1.72337
RATE635	-.53893	.18970	-.91230	-.16557
URBAN	1.24164	.31401	.62361	1.85968
PDPREP	.49987	.20418	.09801	.90173
SMSA1	-.53720	.22569	-.98141	-.09300
SMSA9	-2.06258	.90786	-3.84943	-.27572
(Constant)	.69604	1.22495	-1.71492	3.10699

<u>Log of AGI (AGILN)</u>. The estimated regression coefficient of adjusted gross income is .73288. Thus, within this strata, amnesty participants with twice as much adjusted gross income relative to other amnesty participants had (after adjustment) about 66.2 percent more unreported income in AGI, ceteris paribus. This regression coefficient is about 25 percent larger than the coefficient for the entire research data base, and is the smallest level of income coefficient among the AGI stratas.

<u>Exemptions (EXEMPT)</u>. Although the regression coefficient for this variable was negative in the lowest two AGI stratas, it is positive in this AGI strata. The regression coefficient is .27781 (compared to .04797 in the regression of the research data base). This indicates that amnesty participants within this strata with twice as many exemptions relative to other strata members disclosed about 27.781 percent more unreported income, ceteris paribus. The 95 percent confidence interval for the population parameter runs from .15269 to .40293.

<u>Non-Filers in 1986 (NOFILE86)</u>. This variable was included in the study as a surrogate for an attitudinal variable related to the noncompliance decision. The regression coefficient for this variable is .86327 (a significantly higher coefficient when compared to a .27120 coefficient in the AGI4 strata, and a .17434 coefficient for the entire research data base). It is interesting to note that the level of unreported income increases as income level increases.

We can conclude that these taxpayers disclosed 86.327 percent more unreported income than those amnesty participants who filed a tax return in 1986. The 95 percent confidence interval for this coefficient ranges from .44004 to 1.28651.

Professional Occupational Category (OCT1). This is the first time the professional occupation category variable has appeared in a regression equation. Even more surprising is the fact that the regression coefficient is negative (-.74837). The 95 percent confidence interval ranges from -.36094 to -1.13581. Previous research has found that taxpayers in this occupational category (see, for example, Westat [1980b] and Witte and Woodbury [1985]) are generally associated with lower levels of compliance. In this analysis, taxpayers in the professional occupational group disclosed about 74.837 percent less unreported income than taxpayers in the occupations omitted from the regression equation.

Tax Year 1983 (RATE635). As mentioned before, during several years in the early 1980's, the Michigan flat tax rate varied from 4.6 percent (the "normal rate" during most years) to 5.1 percent in 1982, 6.35 percent in 1983, 5.85 percent in 1984, and 5.33 percent in 1985. The regression coefficient indicates that amnesty participants who filed a 1983 tax return revealed about 53.893 percent less unreported income than amnesty participant who filed a return during a year when the tax rate was 4.6 percent (the base dummy variable -- all tax years prior to 1982), ceteris paribus. This compares to a regression coefficient of .13441 for the regression of the entire data base. The 95 percent confidence interval indicates a population parameter in the range of -.16557 to-.91230. As was mentioned before, this finding could merely be a reflection of the economic conditions in the early 1980's, rather than an indication that higher tax rates are associated with higher rates of compliance -- it could be that because the economy was good during 1982,

1983, and 1984, taxpayers were more apt to report and pay taxes on all their income.

Taxpayers Living in a SMSA (URBAN). This variable was created as a composite of all the SMSA variables, and is meant to test for a difference between urban and rural taxpayers. This variable was also significant in the analysis of the AGI3 strata (although no where else). Here, however, this variable has a regression coefficient of 1.24164 (as compared to -.49282 in the AGI3 analysis), indicating that taxpayers in this AGI strata living in a SMSA disclosed about 124.164 percent more unreported income than taxpayers living in a rural area. The 95 percent confidence interval for estimating the population parameter ranges from .62361 to 1.85968.

Paid Preparers Used to Prepare Returns (PDPREP). The regression coefficient for this variable is .49987 (as compared with .36589 in the analysis of the AGI4 strata and .16548 for the entire research data base) indicating that amnesty participants who used paid tax-return preparers disclosed about 50 percent more unreported income than amnesty participants who prepared their own return. The 95 percent confidence interval for this coefficient ranges from .09801 to .90173.

Once again, it is not possible to make a conclusion regarding the implications of return preparers assisting in the noncompliance decision; the only conclusion that can be made is that these returns disclosed more previously unreported income. It is, however, interesting that this variable only appears in the regression equations for the highest two AGI stratas.

Geographic Regions (SMSA1, SMSA2, and SMSA9). Three SMSA variables are a part of this regression equation; one is positively related to noncompliance and two are negatively related to noncompliance.

Metropolitan Detroit (SMSA1). SMSA1 includes a large part of southeastern Michigan, including all of metropolitan Detroit. The regression coefficient indicates that for this AGI strata, taxpayers living in this area disclosed 53.720 percent less unreported income than taxpayers living in regions omitted from the regression equation. This finding is similar in direction, but much larger than the regression coefficients of the no contact data bases, where the regression coefficients were -.21078 (CONNCON) and -.22488 (CONNCON2).

Benton Harbor and Berrien County (SMSA9). Based on the regression coefficient, amnesty participants in this AGI strata living in the city of Benton Harbor or Berrien county disclosed about 206.258 percent less unreported income than amnesty participants in this strata living in regions omitted from the regression equation. The direction of the coefficient is the opposite of what it was in the previous AGI strata (AGI4). In addition, because the coefficient has a very large standard error (.90786), the 95 percent confidence interval for the population parameter ranges from about -27.6 percent to -385.0 percent.

Ann Arbor and Washtenaw County (SMSA2). Based on the regression coefficient, amnesty participants living in Ann Arbor or Washtenaw county disclosed about 84.350 percent more unreported income than amnesty participants living in regions omitted from the regression equation. As

can be seen from the 95 percent confidence interval (which includes zero), this variable is not significant at the .05 level, although it was when it entered the equation. The 95 percent confidence interval for the population parameter ranges from about -3.64 percent to 172.34 percent.

6.5.6.4 Summary

Contact with the Treasury Department continued to be the most significant variable in the regression equation, and by increasing in magnitude again completed a pattern that was noted beginning with the second AGI strata -- as income level increases, so does the size of the regression coefficient. Level of income was the second variable to enter the regression equation. Surprisingly, the professional occupational category was a significant variable for the first time in any regression equation, and was negatively related to noncompliance (when compared to the base occupational group -- professional services). The variable related to taxpayers who failed to file a return in 1986 also was a part of the regression equation for this strata, positively related to noncompliance. It increased in magnitude over the previous AGI strata. Four geographic variables are part of the regression equation -- three SMSA variables [metropolitan Detroit and Benton Harbor (both negatively related to noncompliance), and Ann Arbor (positively related to noncompliance)] and the variable indicating taxpayers living in a SMSA (positively related to noncompliance). As in the previous AGI strata, the variable indicating the use of professional tax return preparers was part of the regression equation.

Opportunity to avoid taxes, although not significant at the .05 level is significant and positively related to the dependent variable at the .10 level (.0613), as is gender (.0533), and the sales occupational

group (.0857). The retired/student occupational group is also significant at the .10 level (.0545), but negatively related with the dependent variable.

6.5.7 Comparison of the AGI Strata Results

Several interesting comments can be made about the regression analyses of the AGI stratas. In addition, the regressions provide some insight into how the noncompliance decision may change across levels of income.

Contact. Contact was the only variable to appear in all five AGI strata regressions -- always with a negative regression coefficient. In addition, the size of the regression coefficient consistently increased across the stratas. It could be concluded that at higher levels of income, certain taxpayers without contact had more control over their income, and therefore, a larger difference existed between taxpayers with and without contact. At lower levels of AGI, although significant, there was a much smaller difference between taxpayers with or without contact. This result indicates that taxpayers without contact have significant amounts of income not being disclosed, and highlights the differences between taxpayers with and without contact. It would seem that increasing the presence of an enforcement agency (e.g., via audits) at higher income levels would be beneficial.

Opportunity. Opportunity to avoid taxes could be evaluated in only two AGI stratas due to the AGI definition that was part of its makeup. The variable, not surprisingly, was significant at the .05 level in the AGI4 strata, and significant at the .10 level in AGI5 strata.

Level of Income (AGILN). The level of income variable was significant in four of the five AGI stratas (only in the third strata-AGI from $15,000 to $24,999 - was it not significant), indicating that as income level increased, the amount of unreported income increased. The stratification, however, did mitigate the effect of this variable in all but the lowest income strata, where it continued to be the dominant variable in the regression equation.

Occupational Categories. Several interesting findings come out of the AGI strata regressions. First, the professional occupational category was significant in only the highest AGI strata. This was not surprising since this category contained the majority of occupational codings in the strata (about 58 percent). What was surprising was the sign of the regression coefficient -- negative -- indicating less noncompliance when compared to all other occupational categories.

Second, the sales occupational group was significant and positively related to noncompliance at the .05 level in three stratas (AGI1, AGI3, and AGI4), and significant at the .10 level in the other two (AGI2 and AGI5). It appears from these results that noncompliance in this occupational group crosses all levels of income. Third, self-employed taxpayers (both the occupational and non-occupational variable) were positively related to noncompliance in two AGI stratas (AGI2 and AGI3). Although initially it might appear unusual that these variables were not significant in the higher AGI stratas, remember that these taxpayers have a great deal of control over the level of their income (i.e., they control both the receipt of income and related expenses). As a result, chances are they will attempt to smooth income across years, when

possible, and be more likely to claim deductions aggressively. As a result, net income (and AGI) will be lower.

Fourth, the skilled labor category, not previously significant in any regression equation, was significant and positively related to noncompliance in the second AGI strata. Finally, as expected, the retired/student occupational group was significant and positively related to noncompliance in the lowest AGI strata. In addition, this group was also significant at the .10 level, in the highest AGI strata, but negatively related to noncompliance.

Gender. At the .05 level, gender was only significant in the lowest AGI strata, where it was positively related to noncompliance. However, it was also significant at the .10 level in the highest AGI strata, and again positively related to noncompliance. Although not constant across these AGI stratas, this analysis appears to validate previous research-- males are less compliant than females.

Non-Filers in 1986. This variable which was intended to be a surrogate for an attitudinal variable in this study was significant in only the highest two AGI stratas (AGI4 and AGI5). In the highest AGI strata, the regression coefficient was almost three times the size of the coefficient in the second highest AGI strata. In both cases the coefficient was, as expected, positively related to noncompliance.

A couple of interesting observations can be made about the variable given the stratified regressions. First, based on its significance in only the higher AGI stratas, this variable supports the contention that in this study, income level and noncompliance are positively correlated. Second, this variable was not significant in the lower AGI stratas. Therefore, this stratified analysis corroborates the finding in the

second no contact data base (CONNCON2) where the regression coefficient for this variable increased (relative to the initial no contact data base - CONNCON) when the retired/student occupational group was dropped from the analysis.

At that time, it was hypothesized that the taxpayers in the retired/student group were different than higher income taxpayers as it related to continued compliance post-amnesty. Once these taxpayers filed during amnesty, the results indicated a higher chance level of compliance (i.e., keeping them in the system). It was conjectured that the taxpayers in the retired/student group may have had a different set of ethics and/or were fearful of the consequences if they returned to their pre-amnesty practices. For whatever reason, once they filed under amnesty, they have continued to file.

In summary, once taxpayers in lower income levels (and particularly within the retired/student occupational group) filed under amnesty, the results indicate that they have continued to file (i.e., it appears that one of the goals of amnesty -- adding taxpayers to the tax rolls -- may have "worked" for these taxpayers). On the other hand, the same cannot be said of taxpayers in higher income stratas.

CHAPTER 7

IMPLICATIONS OF FINDINGS AND EXTENSIONS OF THE RESEARCH EFFORT

7.1   Introduction

This research effort began with the objective of making contributions in several areas. First, this research was designed to increase our understanding of what factors are part of the noncompliance decision; second, it was designed to investigate characteristics of the amnesty participant in Michigan; and third, the analysis of the results were to be used to make recommendations about future enforcement efforts. The findings of this study as they relate to each of these areas are discussed below.

In addition, based on the results of this study, several extensions of this research effort are warranted. Although these extensions may not be feasible at this time, it is appropriate to discuss them briefly.

7.2   Implications of Findings

7.2.1   Academic Noncompliance Research

The implications of the findings of this study from an academic research standpoint must be viewed in light of the data examined. The data used in this study are from amnesty participants. As has been mentioned previously, this limits the findings from several perspectives.

First, amnesty participants are a subset of all tax evaders and delinquent taxpayers. Another group of tax evaders exists in the population; those who chose not to participate in amnesty. It is possible that the characteristics of these non-amnesty evaders are quite different from the amnesty participants who are part of the Michigan Amnesty Data Base (MADB).

215

Second, the information in the MADB does not necessarily include all the taxable income of amnesty taxpayers (i.e., these amnesty participants may have chosen to disclose only a portion of this income). It is possible, therefore, that the MADB may not be comprehensive with respect to data on every subject. Third, the data base includes only taxpayers from Michigan. Generalizability of research findings using this data to the national population is not warranted without further investigation and analysis. Finally, the data does not include any psychological or attitudinal variables related to the noncompliance decision.

On the other hand, the MADB does offer some significant advantages over the primary analytical data base that has been used in academic research to date, the Taxpayer Compliance Measurement Program (TCMP) data base. Specifically, the MADB includes information from taxpayers omitted from the TCMP (i.e., taxpayers who had not filed returns previously and taxpayers who had not made a full disclosure of income). Although not a perfect data base, the MADB offers an opportunity to explore the characteristics of amnesty participants. Specifically, this study offers insight into differences between amnesty participants who were merely delinquent in their filing (i.e., the majority of their tax liability had been remitted to the State of Michigan), and participants who paid in a substantial portion of their liability during amnesty.

The goal of academic research efforts in this area is to completely understand the economic, demographic, and attitudinal characteristics of tax evaders and their noncompliance decision process. Once this has been accomplished, a more complete modeling of the noncompliance decision is possible. Admittedly, this effort falls short of that goal. On the other hand, this study was not designed to achieve that objective.

Instead, it was hoped that this research would add to the knowledge currently in existence regarding the noncompliance decision. In Chapter 2, a reference was made to Denzin [1978] who said:

> I conclude that no single method will ever permit an investigator to develop causal propositions free of rival interpretations. . . multiple methods of observations must be employed. This is termed triangulation, and I now offer as a final methodological rule the principle that multiple methods must be used in every investigation, since no method is ever free of rival causal factors.

Given this perspective, and the limitations and advantages of the MADB discussed above, this study has accomplished its academic objectives.

Analysis of the Research Data Base. Specifically, this effort has confirmed the existence of certain economic and demographic factors in the noncompliance decision process. Although only briefly discussed here, these findings are discussed in greater detail in Chapter 6. A comparison of the results of this study's findings to that of other analytical studies can be found in Table 7-1. Table 7-1 is a presentation of the analytical studies portion of Table 2-2, revised to reflect the results of this study. In addition to identifying factors that are part of the noncompliance decision, Table 7-1 discloses that this study has provided the first analytical evidence for several significant variables (gender, opportunity, and family size).

Specifically, as to the analysis of the research data base, this study suggests that noncompliance increases as income increases, and is consistent with the findings of Mork [1975], Clotfelter [1983], and Witte and Woodbury [1985]. Taxpayers having some form of Treasury Department contact prior to amnesty (withheld taxes, estimated taxes, a W-2, or a letter from Treasury requesting information regarding a state tax return)

TABLE 7-1

COMPARISON OF RESULTS TO OTHER ANALYTICAL NONCOMPLIANCE STUDIES

ANALYTICAL STUDIES

Author/Date	Age	Gender (Fem)	Education	Income Level	Wth'hld Income Source	Occupation/Status	Compliant Peers	Complexity	Agency Contact	Sanctions	Probab. of Detect.	Tax Rates	Other Variables
Allingham & Sandmo, 1972				-						+	+	+	Religion
Groves, 1958					+								
Srinivasan, 1973											+	+,-	
Yitzhaki, 1974												0	
Mork, 1975				-	+								
Clotfelter, 1983	+,-			-	+			-				-	
Cox, 1984												0	
Cowell, 1985					+						+,-	+,-	+,-
Witte & Woodbury, 1985	+		+	+,-		+			+	+	+		
Madeo, Schepanski, & Uecker, 1985				+	+					+	+	0	Interactions of Variables
Young, 1988		-		+	+	+,-			+			0	Opportunity, Geographic location, Family size, Noncompliant attitude

+ Positively associated with compliance
- Negatively associated with compliance
0 Link to compliance is indeterminate

Multiple symbols indicate that the association with compliance differs for different segments of the taxpayer population.

had substantially less unreported income than those amnesty participants who had no contact prior to amnesty. Just the opposite was found among amnesty participants with the opportunity to evade taxes. The opportunity variable was created via a composite of occupation (self-employed, business, professional, or sales), an income level of $30,000 or more, and access to cash income sources; it had not been tested analytically prior to this study.

The occupations of amnesty participants were found to be a part of the decision process. Specifically, sales and self-employed taxpayers were more likely to be non-delinquent amnesty participants, while unskilled laborers were more likely to be merely delinquent in filing their tax returns (i.e., these individuals were more likely to have paid in most of their tax liability prior to amnesty). In addition, the special self-employed variable created (ignoring the occupational disclosure of the participant) was positively related to noncompliance, again indicating that these amnesty participants were more likely to be evaders rather than merely delinquent in filing returns.

This study determined that those amnesty participants who made a choice not to file a return in 1986 had more unreported income than amnesty participants who filed a return in 1986 (i.e., these taxpayers were more likely evaders than delinquent taxpayers). This would seem to indicate that the decision making process of evading taxes warrants further exploration.

Although I am unable to generalize geographic findings, the study results do support the contention that geographic location is a part of the noncompliance decision. The area indicated in the regression analysis (Ann Arbor) corresponds to a finding of Witte and Woodbury that

better educated areas with large student populations generally have low levels of compliance. Ann Arbor would certainly fit this description. The majority of studies (survey and experimental research) testing the compliance level of males versus females have found males less compliant. This analytical study supports the position that single males are less compliant then other taxpayers.

This study used exemptions as a surrogate for family size, and found that as family size increases, so does the likelihood of evasion (vs. delinquency of filing returns).

Analysis of the AGI Stratas. This study segmented the research data base into five AGI strata, and analyzed each. Although this type of stratification had been suggested as an interesting and worthy extension in prior studies, this study appears to be the first to have actually performed this type of analysis. Specifically, the regressions provide some insight into how the noncompliance decision may change across levels of income.

Contact was the only variable to appear in all of the five AGI strata regressions -- always with a negative regression coefficient. In addition, the size of the regression coefficient consistently increased across the strata. The relevant conclusion, therefore, is that those with contact were more likely to be delinquent amnesty participants (rather than tax evaders), and as income increases, those taxpayers who had no contact (and were more likely evaders) disclosed significantly more unreported income.

Opportunity to avoid taxes could be evaluated in only two AGI strata due to the AGI definition that was part of its makeup. The variable, not

surprisingly, was significant at the .05 level in the AGI4 strata, and significant at the .10 level in AGI5 strata.

The level of income variable was significant in four of the five AGI stratas (only in the third strata - AGI from $15,000 to $24,999 - was it not significant), indicating that as income level increased, the amount of unreported income increased. The stratification, however, did mitigate the effect of this variable in all but the lowest income strata, where it continued to be the dominant variable in the regression equation.

Several interesting findings come out of the AGI strata regressions related to occupations. First, the professional occupational category was significant in only the highest AGI strata. In that analysis, it carried a negative regression coefficient, indicating that this occupation was more likely to have been delinquent in their filing rather than evaders when compared to all other occupations. Second, the sales occupational group appeared positively (at the .10 level) in every AGI strata regression, indicating that the evasion tendencies of this occupational group crosses all levels of income. Third, self-employed taxpayers (both the occupational and non-occupational variable) were positively related to noncompliance in two AGI stratas (AGI2 and AGI3). It would appear that the control these individuals exhibit over receipts and disbursements (which provides an ability to manipulate income to a lower level) might explain their lack of significance in the higher AGI stratas. Fourth, the skilled labor category, not previously significant in any regression equation, was significant and positively related to noncompliance in the second AGI strata. Finally, as expected, the retired/student occupational group was significant and positively related

to noncompliance in the lowest AGI strata. This result indicates that these individuals were more likely to be evaders (rather than delinquent in filing returns) for low levels of income.

At the .05 level, gender was significant only in the lowest AGI strata, where it was positively related to noncompliance. However, it also was significant at the .10 level in the highest AGI strata, and again positively related to noncompliance. Although not constant across these AGI stratas, this analysis appears to validate previous research which found males to be less compliant than females.

The variable constructed to measure the effects of those amnesty participants who failed to file a return in 1986 was significant in only the highest two AGI stratas (AGI4 and AGI5). In the highest AGI strata, the regression coefficient was almost three times the size of the coefficient in the second highest AGI strata. The analysis indicates that these individuals were more likely to be evaders with higher levels of income. Given this finding, it would appear that once taxpayers in lower income levels (and particularly within the retired/student occupational group) filed under amnesty, they have continued to file (i.e., it appears that one of the goals of amnesty -- adding taxpayers to the tax rolls -- may have "worked" for these taxpayers). On the other hand, the same cannot be said of taxpayers in higher income stratas.

7.2.2   The Amnesty Participant in Michigan

It appears that the MADB is unequaled as a source of data on amnesty participation and effects. Most analyses of state tax amnesty programs published over the past few years rely on aggregated data provided by state revenue agencies (see, for example, Mikesell [1986]; Parle and Hirlinger [1986]). These analyses provide very little detail about the

various types of noncompliance uncovered during amnesty, or their relative importance.

Michigan appears to be the only state to have committed the resources necessary to compile detailed information on amnesty participants. The data contained in the MADB provides a unique opportunity to analyze amnesty participants in order to provide insight into some of their characteristics.

This information would be beneficial in conceptualizing and administering an amnesty program -- specifically by providing a profile of the typical amnesty filer. In addition, it could be used to target the marketing efforts of the program and design the enforcement efforts subsequent to amnesty.

Based on the descriptive analysis of these taxpayers, some basic conclusions can be reached. First, most of the participants had not previously filed returns (as contrasted with amnesty participants who filed amended returns). Nonfilers comprised almost 77 percent of the research data base. Second, most of the participants made relatively small tax payments. Although the average amnesty payment in the research data base (RDB) was $408.51, the median was $138.06, indicating half of the amnesty participants in the RDB paid less than that amount. Third, the majority of amnesty participants (about 71 percent) filed for only one year. This information can serve to indicate the general type of amnesty participants in Michigan.

The regression analyses indicate that certain of these participants were more likely to be evaders than merely delinquent in filing their returns. For example, the regression analysis of the RDB would indicate that the evaders among amnesty participants had one or more of the

following characteristics: a higher level of income, no previous Treasury Department contact, opportunity to evade, either self-employed or employed in sales, living in the Ann Arbor area, a male, a higher number of exemptions, and one who disregards the enforcement system. Each of the AGI stratas can be evaluated in a similar fashion.

7.2.3 Designing An Amnesty Program

As a precursor to discussing the structure and operation of an amnesty program, it is important to understand what type of taxpayers have come forward during the programs to date. This information is useful since it enables us to visualize the type of taxpayer likely to participate in an amnesty program. With this data in hand, it is possible to properly structure an amnesty/enhanced enforcement program. In addition, it may provide some insight into those taxpayers who are not participating in tax amnesties.

Some Demographical Information Regarding the Amnesty Participant. This study has determined that certain factors are part of the makeup of a typical amnesty participant. These factors were briefly discussed above. In addition to this information, the amnesty data provide additional insight into these participants.

From the information at hand, several other conclusions can be reached. First, the vast majority of participation is in the individual income tax. This result applies not only in Michigan (where almost 70 percent of the returns were filed by individuals), but in most other states that have run amnesty programs to date. Second, the majority of amnesty participants filed returns never filed before (vs. filing amended returns to correct deficiencies). In the RDB, almost 77 percent of the returns were non-amended. Finally, most of the amnesty participants made

relatively small tax payments. In the RDB, the median amnesty tax payment was $138.06, indicating that 50 percent of the amnesty participants disclosed $3,000 or less previously unreported income during amnesty. The mean amnesty tax payment was $408.51, which corresponds to about $8,900 of previously unreported income.

The Psychology of the Amnesty Participant. As previously mentioned, amnesty participants are a subset of all tax evaders. A question which must be addressed relates to their decision to disclose themselves during the amnesty program. It would appear that these individuals were motivated in some fashion to come forward during amnesty. For example, given the marketing of amnesty in Michigan ("get to us before we get to you") and the increases in penalties and interest post-amnesty, it would seem that the typical amnesty participant is risk-averse (feeling that there is a relatively high probability of detection post-amnesty), and with some feeling of guilt (a conscience that wants to rectify a situation). Any amnesty effort, therefore, should capitalize on these elements. Somewhat surprisingly, prior research would indicate that these same items are what motivates people to be in compliance. For some reason, it failed to work for these individuals until the amnesty program.

The Amnesty Program. Most states have several goals in mind when considering an amnesty program. The most obvious is collecting outstanding state revenues at limited expense. These revenues may include current assessments (i.e., accounts receivable) in addition to revenues which are uncollectible due to limited enforcement efforts. It is obvious from this study, that many amnesty participants were potentially known to the Department of Treasury prior to amnesty (e.g.,

withheld taxes, estimated taxes, W-2, etc.) but had not filed returns. These delinquent filers, usually making small tax payments, were a significant portion of amnesty participants. A second goal for the amnesty program is to promote improved compliance with the tax laws subsequent to amnesty. Finally, the amnesty program hopes to add taxpayers to the tax rolls who had managed to stay outside the tax system prior to amnesty.

Based on this study, and a tangential involvement in the Michigan amnesty program, several factors in the design of an amnesty seem to be important. These factors include public relations efforts, program publicity, scope of the program, and enforcement agency funding. Each of these is discussed briefly below.

Public Relations. "It's the message that's important" is a phrase applied in many situations, and one that applies to an amnesty program as well. How the amnesty program is communicated to the taxpaying population will contribute heavily to the program's success or failure. Failure, here, is not immediately measured in dollars, as any amnesty program is expected to accelerate revenue collections. If, however, taxpayers view amnesty as "unfair," future compliance may be impaired.

It is vital that citizens view amnesty as part of an overall enforcement effort designed to find noncompliant taxpayers. The marketing of the program must communicate that amnesty is the final opportunity to "wipe the slate clean." Amnesty should be viewed as the beginning of a new era in enforcement efforts -- efforts that include, for example, increased audit staffing, greater risk of audit selection, an active discovery unit designed to search for noncompliant taxpayers,

and a revised penalty and interest structure. In this way, amnesty is a public acknowledgement of a change in the rules.

In addition, it is important to communicate that amnesty participants have not benefitted financially from their previous noncompliance. Most amnesty programs require the payment of all taxes and related interest and waive related penalties. It is important that compliant taxpayers understand that the waiver of penalties is not a significant benefit for amnesty participants. In most cases of self-disclosure, an enforcement agency will waive all penalties in response to the taxpayer coming forward. As a result, there is very little difference (if any) between an amnesty program and normal enforcement policies in this regard.

Subsequent to amnesty, distribution of information regarding the amnesty and its participants is vital, as the enforcement agency applies this knowledge to its enforcement efforts. It is critical that the taxpaying population see evidence of an active effort to identify taxpayers who remained noncompliant.

Program Publicity. If a government intends to influence a large number of taxpayers, the effective marketing of the program is critical to success. Obviously, significant amounts of publicity will require considerable funding. However, most states who have run amnesties and subsequently evaluated the program have stated that additional funding should have been sought for effective media presentation. The most successful amnesties have relied on an extensive media effort, including press releases, public service spots, and significant paid media advertising. Without question, publicity is the largest fixed cost to be covered in the amnesty program. However, given the need to communicate

the change in enforcement policies properly, it is obviously a key factor in amnesty design.

Scope of the Program. Most states have run general amnesties rather than selective amnesties. Generally, the reasons in favor of running a general amnesty include the political environment, the potential for large revenue collections, and publicity costs being similar regardless of the size of the program. Given this background, several comments can be made based on this study.

Prior research has indicated that taxpayer psychology plays a key role in amnesty. Compliant taxpayers must view amnesty as part of a larger enforcement effort. Noncompliant taxpayers must view amnesty as a last chance to correct their evasion behavior. Since publicity is key to the amnesty program, enforcement agencies should take advantage of media coverage prior to amnesty.

Several opportunities exist for enforcement agencies. The establishment (or enlargement) of a discovery unit to identify tax evaders should precede the amnesty program. This unit could be used for a number of projects prior to amnesty, all of which would result in favorable publicity for enforcement prior to amnesty. The most visible would be an active identification program. Using agency and other government information, along with factors identified from this and other studies, potential evaders can be targeted and contacted prior to amnesty. For example, a matching program between all professions requiring licensure in the state and state income tax return files might yield nonfilers. This unit could also identify a key list of large tax evaders prior to amnesty. In Michigan, a "dirty dozen" list was created prior to amnesty, and the press informed of its existence. The

Department of Treasury indicated that they would be watching for these taxpayers to file for amnesty. If amnesty was not sought, they would prosecute them immediately after amnesty. Several of these individuals did apply for amnesty; those that did not were prosecuted within 60 days of the program's conclusion.

Since the descriptive analysis of the RDB indicated a significant number of small payments (over 50 percent less than $110), a reasonable question is how to handle these participants. For the most part, these participants were delinquent filers rather than tax evaders. A large portion of their tax liability was paid in prior to amnesty (via withholding or estimated payments). During amnesty, these individuals filed the return in question and paid the balance due. It would seem that an enforcement agency could capitalize on this by actively pursuing these individuals prior to amnesty, thus creating another publicity mechanism for the enhanced enforcement effort.

Retired taxpayers and students made up a large portion of the RDB. These taxpayers participated in amnesty for a variety of reasons, including disclosing evasion actions. However, this study concludes that these taxpayers were not more likely to be tax evaders than other occupational groups. Although some taxpayers in these occupational groups were evaders, it appears likely that many of these taxpayers may not have known there was a need to file. If so, taxpayer service programs must be evaluated to see if adequate assistance is being rendered. An evaluation program performed prior to amnesty with changes in the assistance programs can also be an effective publicity vehicle. Obviously, the filing process must also be evaluated for these taxpayers. It could be that returns and instructions are too complicated, and need

revision.   A pre-amnesty effort to assist these individuals in filing returns could be beneficial to these taxpayers and viewed positively by compliant taxpayers.

Alternatively, it has been argued to restrict amnesty to only small amounts of amnesty tax (e.g., less than $200). Given the level of effort required during an amnesty program, it has been argued that these small payments could be collected with little effort, thus decreasing the cost/benefit ratio and making amnesty more palatable to compliant taxpayers.   The rationale here is that this type of program could allocate the scarce resources of the enforcement agency to discovery efforts targeted at evaders.

Accessibility to the amnesty program also must be evaluated. Filing for amnesty must be as easy as possible.   The design of the amnesty application should only require necessary information to properly process the amnesty request (e.g., taxpayer identification, summary of returns filed, total remittance).

From an academic research standpoint, some information not otherwise available might be requested as part of the amnesty program.   For example, disclosures regarding age and education level of amnesty participants might be sought.   In addition, since taxpayer attitude plays a role in the noncompliance decision, follow-up interviews or surveys might be required (or agreed to if needed) as part of the amnesty application.   This requirement must be balanced with the anonymity status of most participants in amnesty programs.   Assurances would have to be made to participants to ensure good participation.   If, however, interviews or surveys could be sought, the acquired information would be immensely valuable in modeling the noncompliance decision.

Enforcement Agency Requirements. The amnesty program is only one part of a larger enforcement effort. The message communicated to compliant taxpayers is that subsequent to amnesty increased enforcement efforts will be used to identify tax evaders and delinquent nonfilers. As a result, increased funding for the enforcement agency is mandatory as part of the effort.

The creation of a discovery unit within the enforcement agency, increased staffing of the agency, computerization of enforcement efforts, and increased taxpayer services all will contribute to increased compliance. In addition, the imposition of a revised penalty and interest structure will provide the agency with the tools needed to properly enforce the tax laws.

What About a Second Amnesty Program? Given the above discussion, it would appear that such an opportunity is not feasible. Most states view amnesty as a one-time program since it is intended to be the key notification of a change in the compliance system. Second amnesties are viewed negatively because taxpayers will perceive a change in the compliance system, allowing for noncompliance until the next amnesty program.

However, a selective second amnesty might be feasible (and potentially beneficial) if restricted to certain types of evaders identified as a result of amnesty program data, and efforts of the discovery unit. For example, a certain class of taxpayers identified as noncompliant during the amnesty program or via discovery could be offered amnesty. In order to distinguish this selective amnesty from the general amnesty, the enforcement agency would need to aggressively support its position, relying on its analysis of the original amnesty data. In this

study, the Ann Arbor SMSA was identified as a noncompliant region. Prior to enhanced enforcement efforts, a general amnesty could be offered for taxpayers living in this SMSA. The additional information gathered from such a limited amnesty could be beneficial and might be applied to other regions in the state (e.g., regions with higher incomes, a college or university, and high-tech industries in the case of the Ann Arbor SMSA).

7.2.4   Implications for Enforcement Efforts

The regression results can be used to help in the shaping of the enforcement policies of the Michigan Department of Treasury (and could be used to support changes at the federal level). The regression results indicate that contact with the enforcement agency is a key compliance variable.   At higher levels of income, there is a great deal of difference between amnesty participants who were merely delinquent in filing their returns and amnesty participants who were evaders. Coupled with the fact that amnesty participants probably chose to disclose themselves because of fear of detection or guilty feelings, it would seem that the increased presence (or perceived presence) of the enforcement agency would do much to reduce noncompliance -- at least among those taxpayers who are likely to be amnesty participants.   Some suggested actions would be a greater audit and compliance awareness, increasing fines and penalties, and an effective public relations campaign that makes taxpayers aware of the likelihood and consequences of detection.

Given the fact that the retired/student group disclosed themselves in large numbers, but paid little in tax, it would seem that an education program related to return requirements would be beneficial.   It seems that these taxpayers may have evaded not because they wanted to, but because they were ignorant of the requirements.

Given the fact that three variables in the regression equation are related to cash income sources (opportunity to evade, self-employed, and sales occupations) it would seem that increased reporting requirements in this area would be beneficial (although it may be practically difficult). However, over the past few years, Congress has increased the reporting requirements in areas such as rental payments and cash transactions of $10,000 or more. An expansion of these requirements would be appropriate to evaluate.

7.3   Extensions of the Research

As described in Chapter 2, the first step in the process of modeling taxpayer noncompliance is the proper identification of the characteristics of the noncompliant taxpayer. Several extensions of this study seem warranted.

First, a sample of compliant taxpayers in Michigan could be drawn from Department of Treasury files. The same data analyzed in this study could be collected from these taxpayers with an analysis of differences between the compliant and noncompliant taxpayers performed. Second, the taxpayers in the Michigan Amnesty Data Base could be cross-matched to IRS tapes provided to Michigan each year identifying all taxpayers who filed a federal Form 1040 using a Michigan address. Taxpayers identified as in the Michigan Amnesty Data Base, but not appearing on the federal tapes could be separately analyzed as noncompliant federal taxpayers (since the IRS was unaware of their existence). The results of that analysis could also be compared to the findings from the present study.

Further extensions could be carried out along several fronts. First, other characteristics outside those examined in this study could be explored.

- An examination of taxpayers who filed amended returns during amnesty could be performed to determine the reason for the amendment (e.g., underreporting of income, too many exemptions, inappropriate deductions, IRS audit, etc.).

- Tax evasion behavior by taxpayers across different types of taxes could also be investigated. It would be interesting to know the degree to which individuals or businesses who had a delinquency in one tax (e.g., single business tax) also exhibited a pattern of tax delinquency in another type of tax (e.g., sales and use tax).

- Specific characteristics beyond those identified previously could be developed for business taxpayers, including the form of entity (e.g., corporation, partnership, S corporation, etc.) and business endeavor (e.g., manufacturing, sales, etc.).

Second, after characteristics of amnesty participants have been identified, it would then be possible to examine hypotheses about why taxpayers choose to participate in an amnesty and to study the implications of that taxpayer behavior for various tax enforcement strategies. Taxpayers who participate in amnesty are, of course, a subset of all delinquent taxpayers. While the Michigan Amnesty Data Base does not include those taxpayers who chose not to participate in the amnesty program, it may be possible to gain some information about those taxpayers indirectly by comparing the characteristics of amnesty participants to previously identified delinquent taxpayers. Two sources of data for such taxpayers are taxpayers with outstanding accounts receivable to the Michigan Department of Treasury prior to amnesty, and the IRS TCMP sample.

Third, it may be possible to develop a model of taxpayer choice concerning participation in a tax amnesty related to the economic models of tax evasion. As a general outline of the model, taxpayers will select

a pattern of tax behavior in order to gain the highest possible satisfaction or utility, given their perceptions about tax costs, enforcement, and penalties. A model of the amnesty tax decision is different from a general model of the decision to evade taxes because the amnesty is unanticipated and when it is proposed, the taxpayer has already made a decision about compliance.

Finally, it might be possible to generalize the findings of the amnesty taxpayer choice model to gain insight about tax evasion in general. However, such a generalization will be conceptually and statistically difficult.

This sort of disaggregated analysis will contribute to a better understanding of the likely factors associated with participation in a state tax amnesty, of its longer run revenue effects, and of the implications of a federal amnesty.

APPENDIX A

APPENDIX A

MICHIGAN TAX AMNESTY DATA BASE - INITIAL DATA COLLECTION

INDIVIDUAL AND INTANGIBLES TAX RETURNS

AUGUST 6, 1987

MICHIGAN TAX AMNESTY DATA BASE - INITIAL DATA COLLECTION

INDIVIDUAL AND INTANGIBLES TAX RETURNS

COMMON VARIABLES FOR ALL TAX RETURNS

_____Item/Variable (Columns)_____

1. Taxpayer ID Numbers:
   - Taxpayer ID (9)   ___ ___ ___ ___ ___ ___ ___ ___ ___
   - Other ID (9)   ___ ___ ___ ___ ___ ___ ___ ___ ___
2. Zip Code (5)   ___ ___ ___ ___ ___
3. Type of Tax (2)   ___ ___
4. Tax Return Year (2) ___ ___
5. Amnesty Tax Paid, As Audited (10)   ___ ___ ___ ___ ___ ___ ___ ___ · ___ ___
6. Interest Paid, As Audited (10)   ___ ___ ___ ___ ___ ___ ___ ___ · ___ ___

UNIQUE VARIABLES FOR INDIVIDUAL INCOME TAX RETURNS

VARIABLES TO BE COLLECTED FROM ALL RETURNS:

_____Item/Variable (Columns)_____

1. Occupation - Taxpayer (2)   _____
2. Occupation - Spouse (2)   _____
3. Residency (1)   ___
4. Filing Status (1)   ___
5. Sex (Single and MFS returns only) (1)   ___
6. Exemptions (2)   ___ ___
7. AGI (10)   ___ ___ , ___ ___ ___ , ___ ___ ___ · ___ ___
8. Additions (10)   ___ ___ , ___ ___ ___ , ___ ___ ___ · ___ ___
9. Subtractions (10)   ___ ___ , ___ ___ ___ , ___ ___ ___ · ___ ___
10. Taxable Income (10)   ___ ___ , ___ ___ ___ , ___ ___ ___ · ___ ___
11. Tax (10)   ___ ___ , ___ ___ ___ , ___ ___ ___ · ___ ___
12. Tax Withheld (10)   ___ ___ , ___ ___ ___ , ___ ___ ___ · ___ ___
13. Estimated Tax Payments (10) ___ ___ , ___ ___ ___ , ___ ___ ___ · ___ ___
14. Balance Due (10)   ___ ___ , ___ ___ ___ , ___ ___ ___ · ___ ___

<u>Item/Variable (Columns)</u>

15. Is a W-2 present? (1)   =

16. Does return contain a letter, explanation, etc. concerning amnesty? (1)   =

17. Is a Michigan Dept. of Treasury letter re: no state tax return filed attached? (1)   =

17a. Preparation of return.   =

Note: Collect the information for items 18 and 19 from all returns that are **NOT** "amended".

18. Additions to Income:

    Non-MI Muni Interest (10)   __ __ , __ __ __ , __ __ __ . __ __

    Capital Gains (10)   __ __ , __ __ __ , __ __ __ . __ __

    Losses from Other States (10)   __ __ , __ __ __ , __ __ __ . __ __

19. Subtractions from Income:

    US Government Interest (10)   __ __ , __ __ __ , __ __ __ . __ __

    Military Benefits (10)   __ __ , __ __ __ , __ __ __ . __ __

    Retirement Benefits (10)   __ __ , __ __ __ , __ __ __ . __ __

    Income from Other States (10)   __ __ , __ __ __ , __ __ __ . __ __

PROPERTY TAX CREDIT INFORMATION: The following information will be collected from MI-1040CR, if available.

20. Rent or Own Home (1)   =

21. Salaries, wages, tips, other comp. (10)   __ __ , __ __ __ , __ __ __ . __ __

22. All dividends and interest (10)   __ __ , __ __ __ , __ __ __ . __ __

23. Rent, royalty, and net business income (10)   __ __ , __ __ __ , __ __ __ . __ __

24. Annuity and pension benefits (10)   __ __ , __ __ __ , __ __ __ . __ __

25. Net farm income (10)   __ __ , __ __ __ , __ __ __ . __ __

26. All capital gains less capital losses (10)   __ __ , __ __ __ , __ __ __ . __ __

27. Alimony and other taxable income (10)   __ __ , __ __ __ , __ __ __ . __ __

    ■ Source(s) of other taxable income   _____

28. Child support (10)   __ __ , __ __ __ , __ __ __ . __ __

29. Worker's compensation, other benefits (10)   __ __ , __ __ __ , __ __ __ . __ __

30. Household income (10)   __ __ , __ __ __ , __ __ __ . __ __

31. Property taxes paid (10)   __ __ , __ __ __ , __ __ __ . __ __

32. Rent paid (10)   __ __ , __ __ __ , __ __ __ . __ __

VARIABLES TO BE COLLECTED ON AMENDED RETURNS:

_____**Item/Variable (Columns)**_____

Note: For the following items, detail the amounts ORIGINALLY REPORTED.

1. Residency (1)   ══

2. Filing Status (1)   ══

3. Exemptions (2)   ══ ══

4. AGI (10)   ══ ══ , ══ ══ ══ , ══ ══ ══ · ══ ══

5. Additions (10)   ══ ══ , ══ ══ ══ , ══ ══ ══ · ══ ══

6. Subtractions (10)   ══ ══ , ══ ══ ══ , ══ ══ ══ · ══ ══

7. Taxable Income (10)   ══ ══ , ══ ══ ══ , ══ ══ ══ · ══ ══

8. Tax Liability (10)   ══ ══ , ══ ══ ══ , ══ ══ ══ · ══ ══

9. Property Tax Credit (10)   ══ ══ , ══ ══ ══ , ══ ══ ══ · ══ ══

10. Tax Withheld (10)   ══ ══ , ══ ══ ══ , ══ ══ ══ · ══ ══

11. Estimated Tax Payments (10) ══ ══ , ══ ══ ══ , ══ ══ ══ · ══ ══

Note: Detail the following amounts.

12. Amount Paid With Original Return (10)   ══ ══ , ══ ══ ══ , ══ ══ ══ · ══ ══

13. Refund Shown on Original Return (10)   ══ ══ , ══ ══ ══ , ══ ══ ══ · ══ ══

14. Reason for Change in Number of Exemptions _____

_____

Note: The following information will be inferred from reading Part VII of MI-1040X.

15. AGI Error 1 (1)   ══

16. AGI Error 2 (1)   ══

17. Addition Error 1 (1)   ══

18. Addition Error 2 (1)   ══

19. Subtraction Error 1 (1)   ══

20. Subtraction Error 2 (1)   ══

21. Reason for Amended Return was IRS Audit (1)   ══

240

UNIQUE VARIABLES FOR INTANGIBLES TAX RETURNS

VARIABLES TO BE COLLECTED FROM ALL RETURNS:

__Item/Variable (Columns)__

1. Filing Status (1)   ___
2. Stocks and Bonds (10)   __ __ , __ __ __ , __ __ __ . __ __
3. Accounts and Notes (10)   __ __ , __ __ __ , __ __ __ . __ __
4. Mortgages and Land Contracts (10)   __ __ , __ __ __ , __ __ __ . __ __
5. Annuities (10)   __ __ , __ __ __ , __ __ __ . __ __
6. Statutory Deduction (5)   __ __ __ . __ __
7. Cash on Hand (10)   __ __ , __ __ __ , __ __ __ . __ __
8. Tax Due (10)   __ __ , __ __ __ , __ __ __ . __ __

__Note:__ If the return is an amended return, collect the following information from the original return.

9. Filing Status (1)   ___
10. Stocks and Bonds (10)   __ __ , __ __ __ , __ __ __ . __ __
11. Accounts and Notes (10)   __ __ , __ __ __ , __ __ __ . __ __
12. Mortgages and Land Contracts (10)   __ __ , __ __ __ , __ __ __ . __ __
13. Annuities (10)   __ __ , __ __ __ , __ __ __ . __ __
14. Statutory Deduction (5)   __ __ __ . __ __
15. Cash on Hand (10)   __ __ , __ __ __ , __ __ __ . __ __
16. Tax Due (10)   __ __ , __ __ __ , __ __ __ . __ __

MICHIGAN TAX AMNESTY DATA BASE

DATA COLLECTION PROCEDURES MEMORANDUM

INDIVIDUAL AND INTANGIBLES TAX RETURNS

The following information is to assist in the collection of data from the Michigan Tax Amnesty returns selected for analysis.

One data collection document (DCD) will be filled out for <u>each return</u> selected. As a result, there may be several collection documents for each taxpayer amnesty profile (computer generated printout).

The ultimate goal of this process is to collect data on a consistent basis. This will allow for a proper analysis of the data collected.

References within this memorandum are to pages of the DCD.

GENERAL PROCESS TO BE FOLLOWED

1. Remember that you will have a Data Collection Document (DCD) for each tax return. An Amnesty Taxpayer Profile may include more than one tax return. If so, some information you will be required to collect for the DCD may be repetitive across returns (e.g., Social Security number, zip code, etc.) but be careful, as even this information may change between returns.

2. **Section 1 of Page 1 of DCD.** The information under the category "Common Variables For All Tax Returns" will be collected from every return. This information will be drawn from the computer printout (Amnesty Taxpayer Profile) that surrounds an amnesty form and related returns.

3. **Balance of DCD.** Which remaining portion(s) of the DCD you use will be dependent on the type of tax form you are working with:

If tax form is:	Data Collection Process

   ◻ Form MI-1040   In general, you will be using pages 1 and 2 of the DCD.

   If the taxpayer has used a normal MI-1040 to file an amended return, you will use pages 1, 2, and 3 of the DCD (normally, the word "Amended" will be written across the top of Form MI-1040). Use "amended" information (i.e., the "correct" amounts) to fill out pages 1 and 2 of the DCD. Use "as originally filed" information to fill out page 3 of the DCD (if this information is not available, write "N/A" in each entry area on page 3 of the DCD).

   ◼ Form MI-1040X   Some taxpayers used Form MI-1040X (Amended Return) even though they were filing a return for the first time (i.e., they should not have used a MI-1040X).

   For our purposes, a "true" amended return will have some nonzero numbers in Column A of Parts II, III, and IV of the form.

   ◻ If you a return with some nonzero numbers in Column A, the process below applies.

   ◼ If not, the process for Form MI-1040 (above) applies.

   "True" Amended Return: In general, you will be using pages 1, 2, and 3 of the DCD.

   Pages 1 and 2 of the DCD: The information detailed "On This Return" in Part I of the form, or in Column C ("Correct Amount") in Parts II, III and IV of the form will be used to fill out pages 1 and 2 of the DCD. If a MI-1040 CR is attached, use the amended version to fill out the bottom of page 2. This information is the equivalent of the "final return" filed by the taxpayer.

   Page 3 of the DCD: Page 3 of the DCD is intended to capture information originally reported. The information detailed "On Original Return" in Part I of the form, or in Column A ("As Originally Reported") in Parts II, III, and IV of the form will be used to fill out page 3 of the DCD.

   ◼ Intangibles   Fill out page 4 of the DCD.

   If the return is an amended return, use section 1 for the "correct" amounts, and section 2 for the "as originally filed" amounts.

4. Upon completion of a DCD, place the tax return inside the DCD, and move on to the next return. Upon completion of all returns within a taxpayer profile, place DCD's and related returns inside the profile, and move on to the next profile.

INFORMATION RELATED TO PAGE 1:

Section 1: Common Variables For All Tax Returns

Items 1 through 6: These items are to be drawn from the amnesty taxpayer profile (computer printout).

Item 3: Code as follows based on type of tax:

Type of Tax	Code
IIT	02
INT	04

Items 5 and 6 are the amounts _after_ audit by Treasury personnel. Selection of data for coding should be as follows:

First Choice Written amounts on the "Audited" line of the profile under the "Tax" and "Interest" columns.

Second Choice Printed amounts on the "Claimed" line of the profile under the "Tax" and "Interest" columns.

Section 2: Unique Variables for Individual Income Tax Returns

In General: This information will generally be drawn from page 1 of Form MI-1040 or Form MI-1040X.

Items 1 through 5: This information will generally be found in Part I of the tax form.

Items 1 and 2: Print occupation listed in Part I of the tax form for both the taxpayer and spouse.

Item 3: For Form 1040X, code based on amended information ("On This Return").
Code as follows:

Resident	1
Nonresident	2
Part-Year Resident	3

Item 4: For Form 1040X, code based on amended information ("On This Return").
Code as follows:

Single	1
Married, Filing Joint	2
Married, Filing Separately	3

Item 5: **Collect information only from Single or Married, Filing Separately Returns.**
Code as follows:

Male	1
Female	2

Item 6: MI-1040: List total exemptions claimed.

MI-1040X: List total exemptions claimed, _as amended_ ("On This Return").

Items 7 through 14: This information will generally be found in Part II of the tax form.

For Form MI-1040X, collect information reported in **Column C** of the form.

INFORMATION RELATED TO PAGE 2:

Items 15 through 17a:

Item 15: Code as follows:

Yes	1
No	2

Line 16: If there is a letter, attachment, some other document concerning amnesty, or an explanation regarding amnesty on the return itself, code this request "yes."

Code as follows:

Yes	1
No	2

Item 17: Code as follows:

Yes	1
No	2

Item 17a: Based on an examination of the Declarations section of the tax form (MI-1040, Part X; MI-1040X, Part VIII), code as follows:

Paid preparer	1
Taxpayer	2

Items 18 and 19: These items are to be collected for all returns except Form MI-1040X's with some nonzero numbers in Column A of Parts II, III, or IV (i.e., these are "true" amended returns, which will be analyzed on page 3 of the DCD).

The information requested will appear on page 2 of Form MI-1040. If you are analyzing a MI-1040X with zeros in Column A, attempt to determine this information from the Explanation of Changes (Part VII) on page 2 of the form.

- If there is no entry on the appropriate line of the tax form, leave the DCD blank for that item.

- Not all items of additions and subtractions are requested. If an amount appears on a line of the tax form that is not requested, ignore it.

- Consult the various years' tax forms for assistance in selecting the correct data.

PROPERTY TAX CREDIT INFORMATION:

Items 20 through 32: These items are to be collected from Form MI-1040CR (Homestead Property Tax Credit) if attached to the return. If the form is not present, leave these items blank.

- Consult the various years' tax forms for assistance in selecting the correct data.

- Specific requests are as follows:

Item 20: Code as follows:

Rent Home	1
Own Home	2

Line 27: In addition to the numeric information requested, list sources and amounts of other taxable income in the space provided.

INFORMATION RELATED TO PAGE 3:

In General: Page 3 of the DCD is used for "true" amended returns. For our purposes, a "true" amended return will have some nonzero numbers in Column A of Parts II, III, and IV of the form.

This portion of the DCD is intended to capture information originally reported by the taxpayer(s). The information detailed "On Original Return" in Part I of the form, or in Column A ("As Originally Reported") in Parts II, III, and IV of the form will be used to fill out page 3 of the DCD.

If the taxpayer has used a normal MI-1040 to file an amended return (normally, the word "Amended" will be written across the top of Form MI-1040), use "as originally filed" information to fill out page 3 of the DCD (if this information is not available, write "N/A" in each entry area on page 3 of the DCD).

Items 1 through 11:

Item 1: Code based on original information ("On Original Return").
Code as follows:

Resident	1
Nonresident	2
Part-Year Resident	3

Item 2: Code based on original information ("On Original Return").
Code as follows:

Single	1
Married, Filing Joint	2
Married, Filing Separately	3

Item 3: List total exemptions claimed, "On Original Return".

Items 4 through 11: The information requested will appear in Column A ("As Originally Reported") in Parts II, III, and IV of the form.

■ Consult the sample MI-1040X for assistance in selecting the correct data.

Items 12 and 13: Detail these items from the appropriate line of the form.

Item 14: Write down any reason given by the taxpayer for a change in the number of dependents claimed. This information will be contained in Part VI of the form.

Items 15 through 21: The information requested must be inferred from reading Part VII of the form. Two errors may be coded for changes in each of the following categories:

Adjusted Gross Income
Additions
Subtractions

If more than two errors exist in one of these areas, code the two most significant errors on the DCD. Ignore any other errors.

Items 15 and 16: Code AGI errors as follows:

Wages, compensation, etc.	1
Interest and dividends	2
Rental, royalty, or net business income	3
Capital gains and losses	4
Other	5

INFORMATION RELATED TO PAGE 3 (CONTINUED):

Items 17 and 18:   Code "Addition" errors as follows:

Non-Michigan municipal interest	1
Capital gains	2
Losses from other states	3
Other	4

Items 19 and 20:   Code "Subtraction" errors as follows:

Income from US Government obligations	1
Military pay and benefits	2
Income from other states	3
Retirement benefits	4
Other	5

Item 21: Code as follows:

Yes	1
No	2

INFORMATION RELATED TO PAGE 4:

In General: Page 4 of the DCD is used to collect information from intangibles returns filed during amnesty.

Items 1 through 8: Items 1 through 8 of the DCD are for all intangibles returns filed during amnesty. If your return is an amended intangibles return, code the **amended** information here.

Line 1: Code as follows:

Individual	1
Fiduciary	2

Lines 2 through 8: Consult the sample returns for assistance in selecting the correct data.

Items 9 through 16: Items 9 through 16 of the DCD are for amended intangibles returns filed during amnesty. Code information **as originally filed** here. If this information is not available, write "N/A" in each entry area.

Line 1: Code as follows:

Individual	1
Fiduciary	2

Lines 2 through 8: Consult the sample returns for assistance in selecting the correct data.

MICHIGAN TAX AMNESTY DATA BASE

OCCUPATIONAL CATEGORIES

01. Sciences (Mathematics, Physical Sciences, Life Sciences, Social Sciences)
02. Architecture, Engineering, Surveying
03. Medicine and Health (Doctors, Dentists, Veterinarians, Nurses)
04. Education (Primary, Secondary, College)
05. Clergy (Priests, Ministers, Rabbis, Nuns)
06. Law (Lawyers, Judges)
07. Creative Arts (Writing, Art, Journalism, Acting)
08. Accounting/CPAs
09. Management/Executive
10. Professional Support Services
11. Clerical (Typing, Filing, Stenography, etc.)
12. Computer Related Fields
13. Sales
14. Food, Beverage, or Lodging
15. Building Trades
16. Protective Services
17. Building Services
18. Personal Services (Barber, Cosmetology, Apparel)
19. Agricultural, Fishery, and Forestry
20. Natural Resources Processing and Extraction
21. Printing and Paperworking
22. Machine Trades (Skilled Labor)
23. Fabrication of Products
24. Transportation (Motor Freight, Transportation Fields)
25. Packaging and Materials Handling
26. Amusement, Recreation, Radio and Television, Motion Picture
27. Self-Employed
28. Student
29. Housewife
30. Retired
31. Deceased
32. Laborer
33. Other

MICHIGAN TAX AMNESTY DATA BASE

OCCUPATIONAL CATEGORIES

Attempt to determine occupation class using the following detail.
If needed, consult a Form W-2, or the return itself for assistance

01. Sciences
    - Mathematics
    - Physical Sciences (Astronomy, Chemistry, Physics, Geology, Meteorology)
    - Life Sciences (Biology, Psychology)
    - Social Sciences (Economics, Political Science, History, Sociology)

02. Architecture, Engineering, Surveying
    - Drafting
    - Cartography

03. Medicine and Health
    - Doctors
    - Dentists
    - Veterinarians
    - Pharmacists
    - Nurses
    - Physicians Assistant

04. Education (Primary, Secondary, College)
    - Vocational Education
    - Librarians
    - Archivists
    - Museum Curators

05. Clergy (Priests, Ministers, Rabbis, Nuns, Gurus)

06. Law (Lawyers, Judges)

07. Creative Arts (Writing, Art, Journalism, Acting)
    - Editor
    - Photography
    - Commercial Artist
    - Fine Artists (Painter, Sculptor)
    - Musician
    - Dancer
    - Model

08. Accounting/CPAs
    - Auditor
    - Taxation
    - Controller
    - Treasurer
    - Budget/Cost Accounting
    - Bookkeeping

09. Management/Executive
    - Financial Analyst
    - Corporate Officer
    - **Comment:** If "Executive" can be categorized in one of the above 8 categories by examining other information in the return, classify the occupation in that category. Use this category as a last resort.

10. Professional Support Services
    ■Legal Assistant
    ■Dental Assistant
    ■Hospital Orderly

11. Clerical (Typing, Filing, Stenography, etc.)
    ■File Clerk
    ■Mail Room

12. Computer Related Fields
    ■Computer Programmer
    ■Systems Analyst
    ■Computer Operator

13. Sales
    ■Manufacturers Rep
    ■Sales Manager
    ■Insurance Agent
    ■Stock Broker

14. Food, Beverage, or Lodging
    ■Caterer
    ■Waiter/Waitress
    ■Maitre'd
    ■Bellman
    ■Concierge
    ■Housekeeper

15. Building Trades
    ■Carpentry
    ■Building
    ■Excavating
    ■Painting
    ■Plastering
    ■Welding
    ■Electrical
    ■Heating/Air Conditioning
    ■Plumber

16. Protective Services
    ■Police Officer
    ■Sheriff
    ■Fire Fighter
    ■Armed Forces
    ■Security Guards

17. Building Services
    ■Janitor
    ■Maintenance

18. Personal Services
    ■Barber
    ■Cosmetology
    ■Seamstress
    ■Tailor
    ■Dry Cleaner
    ■Launderer
    ■Masseurs
    ■Housekeeper

19. Agricultural, Fishery, and Forestry

20. Natural Resources Processing and Extraction
   - Paper
   - Petroleum, Coal, Natural Gas
   - Chemicals, Plastics, Rubber, Paint
   - Wood Products
   - Stone, Clay, Glass

21. Printing and Paperworking
   - Photocopying
   - Typesetter
   - Printing
   - Binding
   - Paper Cutting

22. Machine Trades (Skilled Labor)
   - Metalworking
   - Machinists
   - Tool and Die
   - Textiles
   - Mechanics

23. Fabrication of Products
   - Assembly Operations
   - Metal
   - Scientific
   - Medical
   - Photographic
   - Optical
   - Electrical Products and Equipment
   - Automobiles
   - Jeweler

24. Transportation (Motor Freight, Transportation Fields)
   - Truck Driver
   - Bus Driver
   - Railroad
   - Water Transportation
   - Pilot
   - Flight Attendant
   - Passenger Transportation

25. Packaging and Materials Handling
   - Packaging
   - Moving Goods
   - Storing Goods
   - Baggage Handling

26. Amusement and Recreation
   - Athlete
   - Sporting Activities
   - Theater Projectionist

27. Self-Employed
   - In addition to coding as self-employed, also determine a specific occupational category, if possible.

State of Michigan
Department of Treasury
Treasury Building, Lansing, Michigan 48922
Income Tax Division
Disclosure Unit

SS#

Information obtained from the Internal Revenue Service, under the authority
of Section 6103(d) of the Internal Revenue Code, indicates you mailed your
1983 Federal income tax return from a Michigan address. We have no record
of receiving your 1983 Michigan income tax return under the name or social
security number as shown above.

Michigan has a tax amnesty program from May 12 - June 30, 1986. Tax amnesty
is a one-time opportunity for delinquent taxpayers to pay back taxes
without fear of penalty or prosecution. Delinquent taxpayers may receive a
waiver of the 25% penalty by filing their return(s) and an amnesty form
with full payment of tax and interest before June 30. Visa or Master Card
will be accepted for payment.

Enclosed are Michigan income tax forms, an amnesty form and a questionnaire
designed to help us evaluate your filing status. Please read the
questionnaire carefully to determine Michigan filing requirements. If you
have income subject to Federal income tax but exempt from Michigan income
tax you are still required to file a Michigan return and report such income
as a deduction from adjusted gross income.

If you think you owe back taxes, please reply by filing a 1983 Michigan
income tax return, including remittance of tax due plus penalty of 25% and
interest at 3/4 of 1% per month from the due date of that return. If you
file an amnesty form and pay tax and interest due, penalty of 25% will be
waived. After amnesty, this rate of penalty will increase to 50% and
interest will be 1% above the prime rate on July 1, 1986.

If you filed a 1983 return or are not required to file, please respond with
the completed questionnaire and any necessary documents and we will correct
our records.

You must reply by June 30 or the tax, penalty and interest due based on
your Federal Return, will be assessed.

Please contact our nearest office or call: For amnesty 1-800-468-2937
(1-800-1-0-TAXES). For other information 1-800-292-6424.

PLEASE ATTACH YOUR REPLY TO THE ENCLOSED COPY OF THIS LETTER.

Enclosures

Michigan Department of Treasury

MICHIGAN INDIVIDUAL
INCOME TAX RETURN

1984

MI-1040

Office Use	
a.	b.
c.	
d.	

1. For 1984, or taxable year beginning _____, 1984, ending _____, 19 _____

This form is issued under the authority of the Income Tax Act of 1967, as amended. Filing is mandatory.
See filing requirements and penalty and interest statement in the MI-1040 Instruction Booklet.

PART I — IDENTIFICATION (Please type or print)

2 First name & initial (if joint return, use first names & initials of both) — Last name
Page 1, Item 5

3a Your social security number

Present home address (number and street or rural route)

3b. Your occupation
Page 1, Item 1

City, town or post office, and State — ZIP Code

3c Spouse's social security number

4a School district code (see Inst., pg. 8)

4b. School district name

3d. Spouse's occupation
Page 1, Item 2

5 RESIDENCY STATUS
a. [ ] Resident
b. [ ] Nonresident
c. [ ] Part-year resident—Dates:
Page 1, Item 3 Yr.
From _____
To _____

6 FILING STATUS
a. [ ] Single Page 1, Item 4
b. [ ] Married, filing jointly
c. [ ] Married, filing separately — Enter spouse's social security number on line 3c and enter spouse's name here:

7 STATE CAMPAIGN FUND
Do you (or your spouse if joint return) want $2 of your taxes to go to this fund? Your decision will not increase your tax or reduce your refund.

	YES	NO
a. You	[ ]	[ ]
b. Your Spouse	[ ]	[ ]

8. EXEMPTIONS
a. Your allowable Federal exemptions .... _____
b. Special exemption for hemiplegics, paraplegics and quadriplegics .... _____
c. TOTAL EXEMPTIONS **8c** Add lines 8(a) and 8(b) _____

PART II — INCOME AND ADJUSTMENTS

Page 1, Item 6

9. Adjusted gross income which should be reported on Federal form 1040, line 32; or 1040A, line 14 or 1040 EZ, line 3. (See page 7 of Instructions) .... **9** — Page 1, Item 7

10a. Additions to adjusted gross income (from line 42 of this form) .... 10a. Page 1, Item 8

10b. Enter amount of Federal employed married couple adjustment from Federal 1040, line 30 or Federal 1040A, line 12 .... 10b. _____

10c. Add lines 10a and 10b .... **10c** _____

11. Total. Add lines 9 and 10c .... 11. _____

12. Subtractions from adjusted gross income (from page 2, line 50 of this form) .... **12** — Page 1, Item 9

13. Income subject to tax. Subtract line 12 from line 11 .... 13. _____

14. Exemption allowance. Multiply $1500 by line 8c. Part-year and nonresidents enter line 65 .... **14** _____

15. Taxable income. Subtract line 14 from line 13 .... 15. — Page 1, Item 10

16. Tax. Multiply line 15 by 5.85% (.0585) .... 16. Page 1, Item 11

PART III — CREDITS (SEE INSTRUCTIONS — PAGES 7 THROUGH 9)
Page 2, Item 15

17. Income tax paid to Michigan cities
See page 7 of instructions .... **17** _____ 17a. _____

18. Public contributions. (See instr. page 8.) .... **18** _____ 18a. _____

19. Income tax paid to another state. (Attach copy of return) .... 19. _____ **19a** _____

20. Gleaning Credit. Attach form MI-1040CR-8 .... **20** _____

21. Total credits. Add lines 17a, 18a, 19a and 20 .... 21. _____

22. Income tax. Subtract line 21 from line 16. If line 21 is greater than line 16, enter "NONE" .... **22** _____

PART IV — PROPERTY TAX AND HOME HEATING CREDITS AND PAYMENTS

23. Property Tax Credit. Attach MI-1040CR-1, 2, 3 or 4 .... **23** _____

24. Home Heating Credit. Attach MI-1040CR-7 .... **24** _____

25. Farmland Preservation Credit. Attach MI-1040CR-5 .... **25** _____

26. Solar Energy Credit. Attach MI-1040CR-6 .... **26** _____

27. MICHIGAN TAX WITHHELD. ATTACH STATE COPY OF W-2 .... ▶ **27** _____ Page 1, Item 12

28. Michigan estimated tax payments .... **28** _____ Page 1, Item 13

29. 1983 overpayment credited to 1984 .... **29** _____

30. Add lines 23, 24, 25, 26, 27, 28 and 29 .... 30. _____

PART V — TAX DUE STATE OR OVERPAYMENTS AND CREDITS DUE YOU

31. If line 30 is less than line 22, enter BALANCE OF TAX DUE STATE, including interest _____ and penalty _____ if applicable. See Instructions, page 7 .... PAY ▶ **31** — Page 1, Item 14

32. If line 30 is greater than line 22, enter overpayment .... 32. _____

33. CONTRIBUTIONS: CHILDREN'S TRUST FUND — NONGAME WILDLIFE FUND
See instr. page 10 **33a** [ ] $4 [ ] $2 + **33b** _____ = 33. _____

34. Subtract line 33 from line 32 and enter difference .... 34. _____

35. Amount of line 34 to be credited to your 1985 ESTIMATED TAX .... **35** _____

36. Subtract line 35 from line 34. This is your REFUND .... **36** _____

PART VI — ADDITIONS TO INCOME

37.	Gross interest and dividends from obligations issued by states other than Michigan or their political subdivisions	37.	Page 2, Item 18
38.	Capital gains (from MI-1040D)	38.	Page 2, Item 18
39.	Other gains (from MI-4797)	39.	
40.	Losses attributable to other states (see instructions, page 10)	40.	Page 2, Item 18
41.	Other (see instructions, page 10). Describe: _____	41.	
42.	Total additions. Add lines 37 through 41. Enter here and on page 1, line 10a	42.	

PART VII — SUBTRACTIONS FROM INCOME

43.	Income from U.S. government bonds and other U.S. obligations included in line 9	43.	Page 2, Item 19
44.	Military pay or military retirement benefits from U.S. Armed Forces included in line 9 (attach W-2)	44.	Page 2, Item 19
45.	Capital gains (from MI-1040D)	45.	
46.	Other gains (from MI-4797)	46.	
47.	Income attributable to another state. Explain type and source. _____	47.	Page 2, Item 19
48.	Retirement or pension benefits included in line 9. See page 11 of instructions for limitations. Name of Payer: _____	48.	Page 2, Item 19
49a.	Social Security benefits from Federal 1040, line 21b	49a.	
49b.	Miscellaneous subtractions (see instructions page 11 for listing of eligible deductions.) Describe: _____	49b.	
50.	Total subtractions. Add lines 43 through 49. Enter here and on page 1, line 12	50.	

PART VIII — PART-YEAR AND NONRESIDENT INCOME ALLOCATION

(See page 12 of the instructions) INCOME	TOTAL INCOME COLUMN A		MICHIGAN INCOME COLUMN B		INCOME FROM OTHER STATES — COLUMN C
51. Wages, salaries, tips, etc.					
52. Interest and dividends _____ Exclusion _____ Balance					
53. Business or farm income					
54. Capital gains from Federal schedules					
55. Income reported on Federal Schedule E					
56. Other. (Describe) _____					
57. Gross income. Add lines 51 through 56					
ADJUSTMENTS TO INCOME					
58. Enter amount of Federal employed married couple adjustment from Federal 1040, line 30 or Federal 1040A, line 12					
59. Enter the total of all other adjustments on lines 24-30 of your Federal return. Describe: _____					
60. Add lines 58 and 59					
61. Subtract line 60 from line 57. The amount in col. A should equal line 9. Enter the amount in col. B on line 63. Enter amount in col. C on line 47 or, if a negative amount, enter as a positive amount on line 40					

PART IX — PART-YEAR AND NONRESIDENT EXEMPTION ALLOWANCE

If you received gross income not included in line 9, see
page 12 of the instructions before completing this schedule.

62.	Multiply number of exemptions on line 8c by $1,500.00	62.	
63.	Michigan source income: enter amount from line 61, Column B	63.	
64.	Divide line 63 by line 61, Column A, and enter percentage	64.	%
65.	Multiply line 62 by line 64. Enter here and on line 14	65.	

PART X — DECLARATIONS — Sign below. If filing jointly both husband and wife must sign.

This return is due April 15, 1985, or on the 15th day of the fourth month after the close of your tax year.

I declare under penalty of perjury that the information in this return, and attachments, is true, correct and complete.	I declare under penalty of perjury that this return is based on all information of which I have any knowledge.
Your Signature Date	Preparer's Signature, Business Name, Address and Identification Number
Spouse's Signature (if filing jointly, BOTH must sign even if only one had income)	Page 2, Item 17a

Mailing Instructions	PAY: Make checks payable to "State of Michigan". Record your social security number on the face of your check. Mail check and return to: Michigan Department of Treasury, Lansing, MI 48929.	REFUND OR CREDIT: Mail your return to: Michigan Department of Treasury, Lansing, MI 48956

Michigan Department of Treasury

MICHIGAN INDIVIDUAL
INCOME TAX RETURN

1983
MI-1040

Office Use	
a.	b.
c.	
d.	

1. For 1983, or taxable year beginning_____, 1983, ending_____, 19_____

PART I — IDENTIFICATION (Please type or print)

2 First name & Initial (if joint return, use first names & Initials of both)   Last name
Page 1, Item 5

3a Your social security number

Present home address (number and street or rural route)

3b. Your occupation
Page 1, Item 1

City, town or post office, and State   ZIP Code

3c Spouse's social security number

4a School district code (see Inst., pg. 7)   4b. School district name

3d. Spouse's occupation
Page 1, Item 2

5 RESIDENCY STATUS
a. ☐ Resident
b. ☐ Nonresident
c. ☐ Part-year resident—Dates:
Page 1, Item 3 Yr.
From ___|___|___
To ___|___|___

6 FILING STATUS
a. ☐ Single Page 1, Item 4
b. ☐ Married, filing jointly
c. ☐ Married, filing separately —
Enter spouse's social security number on line 3c and enter spouse's name here:

7 STATE CAMPAIGN FUND
Do you (or your spouse if joint return) want $2 of your taxes to go to this fund? (Your decision will not increase your tax or reduce your refund.)

	YES	NO
a. You	☐	☐
b. Your Spouse	☐	☐

8. EXEMPTIONS
a. Your allowable Federal exemptions...... _____
b. Special exemption for hemiplegics, paraplegics and quadriplegics .... _____
c. TOTAL EXEMPTIONS **8c** Add lines 8(a) and 8(b) _____
Page 1, Item 6

PART II — INCOME AND ADJUSTMENTS

9. Adjusted gross income which should be reported on Federal form 1040, line 32; or 1040A, line 14 or 1040 EZ, line 3 (Attach copies of any Federal schedules that indicate a loss or adjustment from gross income. See page 8 of Instructions)..................... **9** _____ Page 1, Item 7

10a. Additions to adjusted gross income (from line 42 of this form)...................10a. Page 1, Item 8

10b. Deduction for employed married couple from Federal 1040, line 29 or Federal 1040A, line 12 ....10b. _____

10c. Add lines 10a and 10b .... **10c** _____

11. Total. Add lines 9 and 10c ....11. _____

12. Subtractions from adjusted gross income (from page 2, line 50 of this form) .... **12** _____ Page 1, Item 9

13. Income subject to tax. Subtract line 12 from line 11 ....13. _____

14. Exemption allowance. Multiply $1500 by line 8c. Part-year and nonresidents enter line 65 .... **14** _____ Page 1, Item 10

15. Taxable income. Subtract line 14 from line 13 ....15. _____ Page 1, Item 11

16. Tax. Multiply line 15 by 6.35% (.0635)...............................16. _____

PART III — CREDITS (SEE INSTRUCTIONS — PAGES 8 THROUGH 10)
Page 2, Item 15

		AMOUNT PAID	CREDIT
17.	Income tax paid to Michigan cities. See page 8 of Instructions...................... **17** _____		17a. _____
18.	Contributions to Michigan colleges, universities, public libraries and public broadcasting stations .... **18** _____		18a. _____
19.	Income tax paid to another state (Attach copy of return) ..19. _____		**19a** _____
20.	Gleaning credit. Attach form MI-1040CR-8 .... **20**		

21. Total credits. Add lines 17a, 18a, 19a and 20....................21. _____

22. Income tax. Subtract line 21 from line 16. If line 21 is greater than line 16 enter "NONE" .... **22** _____

PART IV — PROPERTY TAX AND HOME HEATING CREDITS AND PAYMENTS

23. Property Tax Credit. Attach MI-1040CR-1, 2, 3 or 4 .... **23** _____
24. Home Heating Credit. Attach MI-1040CR-7 .... **24** _____
25. Farmland Preservation Credit. Attach MI-1040CR-5.......................... **25** _____
26. Solar Energy Credit. Attach MI-1040CR-6 .... **26** _____
27. Michigan tax withheld. Attach State copy of W-2.......................... **27** _____ Page 1, Item 12
28. Michigan estimated tax payments....................................... **28** _____ Page 1, Item 13
29. 1982 overpayment credited to 1983 .... **29** _____
30. Add lines 23, 24, 25, 26, 27, 28 and 29 ....30. _____

PART V — TAX DUE STATE OR OVERPAYMENTS AND CREDITS DUE YOU

31. If line 30 is less than line 22, enter BALANCE OF TAX DUE STATE, including interest_____and penalty_____if applicable. See instructions, pg. 7 ....PAY ▶ **31** _____ Page 1, Item 14

32. If line 30 is greater than line 22, enter overpayment ....32. _____

33. CHILDREN'S TRUST FUND and NONGAME WILDLIFE FUND contributions. See instr., page 10.
Children's Trust Fund: **33a** _____ ......Nongame Wildlife Fund: **33b** _____ 33. _____

34. Subtract line 33 from line 32 and enter difference ....34. _____

35. Amount of line 34 to be credited to your 1984 ESTIMATED TAX .... **35** _____

36. Subtact line 35 from line 34. This is your REFUND... **36** _____

ATTACH STATE COPY OF W-2 HERE

ENCLOSE CHECK. (DO NOT STAPLE)

255

PART VI   **ADDITIONS TO INCOME**

37.	Gross interest and dividends from obligations issued by states other than Michigan or their political subdivisions ....37.	Page 2, Item 10	
38.	Capital gains (from MI-1040D)..38.	Page 2, Item 10	
39.	Other gains (from MI-4797) ....39.		
40.	Losses attributable to other states (see Instructions, page 11) ....40.	Page 2, Item 10	
41.	Other (see Instructions, page 11) Describe:_____41.		
42.	Total additions. Add lines 37 through 41. Enter here and on page 1, line 10a ....42.		

PART VII   **SUBTRACTIONS FROM INCOME**

43.	Income from U.S. government bonds and other U.S. obligations included in line 9 ....43.	Page 2, Item 19	
44.	Military pay or military retirement benefits from U.S. Armed Forces included in line 9 (attach W-2) ....44.	Page 2, Item 19	
45.	Capital gains (from MI-1040D)..45.		
46.	Other gains (from MI-4797) ....46.		
47.	Income attributable to another state. Explain type and source._____47.	Page 2, Item 19	
48.	Retirement or pension benefits included in line 9. Name of Payer:_____48.	Page 2, Item 19	
49.	Miscellaneous subtractions, including deductible portion of state income tax refund, political contributions (max. = $50 single, $100 joint return), Michigan lottery winnings and other (see Instructions, page 12). Describe:_____49.		
50.	Total subtractions. Add lines 43 through 49. Enter here and on page 1, line 12 ....50.		

PART VIII   **PART-YEAR AND NONRESIDENT INCOME ALLOCATION**

(See page 14 of the Instructions) INCOME	TOTAL INCOME COLUMN A		MICHIGAN INCOME COLUMN B		INCOME FROM OTHER STATES — COLUMN C	
51. Wages, salaries, tips, etc.............................						
52. Interest and Dividends_____ Exclusion_____Balance						
53. Business or farm income						
54. Capital gains from Federal schedules...................						
55. Income reported on Federal Schedule E						
56. Other. (Describe)_____						
57. Gross income. Add lines 51 through 56						
ADJUSTMENTS TO INCOME						
58. Enter deduction for an employed married couple from your Federal 1040, line 29; or 1040A, line 12.................						
59. Enter the total of all other adjustments on lines 23-30 of your Federal return. Describe:_____						
60. Add lines 58 and 59						
61. Subtract line 60 from line 57. The amount in col. A should equal line 9. Enter the amount in col. B on line 63. Enter amount in col. C on line 47 or, if a negative amount, enter as a positive amount on line 40						

PART IX   **PART-YEAR AND NONRESIDENT EXEMPTION ALLOWANCE**

If you received gross income not included in line 9, see
page 13 of the Instructions before completing this schedule.

62.	Multiply number of exemptions on line 8c by $1,500.00...62.		
63.	Michigan source income: enter amount from line 61, Column B ....63.		
64.	Divide line 63 by line 61, Column A, and enter percentage ....64.		%
65.	Multiply line 62 by line 64. Enter here and on line 14 ....65.		

PART X   **DECLARATIONS — Sign below. If filing jointly both husband and wife must sign.**

This return is due April 15, 1984, or on the 15th day of the fourth month after the close of your tax year.

I declare under penalty of perjury that the information in this return, and attachments, is true, correct and complete.	*I declare under penalty of perjury that this return is based on all information of which I have any knowledge.*
Your Signature Date	Preparer's Signature, Business Name, Address and Identification Number Page 2, Item 17a
Spouse's Signature (if filing jointly, BOTH must sign even if only one had income)	

Mailing Instructions: PAY — Make checks payable to "State of Michigan". Record your social security number on the face of your check. Mail check and return to:
Michigan Department of Treasury, Lansing, MI 48929.
REFUND OR CREDIT — Mail your return to: Michigan Department of Treasury, Lansing, MI 48956.

Michigan Department of Treasury

MICHIGAN INDIVIDUAL
INCOME TAX RETURN

1982

MI-1040

Office Use	
a.	b.
c.	
d.	

1. For 1982, or taxable year beginning _____,1982, ending _____,19 _____

PART I — IDENTIFICATION *(Please type or print)*

First name & initial (if joint return, use first names & initials of both) — Last name

Page 1, Item 5

3a. Your social security number

Page 1, Item 1

Present home address (number and street or rural route)

3b. Your occupation

Page 1, Item 1

City, town or post office, and State — ZIP Code

3c. Spouse's social security number

School district code (see instr., pg 7)

4b. School district name

3d. Spouse's occupation

Page 1, Item 2

5. RESIDENCY STATUS
a. ☐ Resident
b. ☐ Nonresident
c. ☐ Part-year resident—Dates:

Page 1, Item 3

From ___|___|___
To ___|___|___

6. STATE CAMPAIGN FUND

Do you (or your spouse if joint return) want $2 of your taxes to go to this fund? (Your decision will not increase your tax or reduce your refund.)

	YES	NO
a. You	☐	☐
b. Your Spouse	☐	☐

7. FILING STATUS
a. ☐ Single   Page 1, Item 4
b. ☐ Married, filing jointly
c. ☐ Married, filing separately — Enter spouse's social security number on line 3c and enter spouse's name here:

_____

8. EXEMPTIONS
a. Your allowable
   Federal exemptions ....
b. Special exemption for hemiplegics, paraplegics and quadriplegics ....
c. TOTAL EXEMPTIONS
   Add lines 8(a) and 8(b) 8c

Page 1, Item 6

PART II — INCOME AND ADJUSTMENTS

9. Adjusted gross income which should be reported on Federal form 1040, line 32; or 1040A, line 12, or 1040EZ, line 3. (Attach copies of any Federal schedules that indicate a loss or adjustment from gross income. See page 8 of instructions) .... 9a ____ Page 1, Item 7

10a. Additions to adjusted gross income (from line 41 of this form) .... 10a. ____ Page 1, Item 8

10b. Deduction for employed married couple from Federal 1040, line 29 .... 10b. ____

10c. Add lines 10a and 10b .... 10c ____

11. Total. Add lines 9 and 10 .... 11. ____ Page 1, Item 9

12. Subtractions from adjusted gross income (from page 2, line 49 of this form) .... 12 ____

13. Income subject to tax. Subtract line 12 from line 11 .... 13. ____

14. Exemption allowance. Multiply $1500 by line 8. Part-year and nonresidents enter line 62 .... 14. ____ Page 1, Item 10

15. Taxable income. Subtract line 14 from line 13 .... 15. ____ Page 1, Item 11

16. Tax. Multiply line 15 by 5.1% (.051) .... 16. ____

PART III — CREDITS (SEE INSTRUCTIONS — PAGES 8 THROUGH 10)

Page 2, Item 15

	AMOUNT PAID	CREDIT

17. Income tax paid to Michigan cities .... 17 ____ 17a ____

18. Contributions to Michigan colleges, universities, public libraries and public broadcasting stations ...... 18 ____ 18a ____

19. Income tax paid to another state (attach copy of return) .... 19. ____ 19a ____

20. Gleaning credit. Attach form MI-1040CR-8 .... 20 ____

21. Total credits. Add lines 17a, 18a, 19a and 20 .... 21. ____

22. Income tax. Subtract line 21 from line 16. If line 21 is greater than line 16 enter "NONE" .... 22 ____

PART IV — PROPERTY TAX AND HOME HEATING CREDITS AND PAYMENTS

23. Property Tax Credit. Attach MI-1040CR-1, 2, 3, or 4 .... 23 ____

24. Home Heating Credit. Attach MI-1040CR-7 .... 24 ____

25. Farmland Preservation or Solar Energy Credit. Attach MI-1040CR-5 or 6 .... 25 ____ Page 1, Item 12

26. Michigan tax withheld. Attach State copy of W-2 .... 26 ____ Page 1, Item 13

27. Michigan estimated tax payments .... 27 ____

28. 1981 overpayment credited to 1982 .... 28 ____

29. Add lines 23, 24, 25, 26, 27 and 28 .... 29. ____

PART V — TAX DUE STATE OR OVERPAYMENTS AND CREDITS DUE YOU

30. If line 29 is less than line 22, enter BALANCE OF TAX DUE STATE, including interest _____ and penalty _____ If applicable. See instructions, pg. 7 .... PAY ▶ 30 ____ Page 1, Item 14

31. If line 29 is greater than line 22, enter overpayment .... 31. ____

32. CHILDREN'S TRUST FUND. You (and your spouse if a joint return) may each donate $2 of line 31 to this fund. Check donation box and enter amount at right .... ☐ $0   ☐ $2   ☐ $4 32 ____

33. Subtract line 32 from line 31 and enter difference .... 33. ____

34. Amount of line 33 to be credited to your 1983 ESTIMATED TAX .... 34 ____

35. Subtract line 34 from line 33. This is your REFUND .... 35 ____

ATTACH STATE COPY OF W-2 HERE — ATTACH CHECK OR MONEY ORDER HERE

257

PAGE 2, MI-1040

PART VI — ADDITIONS TO INCOME

36. Gross interest and dividends from obligations issued by states other than Michigan or their political subdivisions	36. _Page 2, Item 18_
37. Capital gains (from MI-1040D)	37. _Page 2, Item 18_
38. Other gains (from MI-4797)	38.
39. Losses attributable to other states (see instructions, page 11)	39. _Page 2, Item 18_
40. Other (see instructions, page 11) Describe: _____	40.
41. Total additions. Add lines 36 through 40. Enter here and on page 1, line 10a	41.

PART VII — SUBTRACTIONS FROM INCOME

42. Income from U.S. government bonds and other U.S. obligations included in line 9	42. _Page 2, Item 19_
43. Military pay or military retirement benefits from U.S. Armed Forces included in line 9 (attach W-2)	43. _Page 2, Item 19_
44. Capital gains (from MI-1040D)	44.
45. Other gains (from MI-4797)	45.
46. Income attributable to another state. Explain type and source. _____	46. _Page 2, Item 19_
47. Retirement or pension benefits included in line 9. Name of Payer: _____	47. _Page 2, Item 19_
48. Miscellaneous subtractions, including deductible portion of state income tax refund, political contributions (max. = $50 single, $100 joint return), Michigan lottery winnings and other (see instructions, page 12). Describe: _____	48.
49. Total subtractions. Add lines 42 through 48. Enter here and on page 1, line 12	49.

PART VIII — PART-YEAR AND NONRESIDENT INCOME ALLOCATION

(See page 12 of the instructions) INCOME	TOTAL INCOME COLUMN A		MICHIGAN INCOME COLUMN B		INCOME FROM OTHER STATES — COLUMN C
50. Wages, salaries, tips, etc.					
51. Interest and Dividends _____ Exclusion _____ Balance					
52. Business or farm income					
53. Capital gains from Federal schedules					
54. Income reported on Federal Schedule E					
55. Other. (Describe) _____					
56. Gross income. Add lines 50 thru 55					
ADJUSTMENTS TO INCOME					
57. Enter total adjustments claimed on line 31 of your Federal income tax return. Describe. _____					
58. Subtract line 57 from line 56. Amount in Column A should agree with line 9. Enter amount in Column B on line 60. Enter amount in Column C on line 46, or if negative amount, enter on line 39					

PART IX — PART-YEAR AND NONRESIDENT EXEMPTION ALLOWANCE

If you received gross income not included in line 9,
see page 13 of the instructions before completing this schedule.

59. Multiply number of exemptions on line 8c by $1,500.00	59.
60. Michigan source income: enter amount from line 58, Column B	60.
61. Divide line 60 by line 58, Column A, and enter percentage	61. ___ %
62. Multiply line 59 by line 61. Enter here and on line 14.	62.

PART X — DECLARATIONS — Sign below. If filing jointly both husband and wife must sign.

This return is due April 15, 1983, or on the 15th day of the fourth month after the close of your tax year.

I declare under penalty of perjury that the information in this return, and attachments, is true, correct and complete.	I declare under penalty of perjury that this return is based on all information of which I have any knowledge.
Your Signature Date	Preparer's Signature, Business Name, Address and Identification Number
Spouse's Signature (if filing jointly, BOTH must sign even if only one had income)	Page 2, Item 17a

Mailing Instructions: PAY — Make checks payable to "State of Michigan". Record your social security number on the face of your check. Mail check and return to: Michigan Department of Treasury, Lansing, MI 48929.
REFUND OR CREDIT — Mail your return to: Michigan Department of Treasury, Lansing, MI 48956.

Michigan Department of Treasury

**MICHIGAN INDIVIDUAL
INCOME TAX RETURN**

1981
MI-1040

Office Use

	b.
c.	
d.	

1. For 1981, or taxable year beginning _____ , 1981, ending _____ , 19 ___

PART I IDENTIFICATION *(Please type or print)*

First name & initial (if joint return, use first names & initials of both) Last name	Your social security number
Page 1, Item 5	
Present home address (number and street or rural route)	3b. Your occupation Page 1, Item 1
City, town or post office, and State ZIP Code	Spouse's social security number
School district code (see instr., pg. 7) 4b. School district name	3d. Spouse's occupation Page 1, Item 2

RESIDENCY STATUS
a. ☐ Resident
b. ☐ Nonresident
c. ☐ Part-year resident—Dates:
Page 1, Item 3
From _____|____|____
To _____|____|____

STATE CAMPAIGN FUND
Do you (or your spouse if joint return) want $2 of your taxes to go to this fund? (Your decision will not increase your tax or reduce your refund.)

	YES	NO
a. You	☐	☐
b. Your Spouse	☐	☐

FILING STATUS Page 1, Item 4
a. ☐ Single
b. ☐ Married, filing jointly
c. ☐ Married, filing separately — Enter spouse's social security number on line 3c and enter spouse's name here:

_____

8. EXEMPTIONS
a. Your allowable Federal exemptions ...... _____
b. Special exemption for hemiplegics, paraplegics and quadriplegics .... _____
c. TOTAL EXEMPTIONS Add lines 8(a) and 8(b) _____
Page 1, Item 6

PART II INCOME AND ADJUSTMENTS

9. Adjusted gross income which should be reported on Federal Form 1040, line 31, or 1040A, line 10 (Attach copies of any Federal schedules that indicate a loss or adjustment from gross income. See page 7 of Instructions) .... ___   Page 1, Item 7

10. Additions to adjusted gross income (from page 2, line 38 of this form) .... ___   Page 1, Item 8

11. Total. Add lines 9 and 10 .... 11. _____

12. Subtractions from adjusted gross income (from page 2, line 46 of this form) .... ___   Page 1, Item 9

13. Income subject to tax. Subtract line 12 from line 11 .... 13. _____

14. Exemption allowance. Multiply $1500 by line 8. Part-year and nonresidents enter line 59 .... ___

15. Taxable income. Subtract line 14 from line 13 .... 15. _____   Page 1, Item 10

16. Tax. Multiply line 15 by 4.6% (.046) .... 16. _____   Page 1, Item 11

PART III CREDITS (SEE INSTRUCTIONS — PAGES 8 THROUGH 10)

Page 2, Item 15

AMOUNT PAID   CREDIT

17. Income tax paid to Michigan cities .... ___ _____ 17a. _____

18. Contributions to Michigan colleges, universities, public libraries and public broadcasting stations ... ___ _____ 18a. _____

19. Income tax paid to another state (attach copy of return) .... 19. _____ ___

20. Total credits. Add lines 17a, 18a and 19a .... 20. _____

21. Income tax. Subtract line 20 from line 16. If line 20 is greater than line 16 enter "NONE" .... ___ _____

PART IV PROPERTY TAX AND HOME HEATING CREDITS AND PAYMENTS

22. Property Tax Credit. Attach MI-1040CR-1, 2, 3, or 4 .... ___ _____

23. Home Heating Credit. Attach MI-1040CR-7 .... ___ _____

24. Farmland Preservation or Solar Energy Credit. Attach MI-1040CR-5 or 6 ... ___ _____

25. Michigan tax withheld. Attach State copy of W-2 .... ___   Page 1, Item 12

26. Michigan estimated tax payments .... ___   Page 1, Item 13

27. 1980 overpayment credited to 1981 .... ___ _____

28. Add lines 22, 23, 24, 25, 26 and 27 .... 28. _____

PART V TAX DUE STATE OR OVERPAYMENTS AND CREDITS DUE YOU

29. If line 28 is less than line 21, enter BALANCE OF TAX DUE STATE, including interest _____ and penalty _____ , if applicable (see instructions p. 6) .... PAY ▶ ___   Page 1, Item 14

30. If line 28 is greater than line 21, enter BALANCE DUE YOU .... 30. _____

31. Amount of line 30 to be PAID TO YOU .... ▶ ___

32. Amount of line 30 to be credited to 1982 ESTIMATED TAX .... ___ _____

(OVER)

Left margin (vertical): ATTACH STATE COPY OF W-2 HERE ▶ ATTACH CHECK OR MONEY ORDER HERE ▶

PAGE 2, MI-1040

PART VI — ADDITIONS TO INCOME

33. Gross interest and dividends from obligations issued by states
    other than Michigan or their political subdivisions .... 33. _Page 2, Item 18_
34. Capital gains (from MI-1040D) .... 34. _Page 2, Item 18_
35. Other gains (from MI-4797) .... 35.
36. Losses attributable to other states (see Instructions, page 10) .... 36. _Page 2, Item 18_
37. Other (see Instructions, page 11) Describe: _____ 37.
38. Total additions. Add lines 33 through 37. Enter here and on page 1, line 10 ..... 38.

PART VII — SUBTRACTIONS FROM INCOME

39. Income from U.S. government bonds and other U.S. obligations included in line 9 .... 39. _Page 2, Item 19_
40. Military pay or military retirement benefits from U.S. Armed Forces included in line 9 (attach W-2) . 40. _Page 2, Item 19_
41. Capital gains (from MI-1040D) .... 41.
42. Other gains (from MI-4797) .... 42.
43. Income attributable to another state. Explain type and source. _____ 43. _Page 2, Item 19_
44. Retirement or pension benefits included in line 9. Name of Payer: _____ 44. _Page 2, Item 19_
45. Miscellaneous subtractions, including deductible portion of state income tax refund,
    political contributions (max. = $50 single, $100 joint return), Michigan lottery winnings and other
    (see Instructions, page 12). Describe: _____ 45.
46. Total subtractions. Add lines 39 through 45. Enter here and on page 1, line 12 .... 46.

PART VIII — PART-YEAR AND NONRESIDENT INCOME ALLOCATION

(See page 12 of the Instructions) INCOME	TOTAL INCOME COLUMN A		MICHIGAN INCOME COLUMN B		INCOME FROM OTHER STATES — COLUMN C	
47. Wages, salaries, tips, etc.						
48. Interest and Dividends _____						
· Exclusion _____ Balance ., ...						
49. Business or farm income						
50. Capital gains, from Federal schedules						
51. Income reported on Federal Schedule E						
52. Other. (Describe) _____						
53. Gross income. Add lines 47 thru 52						
ADJUSTMENTS TO INCOME						
54. Enter total adjustments claimed on line 30 of your Federal income tax return. Describe. _____						
55. Subtract line 54 from line 53. Amount in Column A should agree with line 9. Enter amount in Column B on line 57. Enter amount in Column C on line 43, or if negative amount, enter on line 36						

PART IX — PART-YEAR AND NONRESIDENT EXEMPTION ALLOWANCE

If you received gross income not included in line 9,
see page 13 of the instructions before completing this schedule.
56. Multiply number of exemptions on line 8 by $1,500.00 .... 56.
57. Michigan source income: enter amount from line 55, Column B .... 57.
58. Divide line 57 by line 55, Column A, and enter percentage .... 58. _____ %
59. Multiply line 56 by line 58. Enter here and on line 14. .... 59.

PART X — DECLARATIONS — Sign below. If filing jointly both husband and wife must sign.

This return is due April 15, 1982, or on the 15th day of the fourth month after the close of your tax year.

I declare under penalty of perjury that the information in this return, and attachments, is true, correct and complete.	I declare under penalty of perjury that this return is based on all information of which I have any knowledge.
Your Signature Date	Preparer's Signature, Business Name, Address and Identification Number
Spouse's Signature (if filing jointly, BOTH must sign even if only one had income) ▶	Page 2, Item 17a

Mailing Instructions: PAY — Make checks payable to "State of Michigan". Record your social security number on the
face of your check. Mail check and return to:
Michigan Department of Treasury, Lansing, MI 48929.
REFUND OR CREDIT — Mail your return to: Michigan Department of Treasury, Lansing, MI 48956.

Michigan Department of Treasury

MICHIGAN INDIVIDUAL
INCOME TAX RETURN MI-1040

1980

Office Use

a	b.
c	
d	

READ ALL INSTRUCTIONS AS YOU COMPLETE THIS FORM

1 For 1980, or taxable year beginning _____ , 1980, ending _____ , 19 ____.

PART I IDENTIFICATION (Please type or print)

2 First name & initial (if joint return use first names & initials of both)   Last name

Page 1, Item 5

3a Your social security number

Present home address (number and street or rural route)

3b Your occupation

Page 1, Item 1

City town or post office and State   ZIP Code

3c Spouse's social security number

4a School district code (see inste, pg 8)   4b School district name

3d Spouse's occupation

Page 1, Item 2

5 RESIDENCY STATUS
a [ ] Resident
b [ ] Nonresident
c [ ] Part-year resident - Dates

Page 1, Item 3

From __ 1 __ 1 _____

To __ 1 __ 1 _____

6 STATE CAMPAIGN FUND

Do you (or your spouse if joint return) want $2 of your taxes to go to this fund? Your decision will not increase your tax or reduce your refund

	YES	NO
a You	[ ]	[ ]
b Your Spouse	[ ]	[ ]

7 FILING STATUS
a [ ] Single   Page 1, Item 4
b [ ] Married filing jointly
c [ ] Married, filing separately -- Enter spouse's social security number on line 3c and enter spouse's name here

8 EXEMPTIONS
a Your allowable
Federal exemptions _____
b Special exemption for hemiplegics, paraplegics and quadriplegics _____
c TOTAL EXEMPTIONS
Add lines 8(a) and 8(b) 8 _____

Page 1, Item 6

PART II INCOME AND ADJUSTMENTS

9. Adjusted gross income which should be reported on Federal Form 1040, line 31, or 1040A, line 11 (Attach copies of any Federal schedules that indicate a loss or adjustment from gross income. See page 8 of instructions) .... 9 ____   Page 1, Item 7

10. Additions to adjusted gross income (from page 2, line 38 of this form) .... 10 ____   Page 1, Item 8

11. Total Add lines 9 and 10 .... 11 ____

12. Subtractions from adjusted gross income (from page 2, line 46 of this form) .... 12 ____   Page 1, Item 9

13. Income subject to tax Subtract line 12 from line 11 .... 13 ____

14. Exemption allowance. Multiply $1500 by line 8. Part-year and nonresidents enter line 60 .... 14 ____   Page 1, Item 10

15. Taxable income Subtract line 14 from line 13 .... 15 ____

16. Tax Multiply line 15 by 4 6% (046) .... 16 ____   Page 1, Item 11

PART III CREDITS (SEE INSTRUCTIONS — PAGES 8 THROUGH 10)

Page 2, Item 15

	AMOUNT PAID	CREDIT
17. Income tax paid to Michigan cities .... 17 ____		17a ____
18. Contributions to Michigan colleges, universities, public libraries and public broadcasting stations ...... 18 ____		18a ____
19 Income tax paid to another state (attach copy of return) 19 ____		19a ____

20 Total credits Add lines 17a, 18a and 19a .... 20 ____

21 Income tax Subtract line 20 from line 16 If line 20 is greater than line 16 enter "NONE" .... 21 ____

PART IV PROPERTY TAX AND HOME HEATING CREDITS AND PAYMENTS

22. Property Tax Credit. Attach MI-1040CR-1, 2, 3, or 4 .... 22 ____

23. Home Heating Credit. Attach MI-1040CR-7 .... 23 ____

24. Farmland Preservation or Solar Energy Credit. Attach MI-1040CR-5 or 6 . 24 ____

25. Michigan tax withheld. Attach State copy of W-2 .... 25 ____   Page 1, Item 12

26. Michigan estimated tax payments .... 26 ____   Page 1, Item 13

27. 1979 overpayment credited to 1980 .... 27 ____

28. Add lines 22, 23, 24, 25, 26 and 27 .... 28. ____

PART V TAX DUE STATE OR OVERPAYMENTS AND CREDITS DUE YOU

29. If line 28 is less than line 21, enter BALANCE OF TAX DUE STATE, including interest _____ and penalty ____ , if applicable (see instructions p.7) .... PAY► 29 ____   Page 1, Item 14

30. If line 28 is greater than line 21, enter BALANCE DUE YOU .... 30. ____

31. Amount of line 30 to be PAID TO YOU .... ► 31 ____

32. Amount of line 30 to be credited to 1981 ESTIMATED TAX .... ► 32 ____

(OVER)

PAGE 2, MI-1040

PART VI ADDITIONS TO INCOME

33 Gross interest and dividends from obligations issued by states other than Michigan or their political subdivisions	33.	Page 2, Item 18
34 Capital gains (from MI-1040D)	34.	Page 2, Item 18
35 Other gains (from MI-4797)	35.	
36 Losses attributable to other states (see instructions, page 11)	36.	Page 2, Item 18
37 Other (see instructions, page 11) Describe	37.	
38 Total additions. Add lines 33 through 37 Enter here and on page 1, line 10	38.	

PART VII SUBTRACTIONS FROM INCOME

39 Income from U.S. government bonds and other U.S. obligations included in line 9	39.	Page 2, Item 19
40 Military pay or military retirement benefits from U.S. Armed Forces included in line 9 (attach W-2)	40.	Page 2, Item 19
41 Capital gains (from MI-1040D)	41.	
42 Other gains (from MI-4797)	42.	
43 Income attributable to another state. Explain type and source	43.	Page 2, Item 19
44 Retirement or pension benefits included in line 9. Name of Payer:	44.	Page 2, Item 19
45 Other (see instructions, page 11). Describe:	45.	
46 Total subtractions. Add lines 39 through 45. Enter here and on page 1, line 12	46.	

PART VIII PART-YEAR AND NONRESIDENT INCOME ALLOCATION

(See page 12 of the instructions) INCOME	TOTAL INCOME COLUMN A	MICHIGAN INCOME COLUMN B	INCOME FROM OTHER STATES — COLUMN C
47. Wages, salaries, tips, etc			
48. Dividends ____ Exclusion ____ Balance			
49. Interest			
50. Business or farm income			
51. Capital gains, from Federal schedules			
52. Income reported on Federal Schedule E			
53. Other. (Describe)			
54. Gross income Add lines 47 thru 53			
ADJUSTMENTS TO INCOME			
55. Enter total adjustments claimed on line 30 of your Federal income tax return. Describe.			
56 Subtract line 55 from line 54. Amount in Column A should agree with line 9 Enter amount in Column B on line 58. Enter amount in Column C on line 43, or if negative amount, enter on line 36			

PART IX PART-YEAR AND NONRESIDENT EXEMPTION ALLOWANCE

If you received gross income not included in line 9, or income that can be deducted on lines 39 and 40, see page 13 of the instructions before completing this schedule.

57. Multiply number of exemptions on line 8 by $1,500.00	57.	
58. Michigan source income: enter amount from line 56, Column B	58.	
59. Divide line 58 by line 56, Column A, and enter percentage	59.	%
60. Multiply line 57 by line 59. (Cannot exceed line 57). Enter here and on line 14	60.	

PART X DECLARATIONS — Sign below. If filing jointly both husband and wife must sign.

This return is due April 15, 1981, or on the 15th day of the fourth month after the close of your tax year.

I declare under penalty of perjury that the information in this return, and attachments, is true, correct and complete.

I declare under penalty of perjury that this return is based on all information of which I have any knowledge.

Your Signature .... Date

Preparer's Signature, Business Name, Address and Identification Number

Spouse's Signature (if filing jointly, BOTH must sign even if only one had income)

Page 2, Item 17a

Mailing Instructions: PAY — Make checks payable to "State of Michigan". Record your social security number on the face of your check. Mail check and return to: Michigan Department of Treasury, Lansing, MI 48929.

REFUND OR CREDIT — Mail your return to: Michigan Department of Treasury, Lansing, MI 48956.

Michigan Department of Treasury

MICHIGAN INDIVIDUAL
INCOME TAX RETURN MI-1040

1979

Office Use	
a.	b.
c.	
d.	

READ ALL INSTRUCTIONS AS YOU COMPLETE THIS FORM

1. For 1979, or taxable year beginning _____ , 1979, ending _____ , 19 ___

PART I IDENTIFICATION (Please type or print)

① First name & initial (if joint return, use first names & initials of both)	Last name	③a. Your social security number

Page 1, Item 5

Address (number and street or rural route)		3b. Your occupation

Page 1, Item 1

City, town or post office, and State	ZIP Code	③c. Spouse's social security number

		3d. Spouse's occupation

4a. School district code (see instr., pg. 7)   4b. School district name

Page 1, Item 2

⑤ RESIDENCY STATUS
a. ☐ Resident
b. ☐ Nonresident
c. ☐ Part-year resident—Dates:

Page 1, Item 3

Fro... _____

To ___|___|___

⑥ STATE CAMPAIGN FUND
Do you (or your spouse if joint return) want $2 of your taxes to go to this fund? (Your decision will not increase your tax or reduce your refund.)

　　　　YES　　NO
a. You . . . . ☐ ☐
b. Your Spouse . . . ☐ ☐

⑦ FILING STATUS
a. ☐ Single　　Page 1, Item 4
b. ☐ Married, filing jointly
c. ☐ Married, filing separately — Enter spouse's social security number on line 3c and enter spouse's name here:

_____

8. EXEMPTIONS
a. Your allowable
　Federal exemptions . . . . . . _____
b. Special exemption for hemiplegics, paraplegics and quadriplegics . . . . _____
c. TOTAL EXEMPTIONS
　Add lines 8(a) and 8(b) ⑧ _____

PART II INCOME AND ADJUSTMENTS

Page 1, Item 6

9. Adjusted gross income which should be reported on Federal Form 1040, line 31, or 1040A, line 11. (Attach copies of any federal schedules that indicate a loss from or adjustment to gross income. See page 7 of instructions) . . . . ⑨ ____ Page 1, Item 7

10. Additions to adjusted gross income (from page 2, line 37 of this form) . . . . ⑩ ____ Page 1, Item 8

11. Total. Add lines 9 and 10 . . . . 11. ____

12. Subtractions from adjusted gross income (from page 2, line 45 of this form) . . . . ⑫ ____ Page 1, Item 9

13. Income subject to tax. Subtract line 12 from line 11 . . . . 13. ____

14. Exemption allowance. Multiply line 8 by $1500.00. Part-year and nonresidents enter line 59 . . . . ⑭ ____

15. Taxable income. Subtract line 14 from line 13 . . . . 15. ____ Page 1, Item 10

16. Tax. Multiply line 15 by 4.6% (.046) . . . . 16. ____ Page 1, Item 11

PART III CREDITS (SEE INSTRUCTIONS — PAGES 8 THROUGH 10)

Page 2, Item 15　　　　　　　　　　　　　　　　　　AMOUNT PAID　　　　CREDIT

17. Income tax paid to Michigan cities . . . . ⑰ ____ 　17a. ____

18. Contributions to Michigan colleges, universities and public libraries . . . . ⑱ ____ 　18a. ____

19. Income tax paid to another state (attach copy of return) . . . . 19. ____ 　⑲ ____

20. Total credits. Add lines 17a, 18a and 19a . . . . 20. ____

21. Income tax. Subtract line 20 from line 16. If line 20 is greater than line 16 enter "NONE" . . . . ㉑ ____

PART IV PROPERTY TAX AND HOME HEATING CREDITS AND PAYMENTS

22. Property Tax and Home Heating Credit(s). Attach MI-1040CR-1, 2, 3, or 4 . . . . ㉒ ____

23. Farmland Preservation or Solar Energy Credit. Attach MI-1040CR-5 or 6 . . . . . ㉓ ____

24. Michigan tax withheld. Attach State copy of W-2 . . . . ㉔ ____ Page 1, Item 12

25. Michigan estimated tax payments . . . . ㉕ ____ Page 1, Item 13

26. 1978 overpayment credited to 1979 . . . . ㉖ ____

27. Add lines 22, 23, 24, 25 and 26 . . . . 27. ____

PART V TAX DUE STATE OR OVERPAYMENTS AND CREDITS DUE YOU

28. If line 27 is less than line 21, enter BALANCE OF TAX DUE STATE . . . . PAY ▶ ㉘ ____ Page 1, Item 14

29. If line 27 is greater than line 21, enter BALANCE DUE YOU . . . . 29. ____

30. Amount of line 29 to be PAID TO YOU . . . . ▶ ㉚ ____

31. Amount of line 29 to be credited to 1980 ESTIMATED TAX . . . . ▶ ㉛ ____

(vertical left margin text) ATTACH CHECK OR MONEY ORDER HERE ▶ ATTACH STATE COPY OF W-2 HERE

(OVER)

PAGE 2, MI-1040

PART VI — ADDITIONS TO INCOME

32. Gross interest and dividends from obligations issued by states other
    than Michigan or their political subdivisions .... 32. Page 2, Item 18
33. Capital gains (from MI-1040D) .... 33. Page 2, Item 18
34. Other gains (from MI-4797) .... 34. _____
35. Losses attributable to other states (see Instructions, page 10) .... 35. Page 2, Item 18
36. Other (see Instructions, page 10) Describe: _____ 36. _____
37. Total additions. Add lines 32 through 36. Enter here and on page 1, line 10 ...... 37. _____

PART VII — SUBTRACTIONS FROM INCOME

38. Income from U.S. government bonds and other U.S. obligations included in line 9 .... 38. Page 2, Item 19
39. Military pay or military retirement benefits from U.S. Armed Forces included in line 9 (attach W-2)... 39. Page 2, Item 19
40. Capital gains (from MI-1040D) .... 40. _____
41. Other gains (from MI-4797) .... 41. _____
42. Income attributable to another state. Explain type and source. _____ 42. Page 2, Item 19
43. Retirement or pension benefits, included in line 9. Name of Payer: _____ 43. Page 2, Item 19
44. Other (see Instructions, page 11). Describe: _____ 44. _____
45. Total subtractions. Add lines 38 through 44. Enter here and on page 1, line 12 ...... 45. _____

PART VIII — PART-YEAR AND NONRESIDENT INCOME ALLOCATION

(See page 11 of the Instructions) INCOME	TOTAL INCOME COLUMN A	MICHIGAN INCOME COLUMN B	INCOME FROM OTHER STATES–COLUMN C
46. Wages, salaries, tips, etc.			
47. Dividends ____ Exclusion ____ Balance			
48. Interest			
49. Business or farm income			
50. Capital gains, from Federal schedules			
51. Income reported on Federal Schedule E			
52. Other. (Describe) ____			
53. Gross Income. Add lines 46 thru 52			
ADJUSTMENTS TO INCOME			
54. Enter total adjustments claimed on line 30 of your Federal Income tax return. Describe. ____			
55. Subtract line 54 from line 53. Amount in Column A should agree with line 9. Enter amount in Column B on line 57. Enter amount in Column C on line 42			

PART IX — PART-YEAR AND NONRESIDENT EXEMPTION ALLOWANCE

If you received gross income not included in line 9, or income that can be deducted on lines 38 and 39,
see page 12 of the Instructions before completing this schedule.
56. Multiply number of exemptions on line 8 by $1,500.00 .... 56. _____
57. Michigan source income: enter amount from line 55, Column B .... 57. _____
58. Divide line 57 by line 55, Column A, and enter percentage .... 58. _____ %
59. Multiply line 56 by line 58. Enter here and on line 14. .... 59. _____

PART X — DECLARATIONS — Sign below. If filing jointly, both husband and wife must sign.

This return is due April 15, 1980, or on the 15th day of the fourth month after the close of your tax year.

I declare under penalty of perjury that the information in this return, and attachments, is true, correct and complete.

I declare under penalty of perjury that this return is based on all information of which I have any knowledge.

Your Signature ▶   Date

Preparer's Signature, Business Name, Address and Identification Number

Spouse's Signature (if filing jointly, BOTH must sign even if only one had income) ▶

Page 2, Item 17a

Mailing Instructions: PAY – Make checks payable to "State of Michigan". Record your social security number on the face of your check. Mail check and return to: Michigan Department of Treasury, Lansing, MI 48929.
REFUND OR CREDIT – Mail your return to: Michigan Department of Treasury, Lansing, MI 48956.

Michigan Department of Treasury

1978 MICHIGAN
INDIVIDUAL INCOME TAX RETURN MI-1040

READ ALL INSTRUCTIONS AS YOU COMPLETE THIS FORM. PLEASE PRINT OR TYPE.

Office Use	
a	b
c	
d	

1. For 1978, or taxable year beginning _____ , 1978, ending _____ , 19

PART I   IDENTIFICATION

First name & initial (if joint return, use first names & initials of both)

Page 1, Item 5

Last name

3a. Your social security number

Address (number and street or rural route)

3b. Your occupation

Page 1, Item 1

City, town or post office, and State   ZIP Code

3c. Spouse's social security number

4a. School district name (see instructions, page 6)   4b. School district code

3d. Spouse's occupation

Page 1, Item 2

5. RESIDENCY STATUS
a. ☐ Resident
b. ☐ Nonresident
c. ☐ Part-year resident.

Fr< **Page 1, Item 3** __

To _____

6. STATE CAMPAIGN FUND

Do you (or your spouse if joint return) want $2 of your taxes to go to this fund? (Your decision will not increase your tax or reduce your refund.)

	YES	NO
a. You	☐	☐
b. Your Spouse	☐	☐

7. FILING STATUS   **Page 1, Item 4**
a. ☐ Single
b. ☐ Married, filing jointly
c. ☐ Married, filing separately
(c only) Name of spouse:

_____

Enter social security number on line 3c

8. EXEMPTIONS
a. Your allowable
Federal exemptions ....
b. Special exemption for hemiplegics, paraplegics and quadriplegics ....
c. TOTAL EXEMPTIONS
Add lines 8(a) and 8(b)   8

Page 1, Item 6

PART II   INCOME AND ADJUSTMENTS

9. Adjusted gross income as defined in the Internal Revenue Code and which should be reported on Federal Form 1040, line 31, or 1040A, line 10 (attach copies of any Federal schedules that indicate a loss or adjustment from gross income — see page 7 of the instructions) 9   **Page 1, Item 7**

10. Additions to adjusted gross income (from page 2, line 36 of this form) 10   **Page 1, Item 8**

11. Total. Add lines 9 and 10 .... 11.

12. Subtractions from adjusted gross income (from page 2, line 44 of this form) 12   **Page 1, Item 9**

13. Income subject to tax. Subtract line 12 from line 11 .... 13.

14. Exemption allowance, multiply line 8 by $1500.00 (part-year and nonresidents: enter line 58) 14

15. Taxable income. Subtract line 14 from line 13 .... 15.   **Page 1, Item 10**

16. Tax: multiply line 15 by 4.6% (.046) .... 16.   **Page 1, Item 11**

PART III   CREDITS (SEE INSTRUCTIONS — PAGES 7 AND 8)

Page 2, Item 15

	AMOUNT PAID	CREDIT
17. Income tax paid to Michigan cities 17		17a.
18. Contributions to Michigan colleges, universities and public libraries 18		18a.
19. Income tax paid to another state (attach copy of return) 19		19a.

20. Total credits. Add lines 17a, 18a and 19a .... 20.

21. Income tax. Subtract line 20 from line 16 (if line 20 is greater than line 16 enter 'NONE') ...... 21.

PART IV   PROPERTY TAX AND HOME HEATING CREDITS AND PAYMENTS

22. Property Tax & Home Heating Credits. Attach MI-1040CR-1, 2, 3, 4 or 5 ... 22.

23. Michigan tax withheld (attach State copy of W-2) 23   **Page 1, Item 12**

24. Michigan estimated tax payments 24   **Page 1, Item 13**

25. 1977 overpayment credited to 1978 .... 25.

26. Add lines 22, 23, 24, and 25 .... 26.

PART V   BALANCE DUE OR REFUND

27. If line 26 is less than line 21, enter BALANCE OF TAX DUE .... PAY ▶ 27   **Page 1, Item 14**

28. If line 26 is greater than line 21, enter AMOUNT OVERPAID .... 28.

29. Amount of line 28 to be REFUNDED TO YOU .... REFUND ▶ 29.

30. Amount of line 28 to be credited to 1979 ESTIMATED TAX .... ▶ 30.

(OVER)

ATTACH STATE COPY OF W-2 HERE   ATTACH CHECK OR MONEY ORDER HERE

PART VI ADDITIONS TO INCOME

31. Gross interest and dividends from obligations issued by states other
    than Michigan or their political subdivisions . . . . 31. Page 2, Item 18
32. Capital gains (from MI-1040D) . . . . 32. Page 2, Item 18
33. Other gains (from MI-4797) . . . . 33.
34. Losses attributable to other states (see instructions, page 9) . . . . 34. Page 2, Item 18
35. Other (see instructions, page 9) . . . . 35.
36. Total additions. Add lines 31 through 35. Enter here and on page 1, line 10 . . . . 36.

PART VII SUBTRACTIONS FROM INCOME

37. Income from U.S. government bonds and other U.S. obligations included in line 9 . . . . 37. Page 2, Item 19
38. Military pay or military retirement benefits from U.S. Armed Forces included in line 9 (attach W-2) . . . 38. Page 2, Item 19
39. Capital gains (from MI-1040D) . . . . 39.
40. Other gains (from MI-4797) . . . . 40.
41. Income attributable to another state. Explain type and source. 41. Page 2, Item 19
42. Retirement or pension benefits, included in line 9. Name of Payer: 42. Page 2, Item 19
43. Other (see instructions, page 10). Describe: 43.
44. Total subtractions. Add lines 37 through 43. Enter here and on page 1, line 12 . . . . 44.

PART VIII PART-YEAR AND NONRESIDENT INCOME ALLOCATION

(See page 10 of the instructions) INCOME	TOTAL INCOME COLUMN A	MICHIGAN INCOME COLUMN B	INCOME FROM OTHER STATES—COLUMN C
45. Wages, salaries, tips, etc.			
46. Dividends . . . . Exclusion . . . . Balance			
47. Interest			
48. Business or farm income			
49. Capital gains, from Federal schedules			
50. Income reported on Federal Schedule E			
51. Other. (Describe)			
52. Gross income. Add lines 45 thru 51			
ADJUSTMENTS TO INCOME			
53. Enter total of adjustments claimed on lines 22 thru 30 of your Federal income tax return. Describe.			
54. Subtract line 53 from line 52. Amount in Column A should agree with line 9. Enter amount in Column B on line 56. Enter amount in Column C on line 41			

PART IX PART-YEAR AND NONRESIDENT EXEMPTION ALLOWANCE

If you receive gross income not included in line 9, such as excluded disability income, capital gains, foreign source income, etc., or have income that can be deducted on lines 37 and 38, see page 10 of the instructions before completing this schedule.

55. Multiply number of exemptions on line 8 by $1,500.00 . . . . 55.
56. Michigan source income: enter amount from line 54, Column B . . . . 56.
57. Divide line 56 by line 54, Column A, and enter percentage. . . . . 57. %
58. Multiply line 55 by line 57. Enter here and on line 14 . . . . 58.

PART X DECLARATIONS – Sign below. If joint return both husband and wife must sign.

This return is due April 16, 1979, or on the 15th day of the fourth month after the close of your tax year.

I declare under penalty of perjury that the information in this return, and attachments, is true, correct and complete.

Your Signature ▶   Date

I declare under penalty of perjury that this return is based on all information of which I have any knowledge.

Preparer's Signature, Business Name, Address and Identification Number

Spouse's Signature (if filing jointly, BOTH must sign even if only one had income) ▶

Page 2, Item 17a

Mailing Instructions: PAY – Make checks payable to "State of Michigan". Record your social security number on the face of your check. Mail check and return to: Michigan Department of Treasury, Lansing, MI 48929.
REFUND – Mail your return to: Michigan Department of Treasury, Lansing, MI 48956.

MICHIGAN DEPARTMENT OF TREASURY C-6606 (REV. 11-85) 1	NOTE! THE MAILING LABEL SHOWS YOUR **INTANGIBLES TAX ACCOUNT NUMBER!** PLEASE USE THIS NUMBER WHEN SUBMITTING PAYMENT, OR IN CORRESPONDENCE!

INTANGIBLES TAX RETURN

This form is issued under authority of Act 301, P.A. 1939. Filing is mandatory. See Part III for penalty and interest provisions.

FOR OFFICE USE ONLY

PART I — IDENTIFICATION

1. **CALENDAR YEAR** 19___ OR **FISCAL YEAR** _____ 19___ TO _____ 19___	3 NAME & ADDRESS *(PLEASE AFFIX MAILING LABEL IN THIS BOX)*	(4) INTANGIBLES TAX ACCOUNT NO.
2. FILING STATUS (CHECK ONE) Page 4, Item 1 ☐ INDIVIDUAL ☐ FIDUCIARY		5a. YOUR SOCIAL SECURITY NO.
6. FILING METHOD (CHECK ONE) ☐ MONTHLY AVERAGE ☐ RETROACTIVE DATE		5b. SPOUSE SOCIAL SECURITY NO.
		7. EMPLOYER IDENTIFICATION NO.

8. IF THIS RETURN IS FOR AN ESTATE, INDICATE PROBATE.			9a. POSTED OFFICE USE	9b. AUDITED OFFICE USE
8a. FILE NO.	8b. COUNTY	8c. DATE OF DEATH		

PART II — TAX COMPUTATION

10. TAX STOCKS AND BONDS FROM SCHEDULE I, LINE 32 .... 10.	Page 4, Item 2
11. TAX ACCOUNTS AND NOTES RECEIVABLE FROM SCHEDULE II, LINE 35 .... 11.	Page 4, Item 3
12. TAX MORTGAGES AND LAND CONTRACTS FROM SCHEDULE III, LINE 37 .... 12.	Page 4, Item 4
13. TAX ANNUITIES FROM SCHEDULE IV, LINE 39 .... 13.	Page 4, Item 5
14. TAX BENEFICIARIES FROM TRUST RETURN (ATTACH) .... 14.	
15. TOTAL—ADD LINES 10, 11, 12, 13 AND 14 .... 15.	
16. STATUTORY DEDUCTION (SINGLE—$175; JOINT—$350) .... 16.	Page 4, Item 6
17. SUBTRACT LINE 16 FROM LINE 15 .... 17.	
18. CASH ON HAND AND IN TRANSIT ON RETROACTIVE DATE .... 18.	Page 4, Item 7
19. MULTIPLY LINE 18 BY 20¢ PER $1,000 (.0002) .... 19.	
20. TOTAL TAX DUE (ADD LINES 17 AND 19) .... 20.	Page 4, Item 8

PART III — PENALTY AND INTEREST (IF APPLICABLE)

21. PENALTY, $5.00 OR 5% PER MONTH WHICHEVER IS LARGER (MAXIMUM 25%) .... 21. _____
22. INTEREST 3/4 OF 1% PER MONTH UNTIL PAID .... 22. _____
23. TOTAL (ADD LINES 20, 21, 22) .... 23. _____

PART IV — CREDITS, BALANCE DUE OR REFUND

24. ADVANCE PAYMENT OF TAX .... 24. _____
25. IF LINE 23 IS GREATER THAN LINE 24, ENTER BALANCE OF TAX DUE .... PAY► (25) _____
26. IF LINE 24 IS GREATER THAN LINE 23, ENTER AMOUNT TO BE REFUNDED .... REFUND► 26. _____

MAKE REMITTANCE PAYABLE TO: **STATE OF MICHIGAN.** WRITE YOUR INTANGIBLES TAX ACCOUNT NO. ON YOUR CHECK.
MAIL TO: MICHIGAN DEPARTMENT OF TREASURY, TREASURY BUILDING, LANSING, MICHIGAN 48922.

PART V — DECLARATIONS

27. YEAR OF LAST RETURN FILED:	28. NAME AND ADDRESS SHOWN ON LAST RETURN:

NOTE: IF THIS RETURN IS FROM A TRUSTEE, ATTACH A LIST OF NAMES AND ADDRESSES OF BENEFICIARIES AND DATE OF CREATION OF TRUST.

I DECLARE UNDER THE PENALTIES IMPOSED BY ACT NO. 301 P.A. OF 1939, AS AMENDED, THAT THIS RETURN, INCLUDING ANY ACCOMPANYING SCHEDULES AND STATEMENTS, HAS BEEN EXAMINED BY ME AND TO THE BEST OF MY KNOWLEDGE AND BELIEF IS A TRUE, CORRECT AND COMPLETE RETURN.

29. SIGNATURE	30. PREPARED BY
SIGNATURE	
	ADDRESS OF PREPARER
TITLE: STATE WHETHER INDIVIDUAL OWNER, EXECUTOR, ADMINISTRATOR, TRUSTEE, ETC.	

SEE SCHEDULES ON REVERSE SIDE

13

C-6606 Reverse

SCHEDULE I Stocks and Bonds
A copy of U.S. form 1040, Schedule B may be substituted for income producing items.

31a. NAME OF ISSUING COMPANY	b. Indicate Whether Stock(s) or Bonds	c. Class of Stock Com. or Pfd.	d No. of Shares	e. Par Value Per Share or Face Value of Bonds		f. Portion of Year	g. Total Dividends or Interest		h. Total Taxable Value of Shares (Col. d x Col. e x Col. f) or Total Taxable Value of Bonds (Face Value . Col. e x Col. f)		i. Tax @ 3½% of Col. g or 1/10 of 1% of Col. h, whichever is greater	
32. TOTAL SCHEDULE I (Transfer to Page One - Line 10)												

SCHEDULE II, Accounts and Notes Receivable

a. Accounts and Notes Receivable	b. Average Balance of Receivable	c. Income Applicable to Column (b)	d. Tax @ 3½% of Col. (c) or 1/10 of 1% of Col. (b), whichever is greater
33. Non-Income producing			
34. Income producing			
35. Total Schedule II (Transfer to Page One — Line 11)			

SCHEDULE III, Mortgages, Land Contracts, Etc.

36a. TYPE OF INVESTMENT & DESCRIPTION	b. Interest Rate	c. Portion of Year	d. Average Face Amount		e. Average Balance of Mortgage Owing on Same Real Estate (For Use on Land Contracts Only)		f. Net Amount Taxable Col. d Minus Col. e x Col. c		g. Interest Earned Col. f x b		h. Tax @ 3½% of Col. g or 1/10 of 1% of Col. f, whichever is greater	
37. TOTAL SCHEDULE III (Transfer to Page One - Line 12)												

SCHEDULE IV, Annuities

38a. NAME OF COMPANY	b. Interest Rate	c. Portion of Year	d. Amount Received During Year	e. Reserve Bal Jan 1 of Tax Year		f. Income Taxable Col. e x Col. b x Col. c		g. Reserve Balance Dec 31 of Tax Yr Col. e Plus Col. f Less Col. d		h. Average Reserve Balance Col. e Plus Col. g Divided by 2		i. Tax @ 3½% of Col. f or 1/10 of 1% of Col. h, whichever is greater	
39. TOTAL SCHEDULE IV (Transfer to Page One - Line 13)													

14

Michigan Department of Treasury

**GENERAL HOMESTEAD
PROPERTY TAX CREDIT CLAIM**

1983 AND 1984
MI-1040 CR-4   MI-1040CR-4

Office Use
b.

This form is issued as provided for by the Income Tax Act of 1967, as amended. Filing of this form is voluntary. However, credit will not be given if the form is not filed.

PART I   IDENTIFICATION *(Please type or print)*

1 First name & initial (if joint return, use first names & initials of both)	Last name	2a Your social security number

Present home address (number and street or rural route)		2b Spouse's social security number

Page 2, Item 20

City, town or post office, and State	ZIP Code	3a Do you now own or rent your homestead? ☐ RENT ☐ OWN

4a School district code	4b. School district name	3b OWNERS, do you pay any property tax in the summer? ☐ YES ☐ NO

5. Residency status in 1983:   Mo. Day Yr.   Mo. Day Yr.
   a ☐ RESIDENT   b ☐ NONRESIDENT   c ☐ PART-YEAR RESIDENT — Dates: From |__|__|__| To |__|__|__|

PART II   SCHEDULE OF HOUSEHOLD INCOME — INCLUDE ALL INCOME OF YOU AND YOUR SPOUSE

7. Salaries, wages, tips and other employee compensation (including strike, sick and SUB pay) .... 7.   Page 2, Item 21
8. All dividends and interest (including U.S., State and municipal bond interest) .... 8.   Page 2, Item 22
9. Rent, royalty and net business income... 9.   Page 2, Item 23
10. Annuity and pension benefits — Name of payer _____ 10.   Page 2, Item 24
11. Net farm income (see Instructions, page 18) ....11.   Page 2, Item 25
12. All capital gains less capital losses (see Instructions, page 18)...................................12.   Page 2, Item 26
13. Alimony and other taxable income and adjustments (see Instr., page 19). Describe_____13.   Page 2, Item 27
14. Social security, supplemental security income (SSI) or railroad retirement benefits ....14.
15. Child support ....15.   Page 2, Item 28
16. Unemployment compensation and trade readjustment allowance (TRA) benefits.......................16.   Page 2, Item 29
17. Other nontaxable income (see Instructions, page 19). Describe_____17.
18. Workers' compensation, veterans' disability compensation and pension benefits ....18.
19. ADC and GA benefits (attach Department of Social Services Annual Statement) ....19.
20. All other public assistance payments. Describe_____20.
21. SUBTOTAL — Add lines 7 through 20 ....21.
22. Insurance premiums you paid for medical care of yourself and family................................22.
23. HOUSEHOLD INCOME — Subtract line 22 from line 21 ....23.   Page 2, Item 30

PART III   PROPERTY TAX CREDIT

24. Property taxes on your home for 1983, or amount from line 37, 43 or 45 ....24.   Page 2, Item 31
25. Rent paid from line 40 ....25 Page 2, Item 32
26. Multiply line 25 by 17% (.17) ....26.
27. Total. Add lines 24 and 26 ....27.
28. Amount not refundable. Multiply line 23 by 3.5% (.035) ....28.
29. Subtract line 28 from line 27. If line 28 is greater than line 27, enter NONE ....29.
30. Multiply line 29 by 60% (.60), and enter here (cannot exceed $1,200.00) ....30.
    INSTRUCTIONS FOR LINE 31 — Enter one of the following:
    (a). If you received ADC or GA benefits, complete Part IX on page 2 and enter on line 31 the
         amount from line 49.
    (b). If your household income (line 23) exceeds $68,500.00, reduce the amount on line 30
         according to the Instructions on page 19 and enter result on line 31.
    (c). All others, carry the amount on line 30 to line 31.
31. PROPERTY TAX CREDIT. Enter here and on line 23 of form MI-1040 if you are required to
    file a Michigan Income Tax return ....31.

(OVER)

Michigan Department of Treasury

GENERAL HOMESTEAD
PROPERTY TAX CREDIT CLAIM

1982
MI-1040 CR-4

Office Use	
a.	b.
c.	
d.	

This form is issued as provided for by the Income Tax Act of 1967, as amended. Filing of this form is voluntary. However, credit will not be given if the form is not filed.

PART I — IDENTIFICATION (Please type or print)

① First name & initial (if joint return, use first names & initials of both)   Last name

② Your social security number

Present home address (number and street or rural route)

②b Spouse's social security number

Page 2, Item 20

City, town or post office, and State   ZIP Code

③ Do you now own or rent your homestead?   ☐ RENT ☐ OWN

④ School district code   4b. School district name

④b OWNERS, do you pay any property tax in the summer?   ☐ YES ☐ NO

5. Residency status in 1982:   Mo. Day Yr.   Mo. Day Yr.
   ⑤a ☐ RESIDENT   ⑤b ☐ NONRESIDENT   ⑤c ☐ PART-YEAR RESIDENT — Dates: From |___|___|___| To |___|___|___|

PART II — SCHEDULE OF HOUSEHOLD INCOME — INCLUDE ALL INCOME OF YOU AND YOUR SPOUSE

7. Salaries, wages, tips and other employee compensation (including strike, sick and SUB pay) .... 7.   Page 2, Item 21
8. All dividends and interest (including U.S., State and municipal bond interest) .... 8.   Page 2, Item 22
9. Rent, royalty and net business income .... 9.   Page 2, Item 23
10. Annuity and pension benefits — Name of payer _____ .... 10.   Page 2, Item 24
11. Net farm income (see instructions, page 18) .... 11.   Page 2, Item 25
12. All capital gains less capital losses (see instructions, page 18) .... 12.   Page 2, Item 26
13. Other taxable income and adjustments (see instr., page 19). Describe_____ ⑬13.
14. Social security, supplemental security income (SSI) or railroad retirement benefits .... ⑭
15. Alimony and child support .... ⑮15.   Page 2, Item 27   ✳
16. Unemployment insurance and trade readjustment allowance (TRA) benefits .... ⑯
17. Other nontaxable income (see instructions, page 19). Describe_____ .... 17.
18. Workers' compensation, veterans' disability compensation and pension benefits .... 18.   Page 2, Item 29
19. ADC and GA benefits (attach Department of Social Services Annual Statement) .... ⑲.
20. All other public assistance payments (see instr., page 19). Describe_____ .... 20.
21. SUBTOTAL — Add lines 7 through 20 .... 21.
22. Insurance premiums you paid for medical care of yourself and family .... 22.
23. HOUSEHOLD INCOME — Subtract line 22 from line 21 .... ㉓.   Page 2, Item 30

PART III — PROPERTY TAX CREDIT

24. Property taxes on your home for 1982, or amount from line 37, 43 or 45 .... ㉔.   Page 2, Item 31
25. Rent paid from line 40 .... ㉕ Page 2, Item 32
26. Multiply line 25 by 17% (.17) .... 26.
27. Total. Add lines 24 and 26 .... 27.
28. Amount not refundable. Multiply line 23 by 3.5% (.035) .... 28.
29. Subtract line 28 from line 27. If line 28 is greater than line 27, enter NONE .... 29.
30. Multiply line 29 by 60% (.60), and enter here (cannot exceed $1,200.00) .... 30.
    INSTRUCTIONS FOR LINE 31 — Enter one of the following:
    (a). If you received ADC or GA benefits, complete Part IX on page 2 and enter on line 31 the amount from line 49.
    (b). If your household income (line 23) exceeds $65,000.00, reduce the amount on line 30 according to the instructions on page 19 and enter result on line 31.
    (c). All others, carry the amount on line 30 to line 31.
31. PROPERTY TAX CREDIT. Enter here and on line 23 of form MI-1040 if you are required to file a Michigan Income Tax return .... ㉛.

✳ List amount from line 15 as Item 27 on DCD. List other taxable income items and amounts in space provided on DCD. Leave Item 28 on DCD blank.

Michigan Department of Treasury

GENERAL HOMESTEAD
PROPERTY TAX CREDIT CLAIM

1981
MI-1040 CR-4

Office Use

a.	b.
c.	
d.	

PART I   IDENTIFICATION *(Please type or print)*

First name & initial (if joint return, use first names & initials of both)	Last name	Your social security number

Present home address (number and street or rural route)		Spouse's social security number

City, town or post office, and State	ZIP Code	Page 2, Item 20 Do you now own or rent your homestead? ☐ RENT ☐ OWN

School district code	5b. School district name	OWNERS, do you pay any property tax in the summer? ☐ YES ☐ NO

PART II   SCHEDULE OF HOUSEHOLD INCOME — INCLUDE ALL INCOME OF YOU AND YOUR SPOUSE

6. Salaries, wages, tips and other employee compensation (including strike, sick and SUB pay) .... 6. Page 2, Item 21
7. All dividends and interest (including U.S., State and municipal bond interest) .... 7. Page 2, Item 22
8. Rent, royalty and net business income .... 8. Page 2, Item 23
9. Annuity and pension benefits — Name of payer _____ 9. Page 2, Item 24
10. Net farm income (see instructions, page 17) .... 10. Page 2, Item 25
11. All capital gains less capital losses (see instructions, page 18) .... 11. Page 2, Item 26
12. Other taxable income and adjustments (see instr., page 18). Describe _____ 12.
13. Social security, supplemental security income (SSI) or railroad retirement benefits .... 13.
14. Alimony and child support .... 14. Page 2, Item 27 ✳
15. Veterans' disability compensation and pension benefits .... 15.
16. Other nontaxable income (see instructions, page 18). Describe _____ 16.
17. Workers' compensation, unemployment insurance and trade readjustment allowance (TRA) benefits .... 17. Page 2, Item 29
18. ADC and GA benefits (attach Department of Social Services Annual Statement) .... 18.
19. All other public assistance payments (see instr., page 18). Describe _____ 19.
20. SUBTOTAL — Add lines 6 through 19 .... 20.
21. Insurance premiums you paid for medical care of yourself and family .... 21.
22. HOUSEHOLD INCOME — Subtract line 21 from line 20 .... 22. Page 2, Item 30

PART III   PROPERTY TAX CREDIT

23. Property taxes on your home for 1981, or amount from line 35, 41 or 43 .... 23. Page 2, Item 31
24. Rent paid from line 38 .... 24. Page 2, Item 32
25. Multiply line 24 by 17% (.17) .... 25.
26. Total. Add lines 23 and 25 .... 26.
27. Amount not refundable. Multiply line 22 by 3.5% (.035) .... 27.
28. Subtract line 27 from line 26. If line 27 is greater than line 26, enter NONE .... 28.
29. PROPERTY TAX CREDIT. Multiply line 28 by 60% (.60). (Cannot exceed $1,200.00.) Enter here .... 29.
   29a. Complete Part IX, page 2, only if you received ADC or GA benefits,
       and enter your credit (line 46) here. (Cannot exceed $1,200.00) .... 29a.

NOTE: Enter amount on line 29 or 29a on line 22 of Form MI-1040
      If you are required to file a Michigan Income Tax return.

(OVER)

✳List amount from line 14 as Item 27 on DCD. List other
taxable income items and amounts in space provided on DCD.
Leave Item 28 on DCD blank.

Michigan Department of Treasury   **1979**

**GENERAL PROPERTY TAX CREDIT
AND HOME HEATING CREDIT MI-1040 CR-4**

Office Use	
a	b
c	
d	

READ ALL INSTRUCTIONS AS YOU COMPLETE THIS FORM

PART I   IDENTIFICATION *(Please type or print)*

1. First name & initial (if joint return, use first names & initials of both) | Last name | ② Your social security number

Address (number and street or rural route) | ③ Spouse's social security number

City, town or post office, and State | ZIP Code | ④ Your allowable Michigan exemptions

5a. School district name (see instructions, page 17) | 5b. School district code

PART II   SCHEDULE OF HOUSEHOLD INCOME – INCLUDE ALL INCOME OF YOU AND YOUR SPOUSE

6. Salaries, wages, tips and other employee compensation (including strike, sick and SUB pay) .... 6. Page 2, Item 21

7. All dividends and interest (including U.S., State and municipal bond interest) .... 7. Page 2, Item 22

8. Rent, royalty and net business income .... 8. Page 2, Item 23

9. Annuity and pension benefits — Name of payer _____ 9. Page 2, Item 24

10. Net farm income (see instructions, page 17) .... 10. Page 2, Item 25

11. All capital gains less capital losses (see instructions, page 17) .... 11. Page 2, Item 26

12. Other taxable income and adjustments (see instr., page 17). Describe: _____ 12.

13. Social security, supplemental security income (SSI) or railroad retirement benefits .... 13.

14. Alimony and child support .... 14. Page 2, Item 27 ⚓

15. Veterans' disability compensation and pension benefits .... 15.

16. Other nontaxable income (see instructions, page 18). Describe: _____ 16.

17. Workers' compensation and unemployment insurance benefits .... 17. Page 2, Item 29

18. ADC (attach Department of Social Services Annual Statement) .... ⑱.

19. All other public assistance payments (see instr., page 18). Describe: _____ ⑲.

20. SUBTOTAL — Add lines 6 through 19 .... 20.

21. Insurance premiums you paid for medical care of yourself and family .... 21.

22. HOUSEHOLD INCOME — Subtract line 21 from line 20 .... ㉒. Page 2, Item 30

PART III   PROPERTY TAX CREDIT

23. Property taxes on your home for 1979, or amount from line 39, 44 or 46 .... ㉓. Page 2, Item 31

24. Rent paid from line 42 .... ㉔. Page 2, Item 32

25. Multiply line 24 by 17% (.17) .... 25.

26. Total. Add lines 23 and 25 .... 26.

27. Amount not refundable. Multiply line 22 by 3.5% (.035) .... 27.

28. Subtract line 27 from line 26. If line 27 is greater than line 26, enter NONE .... 28.

29. PROPERTY TAX CREDIT. Multiply line 28 by 60% (.60). (Cannot exceed $1,200.00.) Enter here and also on line 33 if you do not claim a Home Heating Credit .... ㉙.

PART IV   HOME HEATING CREDIT AND CREDIT SUMMARY

30. Standard allowance from Table 4, page 16. Part-year residents, see instructions, page 16 .... 30.

31. Multiply household income (line 22) by 3.5% (.035). Part-year residents, see instructions, page 16 ..... 31.

32. HOME HEATING CREDIT. Subtract line 31 from line 30. .... ㉜.

33. SUMMARY: TOTAL CREDIT. Add lines 29 and 32. Enter here and also on line 22 of Form MI-1040 if you are required to file a Michigan Income Tax return .... ㉝.

(OVER)

*List amount from line 14 as Item 27 on DCD. List other taxable income items and amounts in space provided on DCD. Leave Item 28 on DCD blank.

Michigan Department of Treasury

MI-1040 X
(Rev. 12/84)

AMENDED MICHIGAN
INDIVIDUAL INCOME
TAX RETURN

(Issued under authority of Act 281, P.A. 1967)

Office Use	
a	b
c	
d	

ENTER CALENDAR YEAR OR ENDING DATE OF FISCAL YEAR (MO./DAY/YR.) OF THIS RETURN ▸ **19____**

PART I   IDENTIFICATION (Please type or print)

2 First name & initial (if joint return use first names & initials of both)   Last name   3a Your social security number
Page 1, Item 5

Home address (number and street or rural route)   3b Your Occupation
Page 1, Item 1   Page 1, Item 2

City, town or post office and State   ZIP Code   4 Spouse's social security no

IMPORTANT: Please answer all questions, fill in applicable items, and explain changes on Page 2.

5 Enter name and address on original return (if same as above write "Same") If changing from separate to joint return, enter names and addresses used on original returns (NOTE you cannot change from joint to separate returns after the due date has passed for filing separate returns)

6 Residency Status Claimed

On Original Return   Page 3, Item 1
[ ] Resident   [ ] Non-resident   [ ] Part-year resident from _____ to _____

On This Return   Page 1, Item 3
[ ] Resident   [ ] Non-resident   [ ] Part-year resident, from _____ to _____

7 Filing Status Claimed

	Page 3, Item 2	Single	Married filing jointly	Married filing separately
On Original Return		[ ]	[ ]	[ ]
On This Return	Page 1, Item 4	[ ]	[ ]	[ ]

Give name of spouse:

8 Exemptions: Page 1, Item 6
On Original Return   On This Return
Page 3, Item 3

PART II   INCOME, ADDITIONS, and DEDUCTIONS

			A. As originally reported or as adjusted (see specific inst.)	B. Net Change (increase or decrease - explain on Page 2)	C. Correct Amount
9.	Adjusted gross income. Explain changes on page 2	9	Page 3, Item 4		Page 1, Item 7
10.	Additions to adjusted gross income	10	Page 3, Item 5		Page 1, Item 8
11.	Total income. Add lines 9 and 10	11			
12.	Subtractions from adjusted gross income	12	Page 3, Item 6		Page 1, Item 9
13.	Balance. Subtract line 12 from line 11	13			
14.	Exemption allowance. Multiply number of exemptions by applicable rate (see instructions)	14			
15.	Taxable income. Subtract line 14 from line 13	15	Page 3, Item 7		Page 1, Item 10
16.	Tax. Multiply line 15 by tax rate (see instructions)	16	Page 3, Item 8		Page 1, Item 11

PART III   NON-REFUNDABLE CREDITS

17.	City income tax credit	17			
18.	College contribution credit	18			
19.	Credit for tax paid to another state	19			
20.	Total non-refundable credits. Add lines 17 through 19	20			
21.	Balance. Subtract line 20 from line 16. (If line 20 is greater than line 16 enter "NONE")	21			

PART IV   CREDITS AND PAYMENTS

22.	Homestead Property Tax Credit and Home Heating Credit (1st yr. 1978)	22	Page 3, Item 9		
23.	Farmland Preservation Tax Credit	23			
24.	Solar Energy Credit	24			
25.	Michigan income tax withheld Page 2, Item 15	25	Page 3, Item 10		Page 1, Item 12
26.	Michigan estimated tax payments	26	Page 3, Item 11		Page 1, Item 13
27.	Overpayments from prior year claimed on original return	27			
28.	Amount paid with original return, plus additional tax paid after filing		28	Page 3, Item 12	
29.	Total credits and payments. Add lines 22 through 28 of column C		29		

PART V   REFUND OR BALANCE DUE

30.	Refund, if any, shown on original return	30	Page 3, Item 13
31.	Enter the difference between lines 29 and 30 (see instructions)	31	
32.	If line 21, column C, is greater than line 31, enter BALANCE DUE. Pay in full (With interest of ¾ of 1% per month from the date tax was originally due)	32	Page 1, Item 14
33.	If line 21, column C, is less than line 31, enter REFUND to be received (Interest is paid at ¾ of 1% per month starting 45 days after date return is received)	33	

(OVER)

PART VI   **EXEMPTIONS**

34. Show exemptions claimed on your original return.

A Yourself	☐	Regular	[]	65 or Over	[ ]	Blind	[ ]	Paraplegic/ Quadriplegic	Enter Number of boxes checked ▶	
B Spouse	[ ]		[ ]		[ ]		[ ]			

35. Enter first names of dependent children who lived with you, and their social security numbers.

     Enter Number ▶

36. Enter first names of dependent children who did not live with you.
If pre-1985 agreement,
check here ♦ ☐

     Enter Number ▶

37. Enter full names of other dependents and social security numbers, if any.

     Enter Number ▶

38. Total number of exemptions claimed on your original return.

39. Other dependents not claimed on original return.

(a) NAME (Enter figure 1 in the last column to the right for each name listed. If more space is needed, attach schedule)	(b) Relationship	(c) Months lived in your home. If born or died during year write B or D	(d) Did dependent have income of $1500 or more	(e) Amount YOU furnished for dependent's support. If 100%, write ALL	(f) Amount furnished by OTHERS including dependent		
				$	$	▶	
						▶	
						▶	
						▶	

40. Explain change in number of dependents.

Page 3, Item 14

PART VII   **EXPLANATION OF CHANGES**

41. Explain changes to Income, Deductions, and Credits. Show computations in detail and attach applicable schedules.

If Taxpayer Used MI-1040X To File Initial Return:

If you are analyzing a MI-1040X with zeros in Column A, attempt to determine the information for Items 18 and 19 on page 1 of the DCD from information listed here.

If This Is A "True" Amended Return:

If you are analyzing a MI-1040X with some nonzero numbers in Column A, the information requested for Items 15 through 21 on page 3 of the DCD must be inferred from reading this part of the form. Two errors may be coded for changes in each of the following categories:

         Adjusted Gross Income
         Additions
         Subtractions

If more than two errors exist in one of these areas, code the two most significant errors on the DCD. Ignore any other errors.

PART VIII   **DECLARATIONS — Sign below. If filing jointly, both husband and wife must sign.**

I declare under penalty of perjury that the information in this return and attachments, is true, correct and complete	I declare under penalty of perjury that this return is based on all information of which I have any knowledge
Your Signature Date	Preparer's Signature, Business Name, Address and Identification Number
▶	Page 2, Item 17a
Spouse's Signature (if filing jointly, BOTH must sign even if only one had income)	
▶	

BIBLIOGRAPHY

BIBLIOGRAPHY

Abdel-khalik, A. R. and B. B. Ajinkya, Empirical Research in Accounting: A Methodological Viewpoint (Sarasota, Florida: The American Accounting Association, 1979).

Allingham, M. and A. Sandmo, "Income Tax Evasion: A Theoretical Analysis," Journal of Public Economics (November 1972), pp. 323-338.

American Bar Association Commission on Taxpayer Commpliance, "Report and Recommendations" (Chicago, Illinois: American Bar Foundation, 1987).

Benjamini, Y. and S. Maital, "Optimal Tax Evasion and Optimal Tax Evasion Policy: Behavioral Aspects," in the Economics of the Shadow Economy, edited by W. Gaertner and A. Wenig. (Berlin: Springer-Verlag, 1985), pp. 245-264.

Chang, O., Tax Avoidance: A Prospect Theory Perspective. Unpublished Ph.D. Dissertation, University of Illinois, 1984.

Clotfelter, C., "Tax Evasion and Tax Rates: An Analysis of Individual Returns," The Review of Economics and Statistics (August 1983), pp. 363-373.

Cowell, F., "Tax Evasion with Labour Income," Journal of Public Economics (February 1985), pp. 19-34.

Cox, D., "The Income Tax and the Underground Economy," National Tax Journal (September 1984), pp. 283-288.

Dean, P., T. Keenan and F. Kenney, "Taxpayers' Attitudes to Income Tax Evasion: An Empirical Study," British Tax Review 1 (1980), pp. 28-44.

Denzin, N., Sociological Methods: A Sourcebook, (New York: McGraw-Hill, Inc., 1978).

Department of the Treasury, Statistics of Income Bulletin 4 (3) (Winter 1984-85).

Ekstrand, L., "Factors Affecting Compliance: Focus Group and Survey Results." 1980 proceedings of the 73rd Annual Conference on Taxation, National Tax Association-Tax Institute of America (November, 1980).

Farrington D. and R. Kidd, "Is Financial Dishonesty a Rational Decision?" British Journal of Social and Clinical Psychology 16 (1977), pp. 139-146.

Feige, E. L., "How Big is the Irregular Economy," Challenge, November/December, 1979.

Festinger, L., A Theory of Cognitive Dissonance. (Evanston: Row, Peterson, 1957).

Frank, M. and D. Dekeyser-Meulders, "A Tax Discrepancy Coefficient Resulting from Tax Evasion or Tax Expenditures," Journal of Public Economics (August 1977), pp. 67-78.

Friedland, N., "A Note on Tax Evasion as a Function of the Quality of Information About the Magnitude and Credibility of Threatened Fines: Some Preliminary Research," Journal of Applied Psychology (February 1982), pp. 54-59.

Friedland, N., S. Maital, and A. Rutenberg, "A Simulation Study of Income Tax Evasion," Journal of Public Economics (August 1978), pp. 107-116.

Furnham, A., "The Protestant Work Ethic, Human Values, and Attitudes Towards Taxation," Journal of Economic Psychology 3 (1983), pp. 113-128.

Goddeeris, J. H., S. W. Martin, and J. C. Young, "Characteristics of the Individual Michigan Amnesty Participant," Michigan Department of Treasury, Lansing, Michigan (1988).

Graetz, M. J. and L. L. Wilde, "The Economics of Tax Compliance: Fact and Fantasy," National Tax Journal 38 (1985), pp. 355-364.

Grasmick, H., N. Finley, and D. Glaser, "Labor Force Participation, Sex-Role Attitudes, and Female Crime: Evidence from a Survey of Adults," Social Science Quarterly 65 (1984), pp. 703-718.

Grasmick, H., and W. Scott, "Tax Evasion and Mechanisms of Social Control: A Comparison with Grand and Petty Theft," Journal of Economic Psychology 2 (1982), pp. 213-230.

Groenland, E. and G. van Veldhoven, "Tax Evasion Behavior: A Psychological Framework," Journal of Economic Psychology 3 (1983), pp. 129-144.

Groves, H., "Empirical Studies of Income-Tax Compliance," National Tax Journal (December 1958), p. 291-301.

Gutmann P., "The Subterranean Economy," Financial Analysts Journal (November-December 1977), pp. 26, 27, 34.

Hotaling, A. and D. Arnold, "The Underground Economy," Massachusetts CPA Review (May-June 1981), pp. 8-14.

Internal Revenue Service, "Estimates of Income Unreported on Individual Income Tax Returns," Washington, D.C., September, 1979.

Internal Revenue Service, "Income Tax Compliance Research," Washington, D.C., July, 1983.

Internal Revenue Service, A Dictionary of Compliance Factors, Office of the Assistant Commissioner Research Division, undated.

Jackson, B. and S. Jones, "Salience of Tax Evasion Penalties Versus Detection Risk," Journal of the American Taxation Association (Spring 1985), pp. 7-17.

Jackson, B. and V. Milliron, "Tax Compliance Research: Findings, Problems, and Prospects," Journal of Accounting Literature (1986).

Kahneman, D., P. Slovic and A. Tversky, Judgement Under Uncertainty: Heuristics and Biases. (Cambridge University Press, 1982).

Kahneman, D. and A. Tversky, "Prospect Theory: An Analysis of Decision Under Risk," Econometrica (March 1979) pp. 263-291.

Kahneman, D. and A. Tversky, "The Psychology of Preferences," Scientific American (January, 1982), pp. 100-173.

Kahneman, D. and A. Tversky, "Choices Values, and Frames," American Psychologist, (April 1984), pp. 345-350.

Kaplan, S. E. and P. M. J. Reckers, "A Study of Tax Evasion Judgements," National Tax Journal (March 1985), pp. 97-102.

Kelejian, H. K., and W. E. Oates, Introduction to Econometrics (New York: Harper and Row, 1981).

Kmenta, J., Elements of Econometrics (New York: Macmillan Publishing Company, 1986).

Kennedy, P., A Guide to Econometrics (Cambridge: The MIT Press, 1985).

Kerlinger, F., Foundations of Behavioral Research 2nd ed. (New York: Holt, Rinehart and Winston, Inc., 1973).

Laver, M., The Politics of Private Desires. (New York: Penguin Books, 1981).

Leonard, H. B. and R. J. Zeckhauser, "Amnesty, Enforcement, and Tax Policy," in Tax Policy and the Economy, L. Summers, ed. (Cambridge: The MIT Press, 1986), pp. 55-85.

Long, J. E., and S. B. Caudill, "The Usage and Benefits of Paid Tax Return Preparation," National Tax Journal (March 1987), pp. 35-46.

Madeo, S., A. Schepanski, and W. Uecker, "Modeling Judgments of Taxpayer Compliance," working paper, University of Iowa, January 1985.

Mason, R. and L. Calvin, "A Study of Admitted Income Tax Evasion," Law and Society Review (Fall 1978), pp. 73-89.

Mason, R. and L. Calvin, "Public Confidence and Admitted Tax Evasion," National Tax Journal (December 1984), pp. 489-496.

Mason, R. and H. Lowry, "An Estimate of Income Tax Evasion in Oregon," Survey Research Center, Oregon State University, Corvallis, Oregon, 1981.

Michigan Department of Treasury, R. C. Fisher, and J. H. Goddeeris, "Michigan Tax Amnesty Report," Lansing, Michigan (1987).

Mikesell, J. L., "Amnesties for State Tax Evaders: The Nature of and Response to Recent Programs," National Tax Journal (September 1986), pp. 507-525.

Mikesell, J. L., "Tax Amnesties as a Tool for Revenue Administration," State Government 57 (1984), pp. 114-117.

Milliron, V. C., "A Behavioral Study of the Meaning and Influence of Tax Complexity," Journal of Accounting Research, (Autumn 1985).

Milliron, V. C. and D. R. Toy, "Tax Compliance: An Investigation of Key Features," Journal of the American Taxation Association (Spring 1988), pp. 84-104.

Mork, K., "Income Tax Evasion: Some Empirical Evidence," Public Finance 30 (1975), pp. 70-76.

Parle, W. M., and M. W. Hirlinger, "Evaluating the Use of Tax Amnesty by State Governments," Public Administration Review (May/June 1986), pp. 246-255.

Pindyck, R. S. and D. L. Rubinfeld, Econometric Models and Economic Forecasts, (New York: McGraw-Hill, Inc., 1981).

Reinganum, J. F. and L. L. Wilde, "Income Tax Compliance in a Principal-Agent Framework," Journal of Public Economics (February 1985), pp. 1-18.

Schmidt, P. and A. Witte, An Economic Analysis of Crime and Justice: Theory, Methods, and Applications (Orlando, Florida: Academic Press, Inc., 1984).

Schmolders, G., "Survey Research in Public Finance-A Behavioral Approach to Fiscal Theory," Public Finance 25 (1970), pp. 300-306.

Schwartz, R. and S. Orleans, "On Legal Sanctions," University of Chicago Law Review (Winter 1967), pp. 274-300.

Scott, W. and H. Grasmick, "Deterrence and Income Tax Cheating: Testing Interaction Hypotheses in Utilitarian Theories," The Journal of Applied Behavioral Science (July-September 1981), pp. 395-408.

Song, Y. and T. Yarbrough, "Tax Ethics and Taxpayer Attitudes: A Survey," Public Administration Review (Septemer-October 1978), pp. 442-452.

Spicer, M. W., "Civilization At A Discount: The Problem of Tax Evasion." National Tax Journal 39 (1986), pp. 13-20.

Spicer, M. and L. Becker, "Fiscal Inequality and Tax Evasion: An Experimental Approach," National Tax Journal (June 1980), pp. 171-175.

Spicer M. and R. Hero, "Tax Evasion and Heuristics: A Research Note," Journal of Public Economics (February 1985), pp. 263-267.

Spicer, M. and S. Lundstedt, "Understanding Tax Evasion," Public Finance 31 (1976), pp. 295-305.

Srinivasan, T., "Tax Evasion: A Model," Journal of Public Economics (November 1973), pp. 339-346.

Sutherland, E., White Collar Crime (New York: Dryden, 1949).

Tanzi, Vito, "The Underground Economy in the United States: Estimates and Implications," Banca Nazionale del Lavoro Quarterly Review (December 1980), pp. 427-453.

Tittle, C. R., Sanctions and Social Deviance: The Question of Deterrence. (New York: Praeger, 1980).

Van den Doel, H., Democracy and Welfare Economics. (Cambridge: Cambridge University Press, 1978).

Warneryd, K. E. and B. Walerud, "Taxes and Economic Behavior: Some Interview Data on Tax Evasion in Sweden," Journal of Economic Psychology (1982, Vol. 2), pp. 187-211.

Westat, Inc., Individual Income Tax Compliance Factors Study Qualitative Research. Prepared for the Internal Revenue Service, February 4, 1980a.

Westat, Inc., Self-Reported Tax Compliance: A Pilot Survey Report. Prepared for the Internal Revenue Service, March 21, 1980b.

Witte, A. D. and D. F. Woodbury, "The Effect of Tax Laws and Tax Administration on Tax Compliance: The Case of the U.S. Individual Income Tax," National Tax Journal (September 1985), pp. 1-13.

Yankelovich, Skelly and White, Inc., <u>Tax Attitudes Study: Final Report.</u>
    Prepared for the Internal Revenue Service, 1984.

Yitzhaki, S., "A Note on Income Tax Evasion: A Theoretical Analysis,"
    <u>Journal of Public Economics</u> (Vol. 3, 1974).