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The Effects of the Computer on the Tax Consultant in the State of Utah

J. Lyle Tuddenham

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THE EFFECTS OF THE COMPUTER ON THE TAX CONSULTANT
IN THE STATE OF UTAH

by

J. Lyle Tuddenham

A report submitted in partial fulfillment
of the requirements for the degree

of

MASTER OF ACCOUNTING

UTAH STATE UNIVERSITY
Logan, Utah
1972
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<td>12</td>
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ABSTRACT

THE EFFECTS OF THE COMPUTER ON THE TAX CONSULTANT
IN THE STATE OF UTAH

by

J. Lyle Tuddenham, Master of Accounting

Utah State University, 1972

Major Professor: Dr. Norman S. Cannon
Department: Accounting

The purpose of this paper was to determine the effects of computerized tax services on tax practitioners in the State of Utah. Initial data was obtained from a questionnaire which was mailed to members of the Utah Association of Certified Public Accountants who were engaged in public practice, and also from personal interviews with various other practitioners. The comparisons of firms which offer services to accountants resulted from a review of current literature and also through direct correspondence.

(36 Pages)
INTRODUCTION

The purpose of this paper was to ascertain the effects of computerized tax services on tax practitioners in the state of Utah. Questionnaires were sent to selected members of the Utah Association of Certified Public Accountants, and direct interviews were conducted with various practitioners to obtain the initial data. Correspondence with several computerized tax service firms was also employed.

This relatively new business began with the advent of a firm called Computax in 1963. Firms have continued to enter the market over the years until there are now approximately fourteen major companies offering services to accountants throughout the country.

Some companies such as H & R Block, Skousen Tax Service Incorporated, and Beneficial Finance Company prepare tax returns for individuals using a computerized process; however, their services are not offered to the practitioner unless he is affiliated with one of those companies. For this reason I have not considered them in this study. Instead, I have endeavored to determine what the other service centers offer the tax practitioner, their frequency of use, and if this use has allowed tax consultants in the state of Utah to increase their volume of business.
Today we live in a dynamic society that is constantly changing and achieving numerous feats that were not dreamed of in the past. The accomplishment of the majority of these feats is due largely to the advent of the computer and its application to the problems of our time. Accountants have realized the impact of the computer on their function in society and have assessed the situation as follows:

The future appears to hold great opportunity, but it also presents a great challenge because we will probably practice in an environment radically different from the present one in many respects. (5, p. 43)

Many accountants and their professional societies have conducted studies to assess the future of the profession in connection with the advent of the computer. One such study concerning the computer and its impact on the profession found it to be great in the present and even greater in the near future.

The results of our studies lead us to believe that in the next few years many more of our clients will look to us to bring the benefits of computers and scientific management techniques to their companies. We also believe that there will be a significant increase in demand for other services, including some which we are not currently qualified to render. Planning is essential if we want to avoid the sudden and chaotic internal changes which would probably result if we attempt to meet this demand without adequate preparation. In fact, any such attempt would probably be futile if we do not take the necessary action now to insure that we have the requisite skills when they are needed. (5, p. 43)
From this and other articles in the current literature, it is evident that at least a few of the practitioners are concerned with the future of the profession and the problems they will have to face in order to meet the challenge of the future. Not only is the computer a challenge to the accountant as an individual, since he must master its use, but also to the services he offers to the public.

**Trend Towards Computer Use**

The tax practice of many accounting firms has been growing basically for two reasons: one, the increasing complexity of the existing tax laws which have forced individuals to seek professional help in complying with the laws of the land to file a tax return; and two, an increase in the population. Combining the current population explosion and the increasing complexities of tax laws, the problems of the practitioner have become almost insurmountable in the volume of work he is required to do. Many sleepless nights, frustrations, and "Excedrinations" have become a common thing during the first quarter of the year, all because of the inability of the practitioners to cope with the increased work load. The situation has grown to such a point that the AICPA has asked the IRS to grant extensions for filing time if the work load of the CPA is such that he is unable to prepare the tax return of his client in time for mailing to the IRS by the due date.
The above noted extensions are one solution to this problem, but they only prolong the agony and are not a solution that will eventually solve the problem. The accountant needs a faster means to accomplish the service he is offering to the public, and the computer appears to be the answer to his problem since it is able to handle repetitious, computational and clerical work at rapid rates.

Another factor that has tended to shift or move the practitioner to the use of the computer is the fact that the IRS is becoming very ambitious in its efforts to completely computerize the tax system. This mechanization, which was developed in the Southeastern Region of the country, is in the final stages of implementation. Many stories dealing with it have grown into a local lore much the same as "Brer Rabbits Briar Patch." Some which have been told are as follows: A frightened washerwoman (annual income of $2,000) received a computer generated deficiency notice asking for some $16,000. One elated individual in the morning received a refund of $30,000 and then was equally dejected when the afternoon mail brought a deficiency notice for the same amount. An accountant received a refund for some $50,000 which he claims was due to a severe thunderstorm which centered over the computer center that day. (6, p. 37)

Many other stories could be told, but with the use of the computer, the IRS is able to review every tax return and determine if a full scale audit is necessary. The very essence of survival suggests
that an individual use a computer to combat this increased threat from the Internal Revenue Service. It is like fighting fear with fear. "If the IRS is going to use the computer to determine which returns will require a full audit, then I'll use one to safeguard my interests."

This is only a minor fact that has contributed to the increased use of computers in the field of tax preparation. The main cause of the trend, as mentioned before, is the work load of the practitioner and the adaptability of the computer to repetitive operations.

**Review of Available Service Centers**

Entrepreneurs have assessed the situation in which the tax practitioner has found himself and are offering services to aid him in the form of computer centers. The practitioner sends the financial information to a center for processing and a few days later receives a completed tax return which is ready for his review and signature. Also included in the package are diagnostics which point out problem areas in the return when compared to norms of that particular area.

The pioneer in this field is a system called Computax which was developed by Computer Sciences Corporation of El Segundo, California in 1963, and marketed in 1964. It is estimated that some 2,000 clients have subscribed to its services around the country with an annual expected volume in excess of 200,000 individual returns.

Entering the computerized tax preparation field in 1965 was a system called Auto Tax. It was developed by a Washington D.C. firm
called Tax Research Institute of America, whose president, Mr. Hubert Hall, estimated initial set up costs to be in the neighborhood of one to two million dollars. These costs include programming and market development.

Firms have continued to enter the field, and today there are approximately fourteen major firms offering services to accountants throughout the country.

The following tables, 1 and 2, provide basic information about the various companies and the services they offer. They also would aid a practitioner in determining which service best fits his particular needs.

John Henery, in an Associated Press story published in the January 10, 1971, Kansas City Times said:

Computer-processed returns are coming into increased favor in small tax return practice. In fact, trade sources estimate that by 1975, 90% of all returns are expected to be processed by computer before going to the Internal Revenue Service. (p. 185)

If this prediction proves to be true, it is within the realm of possibility that a Revenue Agent's prognostication of the future will also be true wherein he envisioned some time in the future when all a practitioner would have to do to complete a return would be to pick up his telephone and call "dial tax." (4, p. 24)
<table>
<thead>
<tr>
<th>Location of Processing Centers</th>
<th>AUTOTAX</th>
<th>BENETAX</th>
<th>COMPUTAX</th>
<th>CTS</th>
<th>DIGITAX²</th>
<th>DYNAXAX</th>
<th>FAST-TAX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years in Operation</td>
<td>Six</td>
<td>One</td>
<td>Eight</td>
<td>Six</td>
<td>Three</td>
<td>Two</td>
<td>Six</td>
</tr>
<tr>
<td>Cities for which Returns are prepared</td>
<td>Michigan cities and New York City</td>
<td>New York City</td>
<td>New York City and all Michigan cities</td>
<td>New York City and all Michigan cities</td>
<td>New York City, Kansas City, and all Michigan cities</td>
<td>New York City, Kansas City, and all Michigan cities</td>
<td></td>
</tr>
<tr>
<td>Basic Form 1040</td>
<td>$4.90</td>
<td>$5 flat charge + .10 per input line</td>
<td>$4.00</td>
<td>$4; average fee for Mark I service is $5; Mark II, $750 and Valu Pak, $2.50; first two drops with volume</td>
<td>$5 + .12 a line in excess of 10 lines</td>
<td>$2.50</td>
<td>$1.00</td>
</tr>
<tr>
<td>All Federal Schedules (A, B, C, D, E, F, G, R, SE, 1040 ES, etc.)</td>
<td>$1. (75 for Schedule G calculation only.) (See above)</td>
<td>.75 each, (A&amp;B count as one schedule)</td>
<td>N/C</td>
<td>(See above)</td>
<td>.60 each</td>
<td>.66 per page (but Schedule C, D &amp; F count as 2 pages, $1.32)</td>
<td></td>
</tr>
<tr>
<td>Additional Charges</td>
<td>.12 per line (See above)</td>
<td>.14 per keypunch card in excess of 15 cards</td>
<td>Mark II - 10 cents per entry over first 30</td>
<td>(See above)</td>
<td>.29 a card for 11-60, .14 a card, cards; .12 a card over 60 cards (2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>State Returns</td>
<td>Usually $3.00 but some states range from $1.25 to $4.50</td>
<td>N/C</td>
<td>$3.00</td>
<td>$1.00</td>
<td>$2.00</td>
<td>$2.00</td>
<td></td>
</tr>
<tr>
<td>City Returns</td>
<td>$2.50</td>
<td>N/C</td>
<td>$2.00</td>
<td>N/C</td>
<td>N/C</td>
<td>N/C</td>
<td>$1.50</td>
</tr>
</tbody>
</table>
### Table 1. Comparison of Available Service Centers (Cont)

<table>
<thead>
<tr>
<th>Minimum Fee or Contract</th>
<th>AUTOTAX</th>
<th>BENETAX</th>
<th>COMPUTAX</th>
<th>CTS</th>
<th>DIGITAX&lt;sup&gt;4&lt;/sup&gt;</th>
<th>DYNATAX</th>
<th>FAST-TAX</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$250.00</td>
<td>$125.00</td>
<td>$250.00</td>
<td>$20 registration fee</td>
<td>$200.00</td>
<td>None</td>
<td>$100.00</td>
</tr>
<tr>
<td>Pro-formas</td>
<td>$1.50</td>
<td>N/C</td>
<td>10% of basic federal return ($1 minimum)</td>
<td>N/C</td>
<td>N/C</td>
<td>$1.25 each</td>
<td>10% of base</td>
</tr>
<tr>
<td>Supplies</td>
<td>N/C</td>
<td>.02 cents per interview sheet</td>
<td>.35 cents per collated set</td>
<td>N/C</td>
<td>N/C</td>
<td>.02 per page</td>
<td></td>
</tr>
<tr>
<td>Claimed Processing Time</td>
<td>5 business days</td>
<td>3 days</td>
<td>4-8 days</td>
<td>24 hours</td>
<td>3 days</td>
<td>3 days guaranteed or return is free Jan. 1-Mar. 14; 2 days, Mar. 15-Apr. 15</td>
<td>32 hours; 16 hours on expedited extra fee basis</td>
</tr>
<tr>
<td>Last Day for Handling Returns</td>
<td>Postmarked April 6, regular; June 6, extension</td>
<td>April 12 regular; June 12 extension</td>
<td>April 13, regular; June 15, extension</td>
<td>Apr. 14 if delivered to center for regular; May 15 for extensions</td>
<td>April 12, regular; June 10, extensions</td>
<td>April 13, regular; June 30, extensions</td>
<td>April 15 for local; April 12 for others; October 15, extensions</td>
</tr>
<tr>
<td>Reprocessing Cost Due to Accountant's Error</td>
<td>60%</td>
<td>50%</td>
<td>Price of basic forms plus applicable schedules (no card charge)</td>
<td>Total Charge</td>
<td>60%</td>
<td>50%</td>
<td>.50 per page plus .02 per card, not to exceed 50% of base; generally 30-40% of base price</td>
</tr>
</tbody>
</table>

1. A keypunch "card" is approximately equal to a "line" on the input form, which is generally a single "item" of information, such as a dividend received.
2. A volume discount is given for returns in excess of 100. The discount ranges from 10% to 20%, depending on volume.
3. On-Line Terminal Systems involve the use of a terminal in the accountant's office with communication of data over telephone lines.
4. Digitax also provides a "LTS" Little Tax Service - for details of which see the schedules appearing on pages 56 and 57.
<table>
<thead>
<tr>
<th>Location of Processing Centers</th>
<th>Keytax</th>
<th>LLT</th>
<th>Multicomp</th>
<th>PTT</th>
<th>Sta-Fed</th>
<th>Synergistic Systems</th>
<th>Unitax</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer centers in Atlanta, Boston, Chicago, and Minneapolis, Multiplexed into Cleveland, Dallas, Denver, Detroit, Houston, Los Angeles, New York, Philadelphia, St. Louis, Tampa and Washington, D. C.</td>
<td>None</td>
<td>New York City</td>
<td>Atlanta, Chicago, Los Angeles, New York, St. Louis, Washington</td>
<td>Des Moines and Cedar Rapids, Iowa; Milwaukee, Wis., Joliet and Chicago, Ill.</td>
<td>Century City, Calif.</td>
<td>Whittier, Calif.; Michigan City, Ind.; San Carlos, Calif.</td>
<td></td>
</tr>
<tr>
<td>Years in Operation</td>
<td>Two</td>
<td>Three</td>
<td>Two</td>
<td>Three</td>
<td>Three</td>
<td>One</td>
<td>Seven</td>
</tr>
<tr>
<td>Cities for Which Returns are Prepared</td>
<td>None</td>
<td>New York City</td>
<td>New York City</td>
<td>New York City, all Michigan cities</td>
<td>None</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Basic Form 1040</td>
<td>$8, to $12, for 1040 + 6 schedules and state return</td>
<td>$5.00</td>
<td>Not charged per page; cost ranges from $1.50 up.</td>
<td>Regular - $3.50-$5, (depending on quantity discounts.) Executax - $10, for 50 lines. Above 50 Returns are charged lines, additional 10c per line.</td>
<td>$4.00</td>
<td>Basic - $3.50; Collated - $4.50.</td>
<td></td>
</tr>
<tr>
<td>All Federal Schedules (A, B, C, D, E, F, G, R, SE, 1040 ES, etc.)</td>
<td>(See above)</td>
<td>.75 each except that Schedule F is not prepared and 1040 ES is $1.00</td>
<td>by total weighted index of transactions with average about .16 per financial transaction.</td>
<td>Regular includes Schedules A, B, E, G, SE, Tax, ES and Form 1116; optional include Schedules C, D, and F with charge of $1 per schedule for these three. Also includes State and City Returns. Charge for Executax is inclusive of all schedules and includes State and City Returns. In both services, deduct 50c if no State return is required.</td>
<td>$4.00</td>
<td>4 services (Executive, Standard, Jet and Budget) with average costs ranging from $2.75 to $6.95. Jet, 25 Standard .35 and Executive, .50 for any worksheet over basic three (A, B, and E).</td>
<td></td>
</tr>
<tr>
<td>Additional Charges</td>
<td>Depends on connect and compute time required.</td>
<td>.13 per card over 10 cards</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State Returns</td>
<td>(See data under Basic Form 1040)</td>
<td>$3.50</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>City Returns</td>
<td>Not prepared</td>
<td>$2.50</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minimum Fee or Contract</td>
<td>$100 initiation fee for contract; $90. min. per mo. after 90 days</td>
<td>$100.00</td>
<td>$500. initial fee of which $300. for regular, executax or a computer applies to processing bination.</td>
<td>$150 minimum processing fee for regular, executax or a computer appeals to processing bination.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pro-formas</td>
<td>N/C</td>
<td>N/C</td>
<td>N/C</td>
<td>N/C</td>
<td>N/C</td>
<td>N/C</td>
<td></td>
</tr>
<tr>
<td>Supplies</td>
<td>N/C</td>
<td>N/C</td>
<td>N/C</td>
<td>N/C</td>
<td>N/C</td>
<td>N/C</td>
<td></td>
</tr>
<tr>
<td>Claimed Processing Time</td>
<td>Time sharing - same day; batch printing- 48 hours</td>
<td>4 days</td>
<td>Same day turn around if printed on accountant's terminal, 30 hours, regular; 72 hours, Executax</td>
<td>24 hours</td>
<td>30 hours basic service 60 hours collated</td>
<td>36-72 hours</td>
<td></td>
</tr>
<tr>
<td>Last day for handling returns</td>
<td>April 15 for regular; any time for extensions</td>
<td>April 9, regular; June 15, extensions</td>
<td>April 14, regular; April 12, executax (if returns dropped at drop point or processing center). June 15 for extensions.</td>
<td>April 15, regular; May 15, extensions</td>
<td>April 12, regular; May 15, extensions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reprocessing Cost due to Accountant's error</td>
<td>$8. to $12.</td>
<td>50%</td>
<td>None</td>
<td>N/C</td>
<td>N/C</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 2. What each service gives you.
(Schedules are listed for each service only if they are 100% computer-printed)

<table>
<thead>
<tr>
<th>Service</th>
<th>Auto-</th>
<th>Benefit</th>
<th>Computer</th>
<th>CPT-</th>
<th>Digita</th>
<th>Dyna-</th>
<th>Fast-</th>
<th>Key-</th>
<th>Multi-</th>
<th>Exec</th>
<th>Regular</th>
<th>Sta-Fed</th>
<th>Basic</th>
<th>Regular</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Form 1040</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Schedules A &amp; B</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Schedule C (incl. SS)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Schedule D</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Schedule E</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Schedule F</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Schedules G &amp; R</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Form 1040 ES</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Instruction Letters</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>State Return</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<td>X</td>
<td>X</td>
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<td>Estimated State &amp; City Taxes</td>
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<tr>
<td>Collating</td>
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<tr>
<td>Schedule 1116 (Foreign Tax Credit)</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Schedule 2106 (Employment Expenses)</td>
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<td>X</td>
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<tr>
<td>Schedule 2119 (Sale of Residence)</td>
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<tr>
<td>Schedule 2119 (Underpayment of Estimates)</td>
<td>X</td>
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<td>Schedule 2440 (Sick Pay)</td>
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<td>Schedule 2940 &amp; E (HR 10 Plan)</td>
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<tr>
<td>Schedule 3468 (Investment Credit)</td>
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<tr>
<td>Schedule 3903 (Moving Expenses)</td>
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<td>Schedule 4136 (Casa Oil Tax Credit)</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<td>X</td>
<td>X</td>
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<tr>
<td>Schedule 4137 (FICA On Tips)</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<td>X</td>
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<td>Schedule 4215 (Investment Credit Recap)</td>
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<td>X</td>
<td>X</td>
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<td>Schedule 4622</td>
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<td>X</td>
<td>X</td>
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<tr>
<td>Schedule - Installment Sales</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<td>X</td>
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<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Schedule - Notes</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<td>X</td>
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<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

**Footnotes to Chart**
1. Limited to standard deduction and income from wages, dividends, interest and miscellaneous sources.
3. Accountant must check his own addition.
4. Depreciation schedule not computed.
6. Additional charge of $1.
7. You do all calculations (except the tax) which are then checked
8. You calculate only depreciation which is then checked
9. Alternative tax computed
10. State estimates only
11. Effective 1 March 1971
12. SE only
13. Computation only. In the case of Schedule D only alternative tax is computer printed.
Preparation of the Return

The preparation of the return using the accountant and computer team is divided into two areas - the functions of the accountant and those of the computer service. It is necessary to divide it in this manner since the computer services, at least for the present time, are not offered to individuals, but only to accounting practitioners.

I mention the preparation, not to describe a system, but to illustrate the savings and advantages of utilizing computer services in the operation of a firm. The initial steps of a computerized return are much the same as a manual system. The client comes to the accountant for the purpose of having his return prepared. He is interviewed by the accountant, who obtains the necessary information and records it on an interview form which has been designed to facilitate the use of the computer. The accountant then sends this information to the computer center where it is key punched and verified for processing with the program which is so written that the deductions are computed using three different methods. These methods are the standard deduction, minimum standard deduction, and itemized deduction. The computer chooses the best method and determines whether it is advantageous to file a separate or joint return, in the case of a married taxpayer. The effects of income averaging are also considered.
The results, along with diagnostics which point out problem areas, are sent to the accountant, who reviews the return for theory and completeness. If he is satisfied, he then signs his name as the sole preparer of the return and forwards it to the client for his signature. The computer center functions as an agent of the accountant for the purpose of translating the input information into the form of a tax return ready for signing. For this reason it does not assume the responsibility for theory review or co-sign the return as a preparer. In one sense, the computer service is a giant adding and calculating machine which is at the disposal of the accountant.

Advantages of Using a Computer

The most significant advantage in the use of a computer for tax return preparation is the savings in time. To illustrate this, it is necessary to contrast the preparation of a manual system return with that of the accountant-computer team. Refer to Table 3.

Table 3. How long does it take to prepare a return

<table>
<thead>
<tr>
<th>Step</th>
<th>Time spent in hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Gathering and assembling all data on worksheets, excluding the actual preparation of the return itself.</td>
<td>1.7 Acct. 0.1 Clerk</td>
</tr>
<tr>
<td>2. Preparing the return from all information available.</td>
<td>1.1 Acct. 0.1 Clerk</td>
</tr>
<tr>
<td>3. Reviewing for theory.</td>
<td>0.5 Acct. 0.1 Clerk</td>
</tr>
<tr>
<td>4. Reviewing calculations</td>
<td>0.3 Acct. 0.1 Clerk</td>
</tr>
<tr>
<td>5. Preparing, reproducing, and collating the final return.</td>
<td>0.7 Acct. 1.1 Clerk</td>
</tr>
</tbody>
</table>

(8, p. 24)
The cost of the service to him is really not a material factor since the average cost for federal returns is approximately $8 to $12, with a maximum of $25. The big savings is in the area of time; but with the use of a computer service for computational and clerical needs, the dollars saved are still something to consider.

Accuracy is another consideration in using the service. Providing that correct data is fed into the computer, calculation errors and embarrassing situations are eliminated. The practitioner does not have furious clients come back and complain that they have received a notice from the IRS stating that a computational error was made on their return. Some of the areas where the computer's computational abilities have been applied are:

A. FICA tax overwithheld
B. Dividend received exclusion and credit
C. Retirement income credit
D. Foreign tax credit
E. Investment credit
F. Lowest tax, including alternative method of figuring capital gains
G. Tax reduction due to income averaging.

Besides making the needed calculations, the computer gives added service to its clients by checking the return for missing information; for example, name, address, social security number,
occupation, and unanswered questions. This is an advantageous service since small details are easily overlooked. It also checks for inconsistencies of information such as a single taxpayer showing a social security number for a wife, or a rent schedule is shown and no depreciation schedule is attached. Revealing areas of possible tax reduction on a diagnostics sheet is another service given to the practitioner. An example of this service is where a taxpayer is over 65, and he qualifies for the retirement income credit. The advantage of filing a joint or separate return, in the case of married taxpayers, is another example which falls into this category. The most beneficial service is to the accountant himself and his relief of the routine clerical and procedural aspects of actually preparing the return. This is an enormous factor which should reduce the tendency to develop ulcers when a last minute rush job arrives at the office.

One Certified Public Accountant, Mr. George E. Hunt, Jr., has said: "The computer is here to stay and the quicker we adapt, the better. We will always be involved in certain hand work on the 'uncommon' tax return, but where we can use this 'friendly machine' to help, I believe that we should."

(11, p. 80)

Ethical Questions

When an outside service is used, there arises the question of ethics. Is it ethical for a CPA to use an outside service and still keep a strict fiduciary relationship with his client? The AICPA's
The use of the computer eliminates steps 2, 4, and 5 on Table 3 resulting in a savings of 2.1 hours for the accountant and 1.3 hours of clerical time. With this savings of time the accountant could very easily increase his practice to unthought of volumes and thus increase his profits.

An advertising brochure which I received from Computax analyzes the preparation of returns as follows:

Table 4. The Accountant-computer team

<table>
<thead>
<tr>
<th></th>
<th>Manual</th>
<th>Computer Without Pro Forma</th>
<th>Computer With Pro Forma</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparation</td>
<td>107 mins.</td>
<td>28 mins.</td>
<td>18 mins.</td>
</tr>
<tr>
<td>Checking</td>
<td>24 mins.</td>
<td>10 mins.</td>
<td>6 mins.</td>
</tr>
<tr>
<td>Review</td>
<td>12 mins.</td>
<td>7 mins.</td>
<td>7 mins.</td>
</tr>
<tr>
<td>Total Professional Time</td>
<td>143 mins.</td>
<td>45 mins.</td>
<td>31 mins.</td>
</tr>
</tbody>
</table>

If either prediction became a reality the accountant can save time by using a computerized tax service, and thus enable him to increase the volume of his business. Also since less time will be required, he will be able to review his present clients' tax problems and recommend appropriate planning techniques. This should be a more satisfying area of his practice than the routine return preparation.
committee on standards has said the following:

If a member utilizes outside services to process tax returns or other information, he may not, in the opinion of the committee on professional ethics, delegate his responsibility to insure the confidentiality of such information. He must take all necessary precautions to be sure that the use of outside services does not result in the release of confidential information. He should also consider the desirability of putting the client on notice when outside services are to be used. (1, p. 66)

This problem can be solved in two ways. The firm itself could install computer equipment and process returns, or fail to include the name of the client on information supplied to the outside service. It would be very easy to type this personal information on the return when it is returned to the office for review. The first solution would bring prestige to the firm, but with it would come a multitude of new problems; problems such as financing, staffing, administration, etc. which are associated with the start up of a new business. If these management problems are combined with the high cost of computer equipment, the method of eliminating names from information sent to a service center would, in most cases, be the most practical.

The severity of the ethics question is illustrated by a quote from an Associated Press article of January 1971.

H & R Block, by far the largest company of the tax return business, says that names and addresses of its clients were made available to a life insurance and mutual funds subsidiary it operates jointly with Prudential Life Insurance Company of Los Angeles. (9, p. 188-9)
A partial solution to this disclosure of confidential information resulted when the 1971 Revenue Act was passed. It provides criminal penalties for tax return preparers who make unauthorized disclosures of information or use such data for other purposes. IRS authorities have indicated that the use of computerized tax return services under prescribed conditions does not violate the nondisclosure requirements, but that both the preparer and the computer service will be subject to penalties for unlawful use or disclosure of the information. (12, p. 31)

For these reasons, a tax practitioner should employ appropriate means of guarding the client's information whenever computer service centers are utilized.
PROCEDURES

Selection of Sample

The data, which is discussed in the findings section, was obtained from tax practitioners - namely CPAs, by means of the questionnaire which is illustrated in the Appendix. It was mailed on January 15, 1969, to selected members of the Utah Association of Certified Public Accountants who were in public practice at that time and were either single practitioners, managing partners of a public firm, or the partner in charge of the Tax Department of a public firm. This was done in an attempt to obtain the opinions and attitudes of those who were actively engaged in the tax preparation area.

Discussion of Questionnaire

The questionnaire was a two page form which required check marks in appropriate boxes or blanks. This should have reduced the time required to complete the form, and hopefully increase the rate of response. However, at the time the questionnaire was mailed, relatively little had been written in the current literature about computerized tax return preparation, and only a few practitioners in the state of Utah had used the available services. I feel that this "newness" factor influenced the rate of response more than the ease
of completing the questions. It is also reasonable to assume that if an individual had an interest in a subject, or has tried something new, he is more willing to discuss it than if he has no interest or has had no experience in that subject area.

In an attempt to influence the rate of response, I included a stamped and self-addressed envelope to all CPAs who were included in the sample. Another factor which was intended to stimulate response was the inference that the questionnaire would not, in any way, be linked to a respondent. There were no identifying codes or marks on the questionnaire ... thus a strict confidence of answers was achieved. The only identification I was able to obtain were the city postmarks from which the questionnaires were mailed. I assumed that the questionnaires were sent to the same cities from which they were returned. Many CPAs returned their questionnaires along with comments on their letterhead.

Response and Follow-up Interviews

Responses to the questionnaires were obtained from the following areas:

<table>
<thead>
<tr>
<th></th>
<th>No. Mailed</th>
<th>No. Received</th>
<th>Percent Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salt Lake City</td>
<td>55</td>
<td>22</td>
<td>40%</td>
</tr>
<tr>
<td>Ogden</td>
<td>10</td>
<td>4</td>
<td>40%</td>
</tr>
<tr>
<td>All other areas of</td>
<td>12</td>
<td>5</td>
<td>41.7%</td>
</tr>
<tr>
<td>the state</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>77</td>
<td>31</td>
<td>40.26%</td>
</tr>
</tbody>
</table>
A net response percentage of 40.26 results when all locations are considered. This may appear to be a low response factor, but when it is compared to a study conducted by the AICPA, it was equal to the responses which they received. (7, P. 46) This is especially significant since the questionnaire which I sent was two pages in length and requested some commentary answers. Both factors could tend to decrease the response rate.

Statistical analysis was considered, but the validity of values obtained by that means is restricted because of the relatively small sample size. Small when considering the sample as a number, 77, but significant when compared as a percent of the total population which was estimated to be 150 active practitioners. This results in a sample of approximately fifty one per cent. Since the answers to the questionnaire could not be statistically quantified with the desired reliability, a follow-up sample was selected, and personally interviewed. Surprisingly, this second study revealed similar answers to questions and a comparable split of opinion when asked if computerized tax returns were an aid or deterrent to a tax practice. This second sample also indicates that a greater degree of reliance can be placed on the answers to the original questionnaire.
FINDINGS

Preparation Time

The time required to prepare a tax return was the first item covered by the questionnaire. When all phases of return preparation (interview, computations, typing, review for theory, and verification of computations) were considered, those responding to the questionnaire averaged 4.2 hours per return. This is slightly less than the average time from Table 3, and greater than the accountant-computer team from Table 4. Perhaps a more complex return is being prepared by the respondents than was considered by Computax, who was the source of Table 4. At any rate, the average return is within a relevant range which would lend itself to mechanization. If mechanization were used, respondents indicated a time savings factor of approximately fifty per cent would be realized. A practitioner should be able to increase his volume of business if he is able to reduce return preparation time by approximately fifty per cent. When it is pointed out that the time saved is the routine drudgery type of time, a practitioner should welcome this new tool.

Cost Savings

Questions 2 and 10 of the questionnaire were intended to determine the existence of any cost savings or increases resulting from
mechanization. However, the two questions were apparently misunderstood since the majority of respondents used the same amounts for both questions. The indicated amounts also closely resembled fees which are charged to clients for tax preparation in this area. Therefore, no significant findings were made.

**Computer Usage**

Forty per cent of those responding to the questionnaire had, in the past, used a computer service center for return preparation, and over sixty per cent of that group said that the results were not satisfactory because of the following:

1. Turn around time (3-4 days) was the major complaint of the tax consultants in this group. In their opinion the service centers were too far away from Utah causing the lengthy turn around time.

2. Overhead expenses increased as a result of postage, processing fees, supplies, etc.

3. Error correction is difficult. When an error occurs, the return must be reprocessed, and this increases the costs to the accountant and the time which he has the return in his possession. To eliminate this problem, care must be exercised in completing the data processing input sheets, since anything input on a wrong
line causes the prepared return to be in error. A data processing phrase describes this as, "Garbage in, garbage out." The only legitimate complaint in this area then, is when the taxpayer fails to disclose information which is vital to the return. Even in that instance, the consultant must take part of the blame since either his interview was substandard or he failed to adequately train his client to retain pertinent tax information where it can be timely located.

Justification can be made to charge the client for a return resulting from omitted information, etc. but the consultant must absorb the reprocessing costs resulting from input errors.

Training

The input errors discussed above lead to the next area covered by the questionnaire - that of training. An average of 4.7 hours were used by respondents to train themselves or their staff in the usage of computer services. That amount of time should be adequate for familiarizations with the various input forms and locations of major input requirements.

Ethics

An area which received significant comment from the respondents was that of ethics. Ninety per cent of those responding indicated that
it would be ethical to use an outside computer service to process tax returns. This same group also indicated that the client should be informed of the service centers use, and only ten percent felt that a signed release form should be used. To summarize the findings in this area, the majority of the respondents indicated that it is ethical to use outside computer services for return preparation.

**Business Projection**

The final area covered by the questionnaire was the application of mechanized tax returns to the tax consultants' business. Ninety per cent of the respondents either said the computer would not allow them to increase their volume of tax practice, or that they were not interested in increasing this facet of their business. I received the impression that some CPAs have a strong dislike for tax work and would prefer to eliminate it from their practice. There appeared to be more emotions expressed in answering this question than any of the others in the questionnaire. For example one respondent from the Salt Lake City area said, "I have no desire to increase tax return volumes (individual return). In fact I would rather not do them."

Is the computer an aid or a deterrent to a tax practice? Respondents, who had a positive or negative opinion, were split evenly on this question. Fifty per cent said it was an aid, while the remaining fifty percent said it was a deterrent. Others indicated
that they were not sure or were undecided as to its effects on their practice at this time.
CONCLUSIONS

When considering the responses to the question, "Do you feel computerized tax services are an aid or a deterrent to your practice?"

I have come to the conclusion that the effects of the computer on the tax consultant in the state of Utah have not yet been fully determined or realized at this time. It has had some effect since a few of the practitioners have an opinion; some for and some against, while others straddle the fence and are undecided. Perhaps it is a little premature to assess its full effect. Computerized tax services are relatively new, and widespread use has not yet occurred, mainly because of the distance to the major service centers and the fact that very few of them complete a tax return for this State.

When these obstacles are overcome, the computer, in all probability, will have a greater effect than has currently been experienced. This will also depend upon the use to which the tax consultant places this great technological tool. His use of the computer could even determine his future in the society in which we live. He has the upper hand at the present time since he is already acquainted with the problems of his clients and is trained in the interpretation of the data he receives. The challenge arises: will
the accountant prepare himself technically to the point where he will be able to communicate with the computer and put it to an even greater use?
LITERATURE CITED


APPENDIX
January 15, 1969

Dear Mr. ________

For a Master's Degree at USU I am endeavoring to determine the effects of the computer on the tax consultant in the state of Utah.

Since there has been very little written about this subject in the current literature, I would appreciate you taking a few minutes of your time to complete the enclosed questionnaire. In most instances all that is required is a check mark in the appropriate blank; however, feel free to comment on any question or other aspect of the subject you feel to be important, which is not included in the questionnaire.

For your convenience, I have enclosed a stamped, self-addressed envelope for the return of the questionnaire. Thank you very much for your help.

Very truly yours,

J. Lyle Tuddenham

JLT:jat

Enclosures
1. Approximately how much time do you spend to prepare a manual return?

<table>
<thead>
<tr>
<th>Time Spent In Hours</th>
<th>Accountant</th>
<th>Clerk</th>
<th>Partner</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Gathering and assembling all data on worksheets, excluding the actual preparation of the return itself.</td>
<td>_____</td>
<td>_____</td>
<td>_____</td>
</tr>
<tr>
<td>B. Preparing the return from all information available.</td>
<td>_____</td>
<td>_____</td>
<td>_____</td>
</tr>
<tr>
<td>C. Reviewing for theory.</td>
<td>_____</td>
<td>_____</td>
<td>_____</td>
</tr>
<tr>
<td>D. Reviewing calculations.</td>
<td>_____</td>
<td>_____</td>
<td>_____</td>
</tr>
<tr>
<td>E. Preparing, reproducing, and collating the final return.</td>
<td>_____</td>
<td>_____</td>
<td>_____</td>
</tr>
</tbody>
</table>

2. Approximately what is your average cost per manual return? _________

3. Approximately what percent of your tax service is:
   - Individual: _______
   - Partnership: _______
   - Estate & trusts: _______
   - Corporations: _______

4. In which of the following years did you use a computerized tax service?
   - 1964: _____
   - 1965: _____
   - 1966: _____
   - 1967: _____

5. If you have not used a computerized tax service in prior years, do you anticipate using one this year? YES _____ NO _____

6. If you have used a computerized tax service in prior years, were the results satisfactory? YES _____ NO _____ Comments:

7. Which tax service did you use? __________________________________________
8. If you did use a computer service, what types of return(s) did you have the service prepare for you:

   Individual____
   Partnership____
   Estate & trusts____
   Corporations____

9. Approximately how much time is saved by using a computerized tax service? ____ Hours.

10. Approximately what is your average cost per computer return?________

11. Approximately how much time was needed to train personnel to adapt to the use of the computer service? (Filling out interview form, etc.)____ Hrs.

12. Since you are in possession of privileged information, do you consider it ethical to use a computerized tax service to process this information? YES____ NO____ Comments:

13. When using an outside computer service, do you notify the client that this service is being utilized? YES____ NO____

14. When using an outside computer service, do you have the client sign a "Statement of Authorization" allowing you to use that service? YES____ NO____

15. Do you feel that computerized tax services have allowed you to increase your volume of business? YES____ NO____

16. Do you feel computerized tax services are: ____ An aid to your practice ____ A deterrent to your practice

Comments:
VITA

John Lyle Tuddenham

Candidate for the Degree of

Master of Accounting


Major Field: Accounting

Biographical Information:

Personal Data: Born at Logan, Utah, April 10, 1941, son of J. Rolfe and Ruby G. Tuddenham; married JoAnn Allen February 2, 1968; two children - Darren, Shaun.

Education: Graduated from South Cache High School in 1956; received the Bachelor of Science degree from Utah State University - with a major in Accounting, in 1966; did graduate work in Accounting at Utah State University, 1966-67; completed requirements for the Master of Accounting degree at Utah State University in 1972.