# Taxpayer Usage Study, 1997

Data Release

ata from the 1997 Taxpayer Usage Study (TPUS) show that the number of returns filed by the regular (April 15) filing deadline increased by 1.3 percent from 111.7 million for 1996 to 113.1 million for 1997 (Table 1). (U.S. taxpayers living abroad, as well as domestic taxpayers who filed Form 4868, *Application for Automatic Extension of Time to File U.S. Individual Income Tax Return*, have until June 15 to file.) The TPUS data in this article provide estimates based on a random sample of returns received by the Internal Revenue Service (IRS) between January 2 and May 2, 1998. During the last two processing years, approximately 93 percent of all individual returns arrived at the IRS by the end of the last week of April.

The largest increase by type of return filed was in electronically-filed returns. Electronically-filed returns increased from 19.0 million for 1996 to 24.4 million for 1997, an increase of 28.3 percent. The 1997 increase continued the long-term trend of yearly increases in electronic filing (Figure A), with the exception of 1994. The decline for 1994 in electronically-filed returns may have been related to the IRS's revenue protection strategy that applied more stringent checks of taxpayer-reported names and Social Security numbers (SSN's) for an electronic return, starting with that tax year. A consequence was that IRS no longer accepted electronically-filed returns with a missing or mismatched SSN for taxpayers or their dependents.

Taxpayers could file electronically in two ways. In the regular electronic method, a return was prepared on a computer and then electronically transmitted to the IRS. Usually, such returns had to be submitted through an IRS-approved intermediary. For 1997, these returns increased by 28.7 percent. The second method, known as "TeleFile," allowed most taxpayers eligible to file Form 1040EZ (short form) to file their returns using a telephone. Taxpayers were prompted for specific information and entered their information by pressing the appropriate keys on the telephone keypad. For 1997, these returns increased by 27.0 percent.

Computer-prepared returns increased by 11.6 percent, from 68.4 to 76.3 million returns (Figure B); these include all electronically-filed returns, as well as paper forms prepared using computer tax software. For 1997, over 67 percent of all individual income tax returns filed with the IRS were prepared using a computer. Using computers to

This data release was written by Peter Sailer, Chief of the Individual Special Projects Section, and Michael Parisi, an economist with the Individual Returns Analysis Section. prepare returns reduces taxpayer errors. All forms of manually-prepared returns—Forms 1040, 1040A, and 1040EZ—have been declining in recent years.

The number of returns with a Schedule D (Capital Gains and Losses) attached increased from 15.4 to 23.3 million returns, a 51.4-percent gain. Much of this increase can be attributed to changes in the tax law. Prior to 1997, all assets held more than one year were considered longterm for purposes of capital gain taxation and were subject to the same (28 percent) maximum rate. Under the Taxpayer Relief Act of 1997, however, most long-term assets held more than 18 months were taxed at a reduced rate (20 percent or 10 percent, depending on how much other taxable income the taxpayer had). Consequently, in order to determine the percentages of capital gain distributions taxable at each applicable rate, all capital gain distributions from mutual funds also had to be reported on Schedule D. Prior to 1997, certain taxpayers whose only capital gains were capital gain distributions could carry these amounts directly to the front of Form 1040, and did not have to complete or submit a Schedule D. Their capital gain tax, if applicable, could be determined from the Capital Gain Tax Worksheet found in the Form 1040 instructions. (See the 1997 Tax Law Changes section for more details.)

The increase in Schedule D filings was not entirely due to tax law changes. The number of returns showing a capital gain distribution on Schedule B (where any dividends or other distributions in excess of \$400 had to be reported) increased by 30.3 percent. This increase in capital gain distributions may have been related to the significant increase in U.S. stock prices during 1997.

Taxpayers' use of the direct deposit of refund option increased 13.0 percent to 19.6 million returns, or 23.7 percent of all refund returns. Direct deposit eliminates the need for IRS to mail a taxpayer a refund check and for the taxpayer to deposit or cash that check.

### 1997 Tax Law Changes

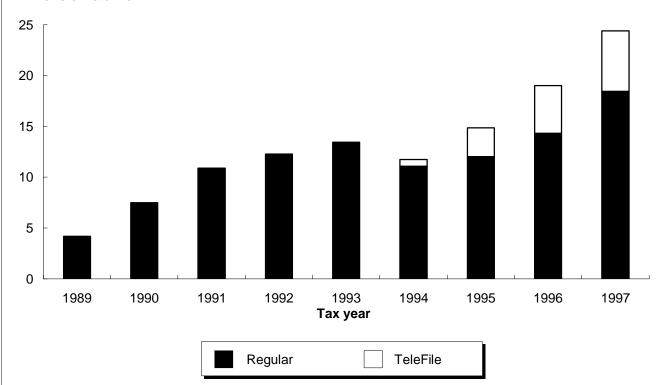
Personal exemptions, tax rate bracket boundaries, the standard deduction, and the earned income credit were all indexed, as required by Federal tax law, to reflect inflation. For example, the value of the personal exemption rose from \$2,550 to \$2,650, while the maximum earned income credit for taxpayers with two qualifying children rose from \$3,556 to \$3,656. Other than indexing, the major tax law changes affecting these statistics were:

Capital Gains.—For capital assets sold after May 6, 1997, but before July 29, 1997, the maximum long-term capital gain tax was reduced from 28 percent to 20 percent

## Figure A

# Number of Electronically-Filed Returns Received by the End of April, Tax Years 1989-1997

#### Millions of returns



(10 percent for taxpayers whose ordinary income placed them in the 15-percent tax bracket). The lower rates continued to apply after July 29, 1997, but only if the asset was held for more than 18 months. A special (25 percent) maximum rate applied to taxpayers with gains resulting from depreciation taken on certain real property. The previous (28 percent) maximum rate continued to apply to property sold after July 28 if the property was held for more than 12 but less than 18 months, as well as to any property sold before May 6. Gains from the sales of collectibles also continued to be subject to the 28-percent maximum rate.

Sale of Principal Residence.—For a sale or exchange of a principal residence after May 6, 1997, a taxpayer could generally exclude from gross income up to \$250,000 (\$500,000 for married taxpayers filing jointly). Only gains on the sale of a principal residence in excess of these amounts were taxable and, therefore, reportable on Sched-

ule D. Under prior law, any gains from the sale of a residence could be taxable, although the gains could be postponed if the proceeds of the sale were invested in a new home within a two-year replacement period; in addition, up to \$125,000 could be excluded once in the lifetime of any taxpayer who had reached the age of 55.

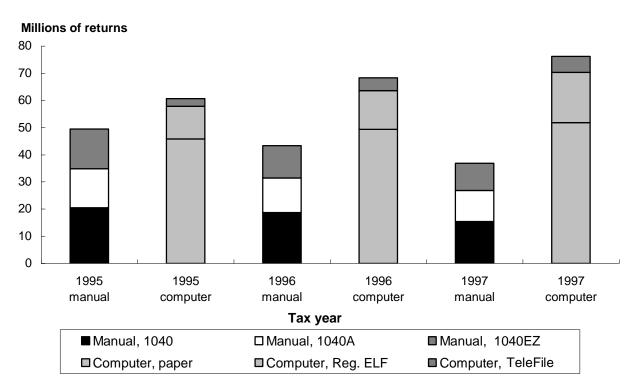
Excess Distributions from IRA's.—The 15-percent tax on excess distributions from Individual Retirement Arrangements (IRA's) and qualified plans was eliminated for 1997. In previous years, this tax (one of the taxes reported on Form 5329) applied to distributions from qualified retirement plans (including IRA's) in excess of \$150,000.

### Data Sources and Limitations

Data for the Taxpayer Usage Study were derived from a daily random sampling of returns as they were received at IRS service centers and lock-box sites from January 2 to

Figure B

# Computer- and Manually-Prepared Returns Received by the End of April, Tax Years 1995-1997 (Manual Returns by Form Type, Computer Returns by Filing Method)



May 2, 1998. From January 2 to March 27, 1998, returns were selected at a rate of 1-in-8,000. For the period March 28 to May 2, 1998, the rate of selection was 1-in-14,000.

The sample size for the entire sampling period from January 2 to May 2, 1998, was 10,655. The sample size for the period January 2 to March 27 was 6,992, and the sample size for March 28 to May 2 was 3,663.

The sample was post-stratified, within each sampling period, by tax return form type (1040, 1040A, etc.). Population counts for each form type were obtained from the IRS Taxpayer Services unit. Weights were computed by dividing the sample size into the population for each form type by sampling period. For the sampling period January 2 to March 27, the weights ranged from 7,881 to 12,987. The weights ranged from 12,356 to 26,796 for the March 28 to May 2 sampling period. Since the data presented in this article are estimates based on a sample, they are subject to sampling, as well as nonsampling,

error. Nonsampling error may be higher for TPUS than for other Statistics of Income (SOI) data because the sampled returns had not yet been subjected to any of the regular IRS or SOI processing steps, which would have corrected many taxpayer errors.

## Sampling Variability and Confidence Intervals

The sample used in this study is one of a large number of samples that could have been selected using the same sample design. The estimates calculated from these different samples would vary. The standard deviation (SD) of an estimate is a measure of the variation among the estimates from the possible samples and, thus, is a measure of the precision with which an estimate from a particular sample approximates the average of the estimates calculated from all possible samples.

The standard deviation may be expressed as a percentage of the value being estimated. This ratio is called the

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coefficient of variation (CV). Estimated percentage CV's for the 1997 estimates are included in Table 1 of this report.

The sample estimate and an estimate of its standard deviation permit the construction of interval estimates with prescribed confidence that the interval includes the population value. If all possible samples were selected under essentially the same conditions, and an estimate and its estimated standard deviation were calculated from each sample, then:

- 1. About 68 percent of the intervals from one standard deviation below the estimate to one standard deviation above the estimate would include the population value. This is a 68-percent confidence interval.
- 2. About 95 percent of the intervals from two standard deviations below the estimate to two standard deviations above the estimate would include the population value. This is a 95-percent confidence interval.

For example, from Table 1, the 1997 estimated number of Returns with Paid Preparer Signature, X, is 61.137 million, and its related coefficient of variation, CV(X), is 0.88 percent. The standard deviation of the estimate, SD(X), needed to construct the confidence interval estimate, is:

SD (X)= 
$$X * CV(X)$$
  
=  $(61.137 \times 10^6) * (0.0088)$   
=  $0.538$  million

The p percent confidence interval is calculated using the formula:

$$X \pm z *SD(X)$$

where z takes the value 1, 2, or 3, when p is 68, 95, or 99, respectively. Based on these data, the 68-percent confidence interval is from 60.599 million to 61.675 million returns, and the 95-percent confidence interval is from

60.061 million to 62.213 million returns.

### Explanation of Selected Terms

(Definitions are shown in order of their appearance in Table 1) Number of Returns by Form Type.--The estimated number of returns received as reported by the Monitoring and Reports Section of the National Director, Submission Processing.

Paid Preparer Signature.--Returns with a paid preparer signature on the "Paid Preparer's Use Only" signature line. Returns showing "VITA" (Volunteers in Tax Assistance), "TCE" (Tax Counseling for the Elderly), or a family member's signature were not considered paid preparer returns.

IRS Bar-Coded Envelope Used.--Returns that were mailed in an IRS preprinted envelope, which showed a bar code above the mailing address or below and to the right of the address. This bar code was used to sort the mail on arrival at IRS service centers. For 1997, an IRS-provided mailing label was also considered an IRS bar-coded envelope.

Refund/Tax Due at Time of Filing Section.--Returns edited for TPUS were not force-balanced, and, therefore, the refund/tax due at time of filing section may not add to all returns. For example, taxpayers not qualifying for having their taxes computed by IRS, but leaving both the "refund" and "amount you owe" lines blank, are not shown.

Zero Balance.--Returns on which tax payments exactly equaled tax liability (including returns with neither payments nor liability).

Earned Income Credit.--Returns with an entry for Earned Income Credit (EIC). The individual classifications refer only to the presence of an entry for EIC and whether the Schedule EIC was attached, and, if attached, the number of qualifying children listed on the schedule. If a return showed an EIC of \$1,000 and no Schedule EIC was attached, the return was included in the data for "No Qualifying Children," even though the amount claimed exceeded the amount that could be claimed without a qualifying child.

Source: IRS, Statistics of Income Bulletin, Publication 1136, Summer 1998.

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Table 1.--Number of Returns Received by the End of April for Tax Years 1996 and 1997, with Selected Filing Characteristics
[All figures are estimates based on samples--number of returns is in thousands]

Characteristics	1996	1997	Percent changes 1996 to 1997	Coefficient of variation (percent of 1997 estimate)
	(1)	(2)	(3)	(4)
All returns	111,694	113,113	1.3	**
Paper returns:	•	•		
All paper returns	92,687	88,725	-4.3	**
Form 1040	53,964	53,741	-0.4	**
Form 1040A	16,722	15,745	-5.8	**
Form 1040EZ	14,039	12,237	-12.8	**
Form 1040PC	7,962	7,002	-12.1	**
Electronic returns:				
All electronic returns	19,007	24,388	28.3	**
Regular ELF	14,323	18,439	28.7	**
Telefile	4,684	5,949	27.0	**
Returns with:				
Paid preparer signature	58,288	61,137	4.9	0.88
Computer-prepared	50,711	52,954	4.4	1.04
Internal Revenue Service label affixed	18,572	14,565	-21.6	2.58
Internal Revenue Service bar-coded envelope used	23,112	19,826	-14.2	2.16
Refund	81,275	82,777	1.8	0.51
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Tax due at time of filing	26,293	26,814	2.0	1.48
Zero balance	2,576	1,802	-30.0	7.85
Internal Revenue Service requested to compute tax	297	383	29.2	17.08
Returns filed by dependents	9,534	9,909	3.9	3.44
Exemption box on line 6a or 6b checked	100,294	101,883	1.6	0.35
Dependents listed as exemptions	40,773	40,483	-0.7	1.32
All dependents listed with Social Security numbers	39,911	40,134	0.6	1.33
Method of recording entries:				
Handwritten	41,737	35,773	-14.3	1.31
Typed	1,570	1,051	-33.1	10.69
Computer-prepared	68,391	76,292	11.6	0.62
Direct deposit of refund	17,374	19,631	13.0	1.67
Payment voucher attached	13,709	14,199	3.6	2.00
Presidential election campaign check "yes"	27,592	27,960	1.3	2.75
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Earned income credit	18,095	18,382	1.6	2.05
No qualifying children	3,744	3,658	-2.3	5.42
One qualifying child claimed	6,928	7,159	3.3	3.50
Two qualifying children claimed	7,423	7,565	1.9	3.33
Child care credit	6,178	5,940	-3.9	4.18
Tax-exempt interest	4,632	4,939	6.6	5.08
Refund: State and local tax	16,911	17,276	2.2	2.35
IRA distributions	6,091	6,614	8.6	4.31
Taxable IRA distributions	5,444	6,146	12.9	4.50
Pensions and annuities	19,094	19,433	1.8	2.26
Taxable pensions and annuities	17,682	17,911	1.3	2.38
Taxable Social Security benefits	6,661	8,319	24.9	3.78
Payments made to an IRA	4,318	3,794	-12.1	5.71
Tax on qualified retirement plan/Form 5329 attached	1,165	723	-37.9	13.27
1997 estimated tax payment/1996 amount applied	11,593	12,902	11.3	2.82
Estimated tax penalty	4,511	4,771	5.8	5.45
Schedule A attached	33,527	33,957	1.3	1.49
State and local income taxes	28,779	29,041	0.9	1.68
Real estate taxes	29,466	29,810	1.2	1.65
Personal property taxes	13,331	13,688	2.7	2.70
Tax preparation fees	12,579	11,868	-5.7	2.95
Other expenses	7,732	7,972	3.1	3.69
Schedule B or 1 attached	34,328	36,590	6.6	1.33
Capital gain distribution	10,393	13,543	30.3	2.76
Nontaxable distribution	1,935	1,818	-6.0	8.79
Form 2106 or 2106-EZ attached	4,245	4,739	11.6	4.80
Schedule C or C-EZ attached	4,245 14,643	14,317	-2.2	2.69
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<sup>\*\*</sup> No coefficient of variation shown because the data items are population counts.