SMALL ESTABLISHMENT SERVICE

INDEPENDENT INSURANCE AGENTS

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SMALL ESTABLISHMENT SERVICE

INDEPENDENT INSURANCE AGENTS

JANUARY 1980

INDEPENDENT INSURANCE AGENTS

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1 INTRODUCTION

I INTRODUCTION

- This report is produced by INPUT as part of the Small Establishment Service (SES). The report covers the selection and use of information processing equipment, services, and supplies by small insurance agents. Insurance agents comprise the bulk of establishments in SIC (Standard Industrial Classification) 64 (Insurance agents, brokers, and service). The products and services include:

  - EDP equipment.
  - EDP services.
  - Office equipment.
  - Office services.
  - Communications equipment.
  - Communications services.
  - Supplies.

- Independent establishments and branches of large companies were studied for this report and analyzed separately.

- The small establishments were analyzed and reported upon by size categories of:

  - 1-19 employees.
  - 20-99 employees.
  - 100-499 employees.

  These categories match federal statistics found in "County Business Patterns," Bureau of the Census, Washington, D.C.

- A special analysis examined the purchasing process from the corporate viewpoint as it applies to the branches. Corporate headquarters of insurance agencies contacted for this study were interviewed concerning their role in the purchasing of branch:

  - EDP equipment.
  - EDP services.
  - Communications equipment and services.
  - Office equipment.
  - Supplies.

- A list of information sources which supplement INPUT's primary research for this study is included as Appendix A.

- Definitions and terms used in the interviews and in this report are listed in Appendix B.

- A listing of vendors who claim to service insurance agents is contained in Appendix C. The list was compiled from a survey conducted by the Insurance Institute for Research.

- Research for this report included a series of telephone interviews carried out in July and August 1979, as described in Appendix D.

- The questionnaire used for the agency and corporate headquarters interviews constitutes Appendix E.

- Inquiries and comments on the information presented in this report are invited from clients.

II EXECUTIVE SUMMARY

II EXECUTIVE SUMMARY

A. KEY CONCLUSIONS

- INPUT estimates that, in 1978, small establishments in SIC 64 (the independent insurance agents, brokers, and insurance service companies) spent $363 million for information handling equipment and services. This includes:

  - EDP equipment, services, and supplies — $ 91 million
  - Office equipment — $ 78 million
  - Communications equipment and services — $194 million

- The $91 million spent by the small establishments for EDP equipment, services, and supplies is about 22% of the potential in this marketplace.

- The industry is paperwork intensive and service oriented and has accepted automation readily as the major driving force for increasing productivity and providing improved service.

- Industry specific applications will be implemented increasingly at the agent level as DDP proliferates and intelligent terminals and systems become affordable by even the smallest agent.

- Many companies are currently considering which applications to distribute to the agents and which to implement centrally. INPUT believes that, within the coming five years, the applications that provide service to the customer will be implemented at the agent level.

- The insurance industry was a primary target of the word processing vendors in the beginning and should continue to be a major market area. One-third of the respondents had word processing equipment, and as word processing becomes another application on a multiuser, multitasking small system, its penetration will increase dramatically.

B. INDUSTRY STRUCTURE

- Insurance is sold through salespeople and/or organizations called agents or agencies.

  - These agents or agencies can be independent or "semi-independent."

  - The independent agent can sell the policies of several companies and usually can handle many lines of insurance.

  - The "semi-independent" agent or company agent is frequently an independent businessman, but handles only one insurance line for one company.

  - The interviews for this report were conducted only with independent agents handling multiple lines for several companies.

- Life insurance is primarily sold by company agents; while property and casualty insurance is sold primarily through independent agents.

- This is changing slowly as more and more property and casualty insurance carriers are selling policies through company agents.

- The other types of establishments that are included in SIC 64 and, therefore, interviewed for this study are insurance brokers, rating bureaus, and reinsurance companies, but they constitute a small portion of the SIC major group compared to the independent insurance agencies.

- Premium income for the industry is split equally between life insurance and property and casualty insurance (Exhibit II-1).

  - Commission revenue to the agents is derived from premium income and varies by company and by insurance line, but averages about 20%.

  - Commissions are higher on life insurance and are higher during the first years of a policy's life than in subsequent years.

- SIC 64 covers the employment of about 361,000 people, approximately one-third of whom are agents and the remainder support personnel.

  - These people are employed by about 71,000 establishments scattered across the country in a pattern very similar to the population pattern estimated in 1977.

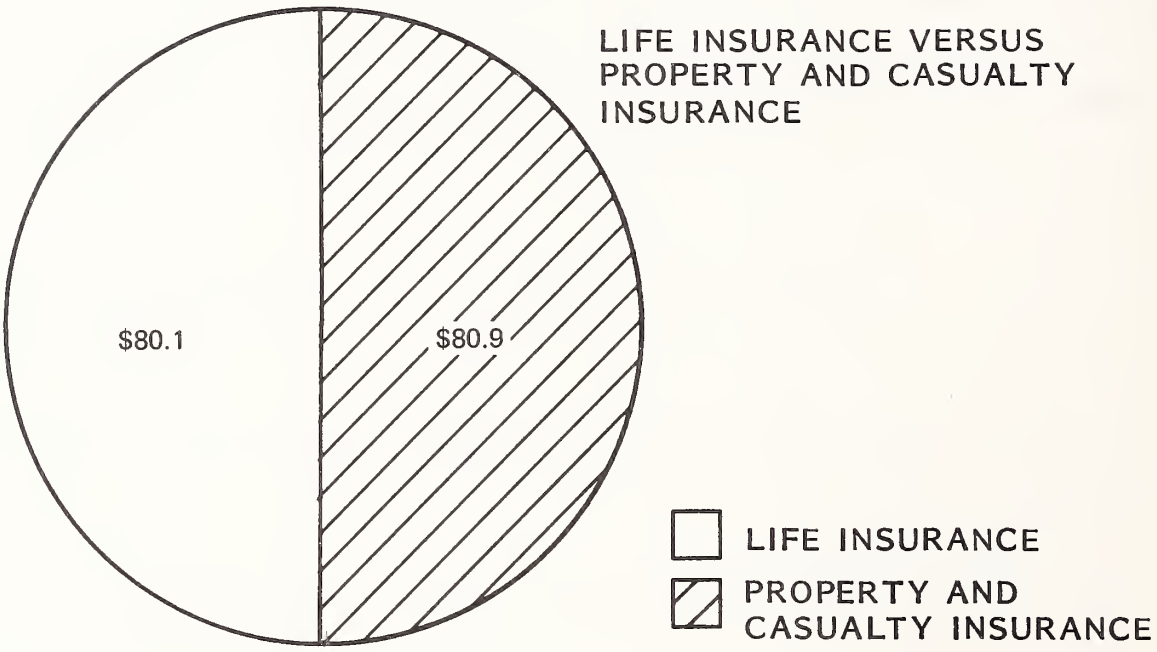
- INPUT estimates the revenue of establishments comprising SIC 64 was between $30-35 billion in 1978, most of which came from commission on premiums.

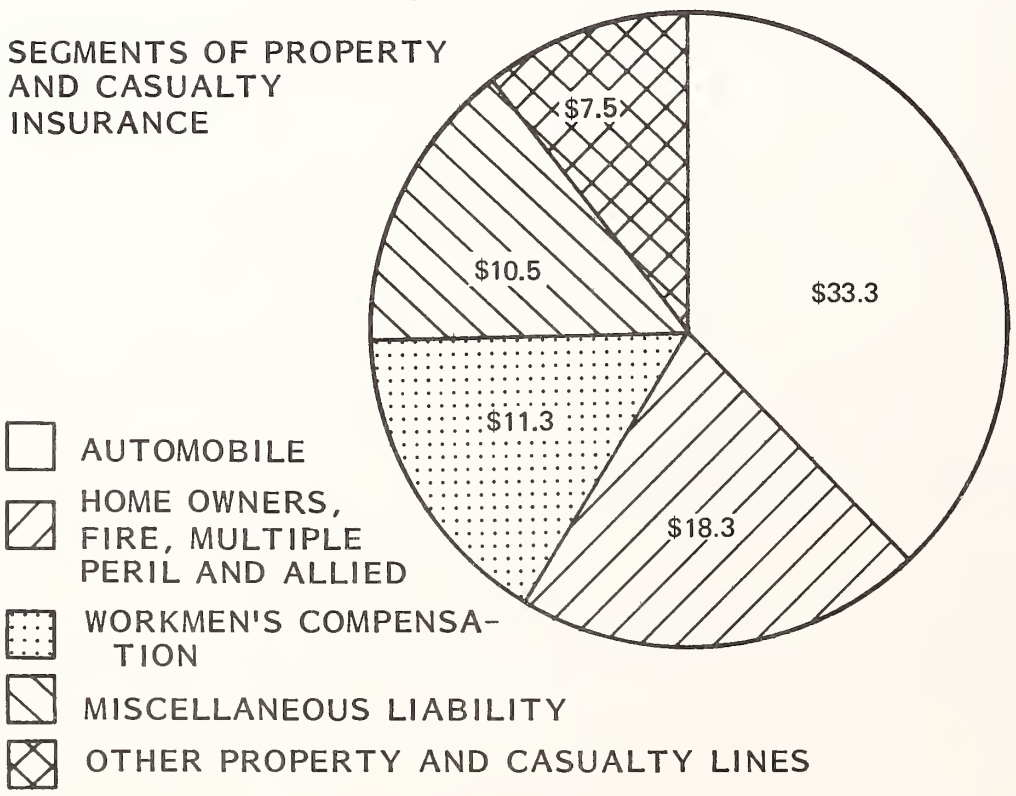
C. EQUIPMENT AND SERVICES MARKETS

- The driving force for increasing automation during the next five years is the desire to increase productivity in the field.

EXHIBIT II-1

1978 PREMIUM INCOME DISTRIBUTION
($ BILLION)





- This is a very paper and information oriented industry, both of which conform well with current and new automation packages.

- A secondary driving force is to provide new and improved services to the customer, hopefully maintaining or increasing the perceived competitive edge.

  - Increased data analysis helps in the planning of products more suited to the needs of the perceived customer than was possible before.

  - The push behind these driving forces will come from the insurance carriers who need to provide better service and new products, and from systems with increasing versatility along with lowering costs.

- Overall spending for information handling equipment, services, and supplies will increase from $363 million, spent in 1978, to $945 million during 1983, a 21% AAGR.

  - EDP equipment, services, and supplies 30%

  - Office equipment 22%

  - Communications equipment and services 15%

- These projections assume no major economic downturn during the five year period. If there is a major recession, but not big enough to be a depression, the growth should slow to about one-half the projected figures.

D. APPLICATION NEEDS

- The applications that provide quicker turnaround time to the customer will be implemented first. They include:

- Sales proposal preparation.

- Claims processing.

- Policy status.

- Policy writing.

- In addition, the communications packages that facilitate the passage of information between agencies, carriers, brokers, and reinsurance companies will be in demand.

- As equipment and attitudes become more sophisticated, attempts will be made to integrate the EDP functions and automated office functions with the communications and distribution functions.

  - This integration is taking place experimentally in the offices of the large insurance carriers. Its effect will be felt in all field operations within five years and will result in the acquisition of new equipment and increased use of communication services.

E. RECOMMENDATIONS

- Vendors should:

  - Study the insurance industry as a whole, study the paper and information flow, decide where their current product line fits, and plan applications or equipment that will increase productivity anywhere along the flow.

- Provide application packages that will increase the service an agent can provide his customers. These can be provided on standalone equipment or on a service basis.

- Word processing vendors should consider expanding their product line to include data processing capabilities and word processing functions on a multiuser system.

- Prospects for various levels of equipment or service can usually be identified through the major carriers.

  - The carriers want the agents to sell their products and will help make it easier for the agent to do business with their company.

- All vendors to this industry should keep abreast of the progress of the Insurance Institute for Research (IIR) in White Plains, NY.

  - Purchase its "Agency Automation Guide" in order to better understand the advice being given an agent and to know how the agent will evaluate the vendor, his products, and services.

  - Participate, if possible, in the IIR's networking project. This ARPA-like network will permit any agent's terminal to intelligently communicate with any carrier's system regardless of the protocol employed. This will eliminate the need for large agents to have several terminals, one for each of the major carriers they do business with.

- The insurance industry will be involved at the forefront of all major office automation and electronic mail developments. Maintain a close rapport with at least one major carrier and, perhaps, partly invest in pilot projects that pertain to communications with field operations.

- Understand that the purchasing process is very centralized in corporate headquarters even if the home office's main business is not insurance. Study the purchasing process and maintain an open line of communications with both the insurance branch and headquarters purchasing.

III INDUSTRY STRUCTURE

III INDUSTRY STRUCTURE

- The insurance industry is usually split into two major divisions - life insurance and property and casualty insurance. Many industry publications have two separate editions, each addressed to a specific field.

- Another division, used by the federal government for SIC grouping purposes, separates the industry between insurance carriers and insurance agents and brokers (Exhibit III-1).

  - Caution must be exercised when using this division because the insurance agent grouping includes only independent insurance agents and not those agents that are employees of a particular company or insurance group.

  - Independent insurance agents can represent more than one company and can sell more than one type of insurance.

- This report concerns only SIC 64, the insurance service sector. The types of establishments included in this sector, in addition to independent insurance agents, are:

  - Independent insurance laboratories.

  - Independent insurance adjusters.

EXHIBIT III-1

ORGANIZATION OF INSURANCE INDUSTRY
BY SIC CATEGORIES
1976 DATA

SIC	DESCRIPTION	NUMBER OF ESTABLISHMENTS	EMPLOYEES
63	INSURANCE CARRIERS	29,814	1,081,555
631	LIFE INSURANCE	15,732	510,482
632	MEDICAL SERVICE AND HEALTH INSURANCE	1,426	99,424
633	FIRE, MARINE, AND CASUALTY INSURANCE	6,860	361,459
635	SURETY INSURANCE	426	5,813
636	TITLE INSURANCE	1,726	32,491
637	PENSION, HEALTH, AND WELFARE FUNDS	3,323	64,308
639	MISCELLANEOUS INSURANCE CARRIERS	161	5,683
64	INSURANCE AGENTS, BROKERS, AND SERVICE	71,588	360,994

- Insurance information bureaus.

- Loss prevention services.

- Rate making organizations.

- Insurance patrol services.

- Insurance consultants.

- While some statistics are available on the breakdown of the organizations by the number of employees (Exhibit III-2), very little information is available concerning the insurance agents alone.

  - About 34,500 agencies are members of the Independent Insurance Agents of America. This organization represents about 126,000 agents and over 250,000 employees.

  - Other professional groups represent substantial numbers of agents, but there is no way of determining the membership overlap between the groups. In addition, these groups represent all agents, not only independent agents.

- This report is primarily concerned with the use of automation in the offices of independent insurance agents.

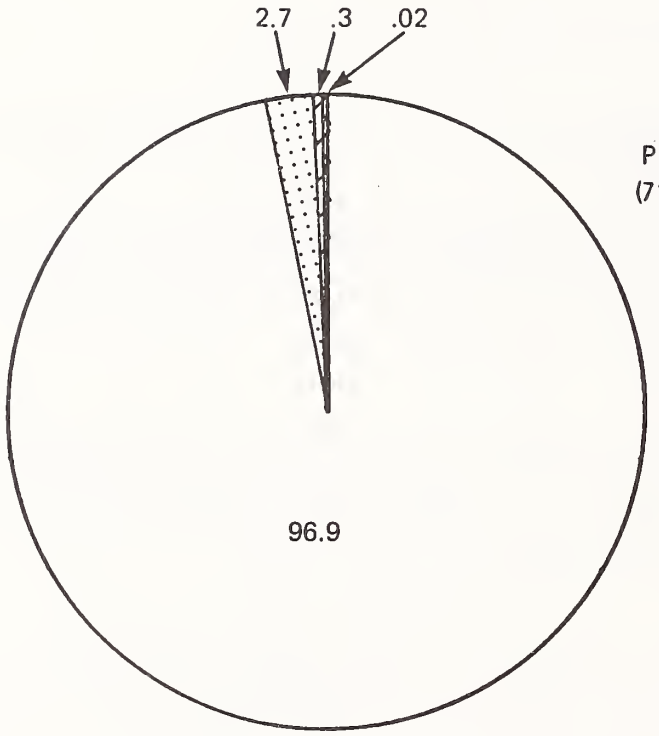
  - Independent agencies are frequently branches of companies that have little to do with insurance. For example, Walt Disney Productions, Inc. owns a Florida insurance agency.

- Two approaches were used to determine the $30-35 billion revenue range which INPUT estimates for establishments contained in SIC 64 in 1978.

EXHIBIT III-2

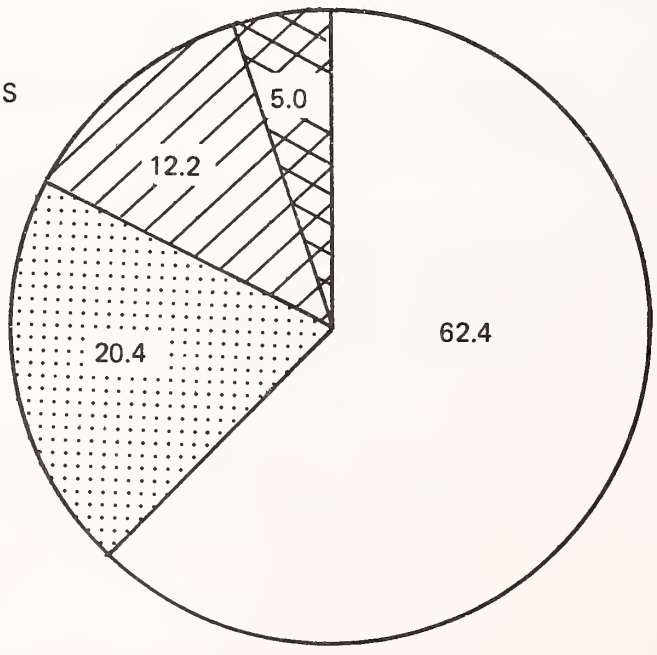
STRUCTURE OF THE INSURANCE SERVICE SECTOR

1976 DATA



PERCENTAGE OF ESTABLISHMENTS
(71,588 ESTABLISHMENTS)

PERCENTAGE OF EMPLOYEES
(360,994 EMPLOYEES)



ESTABLISHMENT SIZE BY EMPLOYEES

- 1-19
- 20-99
- 100-499
- 500 OR MORE

- Survey data from all respondents showed the average revenue per employee to be about $95,000.

- As a check, premium income divided by the number of employees for several large insurance companies yields a figure of slightly over $100,000 for each employee.

- In 1978, premium income for both the life insurance industry and the property and casualty insurance industry totaled about $160 billion. Assuming commissions to agents average 20% (in property and casualty the average is 15% and in life it is higher), then revenue to agents would be approximately $32 billion. A considerable amount must be subtracted for agents that are carrier employees, and money must be added for establishments within SIC 64 that are not agents. Since no solid figures seem to be available, the added and subtracted amounts are assumed to be roughly equal.

- Assuming $95,000 in revenue per employee, then the revenue by establishment size is:

Establishment Size	Estimated 1978 Revenue ($ Billion)
1-19 Employees	$21
20-99 Employees	$ 7
100-499 Employees	$ 4
500 and over	$ 2

- The distribution of independent insurance agencies roughly mirrors the distribution of population in the U.S. (Exhibit III-3).

EXHIBIT III-3

DISTRIBUTION OF SMALL, INDEPENDENT INSURANCE AGENTS, BROKERS, AND SERVICE ESTABLISHMENTS BY STATE

STATE	NUMBER OF SMALL ESTABLISH-MENTS	PERCENT OF UNITED STATES TOTAL	STATE	NUMBER OF SMALL ESTABLISH-MENTS	PERCENT OF UNITED STATES TOTAL
AL	936	1.3%	MT	305	0.4%
AK	104	0.1	NE	692	1.0
AZ	717	1.0	NV	229	0.3
AR	668	0.9	NH	309	0.4
CA	7,046	9.8	NJ	2,046	2.9
CO	1,048	1.5	NM	387	0.5
CT	974	1.4	NY	5,910	8.3
DE	186	0.3	NC	1,783	2.5
DC	188	0.3	ND	297	0.4
FL	2,936	4.1	OH	3,714	5.2
GA	1,636	2.3	OK	1,102	1.5
HI	211	0.3	OR	900	1.3
ID	272	0.4	PA	3,199	4.5
IL	3,852	5.4	RI	294	0.4
IN	1,847	2.6	SC	815	1.1
IA	1,311	1.8	SD	293	0.4
KS	1,030	1.4	TN	1,459	2.0
KY	1,098	1.5	TX	4,719	6.6
LA	1,394	2.0	UT	376	0.5
ME	338	0.5	VT	153	0.2
MD	1,086	1.5	VA	1,443	2.0
MA	1,900	2.7	WA	1,224	1.7
MI	2,753	3.9	WV	517	0.7
MN	1,580	2.2	WI	1,616	2.3
MS	728	1.0	WY	147	0.2
MO	1,805	2.5			
TOTAL NUMBER OF SMALL ESTABLISHMENTS				71,573	100.0%

- The ten most populous states have the most insurance agencies.

- The ranking below the top ten, while not completely matching the most populous states, comes very close to doing so.

- As a rough "rule of thumb" based upon 1977 U.S. population estimates, there is one independent insurance agent for each 3,000 people.

  - Agency concentrations follow population concentrations.

IV USE OF INFORMATION PROCESSING EQUIPMENT AND SERVICES

IV USE OF INFORMATION PROCESSING EQUIPMENT AND SERVICES

A. COMPUTER EQUIPMENT AND SERVICES

1. CURRENT AUTOMATION LEVELS

- Historically, the insurance industry has been a leader in the use of automated information processing techniques because of the data intensive nature of their operations. Such automated techniques extend through all elements of the insurance industry including company home office, company regional and branch offices, as well as independent agencies.

- To date, the greatest investment in data automation has been made by the company home offices for central processing. This has contributed to the extension and acceptability of data automation and communications methods more readily by the branches and subsidiary offices of parent companies than by independent establishments.

- The industry has been driven to the use of increased data automation at every level by three major factors.

  - Increased labor costs have emphasized the use of all possible labor saving techniques which reduce or eliminate the paper handling labor factor in processing standard insurance transactions.

- Insurance transactions require timely movement between the point of origin - the insured and the agent - and the insurance company for processing and the prompt return of data to the insured, as in the case of policy issuance and related premium accounting. Thus, data communications are increasingly important.

- Competitive forces in the insurance marketplace are favoring those innovative companies and their agents who can use automated methods to create new products and service their clients more efficiently.

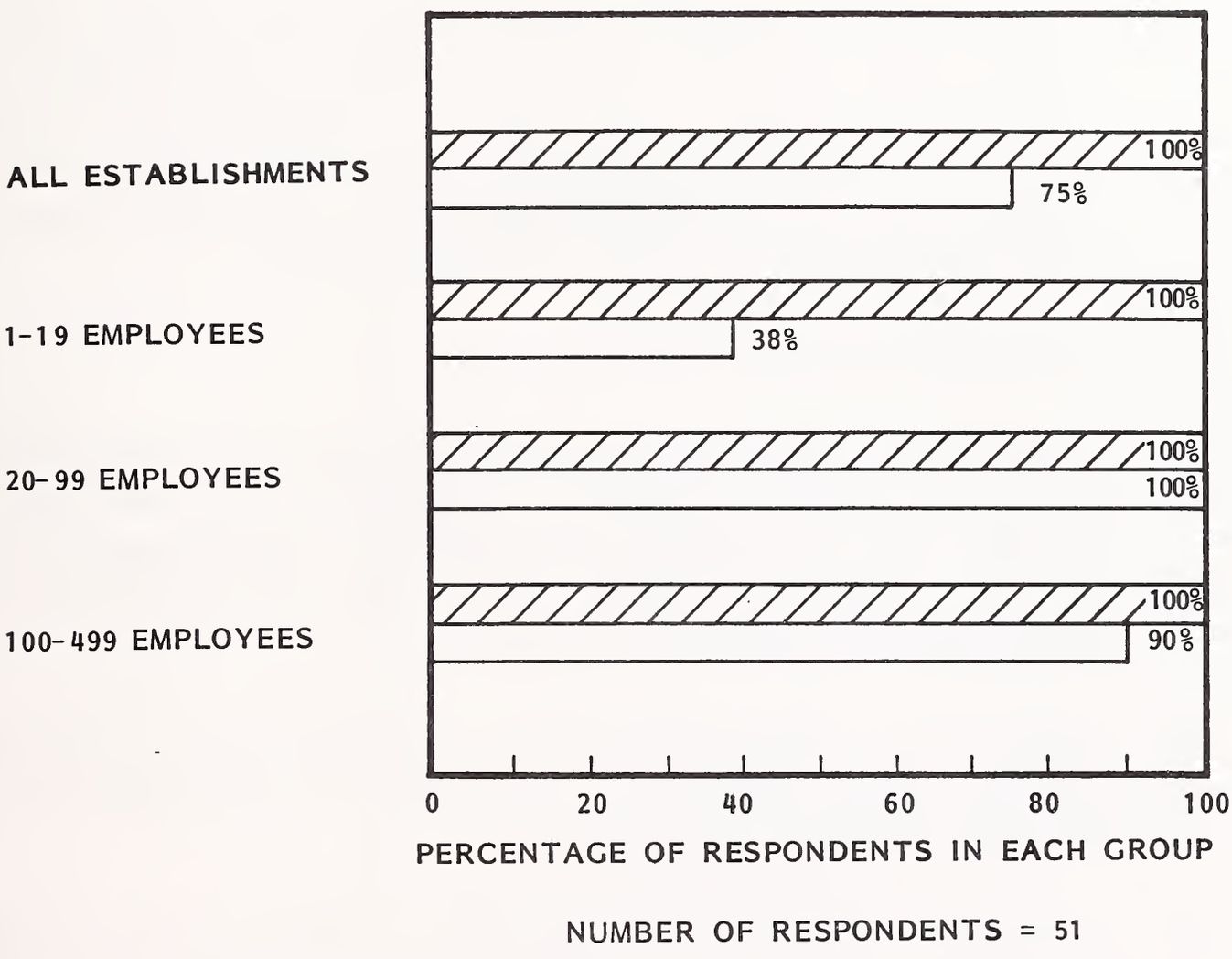
- The greater use of computers by branch operations than by independents is illustrated by the finding that every branch respondent confirmed its use of computer equipment or computer services, while only 75% of all independent establishments were using computers or services, as shown in Exhibit IV-1.

- It is particularly significant to note the difference in the respondents' level of automation at the smaller (1 to 19 employee size) establishment level. Even at this level all branch respondents were using computers to some degree, while only 38% of the independents were using computers. This is further in contrast with the 100% of both branch and independent agency usage of computers in the mid-range of 20 to 99 employees.

- Not surprisingly, the larger the firm the greater is the probability of computer usage. All of the larger branch operations and 90% of the larger independent respondents were using computers or computer services. The sole exception among the larger independent establishments is a large (over 300 employees) life, accident, and health insurance firm with plans to move from its current unit record installation to computer equipment in the near future.

EXHIBIT IV-1

INDEPENDENT INSURANCE AGENTS
RESPONDENTS' LEVEL OF AUTOMATION



- The absence of heavy computer automation of the smaller independent firms, which are usually insurance agencies, generally reflects their accelerating disappearance from the insurance marketplace through acquisition by larger firms. The smaller agencies (1-19 employees) frequently do not have the economic means or insurance product breadth to survive in the competitive marketplace.

- Virtually all of the smaller independents (1-19 employees) operating without computer support cited their "small operations" and the expense threshold of automation as reasons for not using computers. Interestingly, they further stated their intentions not to automate in the future. Unless a small independent agency is in a growth mode, computer vendors would be wise to avoid focusing marketing strategies on this market segment.

2. LOCATION OF EQUIPMENT AND SERVICES

- Location of computers and computer services currently used by branches and independents is shown in Exhibit IV-2. Significantly, 56% of the branch operations are using computers in locations other than their own. Such computers are housed in the parent company or other branch locations. Only 37% use computers at their own branch location.

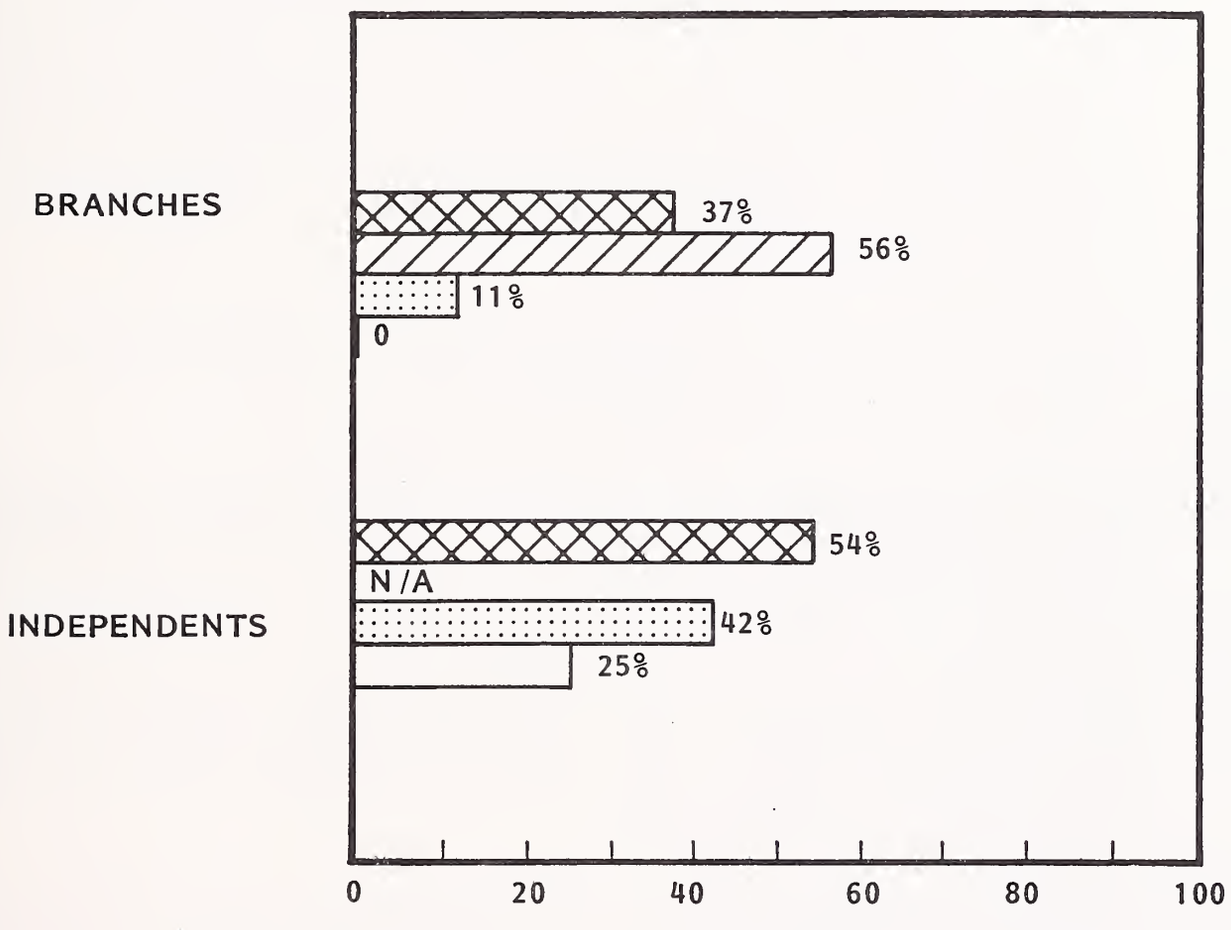
- A substantially higher percentage (54%) of the independents use computers located at their own establishment. In all cases but one, these independents each employed more than 20 people.

- Independents are, by and large, greater users of outside computer services (42%) than branch operations (11%) because branches obtained services from the headquarters facility.

- A somewhat surprising finding of this study was that, of those independents with their own computers, almost half were still users of outside services.

EXHIBIT IV-2

INDEPENDENT INSURANCE AGENTS
LOCATION OF COMPUTERS OR COMPUTER SERVICES USED
BY RESPONDENTS IN 1979
BRANCHES VERSUS INDEPENDENTS



PERCENTAGE OF ESTABLISHMENTS IN EACH GROUP
NUMBER OF RESPONDENTS = 51

RESPONDENT'S ESTABLISHMENT

ANOTHER LOCATION WITHIN RESPONDENT'S COMPANY

A COMPUTER SERVICE

DO NOT USE COMPUTERS

NOTE: TOTALS MAY BE GREATER THAN 100% DUE TO USE OF MULTIPLE SOURCES OF COMPUTING POWER

- Planned use of computers or computer services in 1984 by branch and independent operations shows a continued increase in the use of computerized data automation, as shown in Exhibit IV-3. Both give indications of their intent to place more equipment on their own locations. The independent establishments are moving somewhat more aggressively in this direction.

- The independents will continue to look to outside services to meet a large portion of their computing needs, even at a time when they are installing more computer equipment at their own location. This points to the need for computer services firms to fill special application requirements not met by in-house equipment. Sections V and VI will provide further explanation of application usage and needs.

- Branches plan to reduce their use of outside services as they replace it with in-house or parent company capabilities.

- There is a particularly strong correlation of computer usage by independents with establishment size. The larger the establishment, the higher the usage, as shown in Exhibit IV-4.

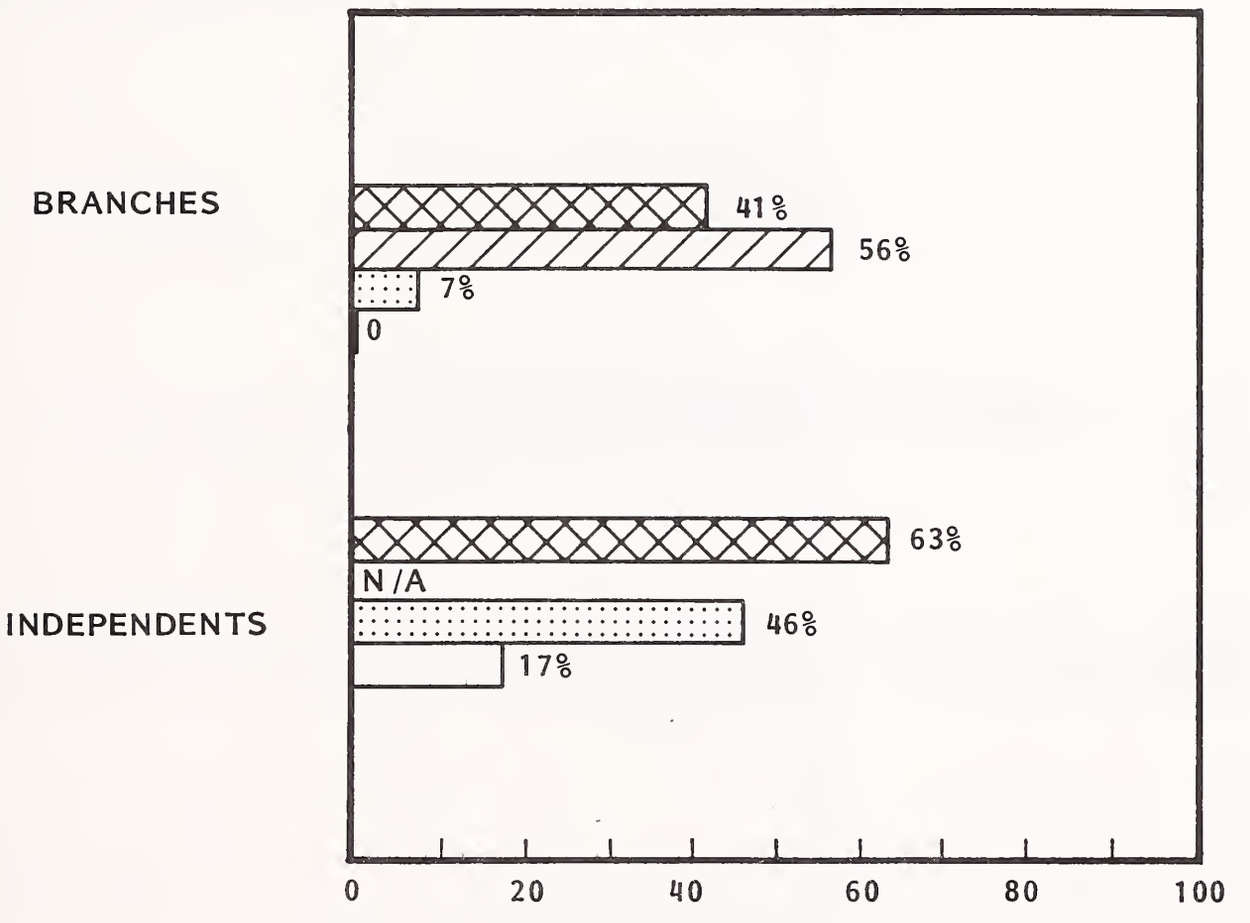
- Of the smaller independents (1-19 employees), most do not use any form of computer automation and, of those respondents, 80% said they did not expect to use computers within five years.

- Outside services appeal to and are used heavily by the small (1-19 employees) and medium (20-99 employees) size independents. These independent establishments intend to sustain a high level of usage of outside services through 1984, as shown in Exhibit IV-5. For example, the smaller firms plan to double their usage while installing no additional computer equipment at their own location.

- The medium (20-99 employees) and larger (100-499 employees) size independents show no intention of reducing their use of outside services even as they add in-house computers. Thus, vendors of services, software, hardware, and

EXHIBIT IV-3

INDEPENDENT INSURANCE AGENTS
PLANNED LOCATION OF COMPUTERS OR COMPUTER
SERVICES IN USE BY RESPONDENTS IN 1984
BRANCHES VERSUS INDEPENDENTS



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RESPONDENT'S ESTABLISHMENT

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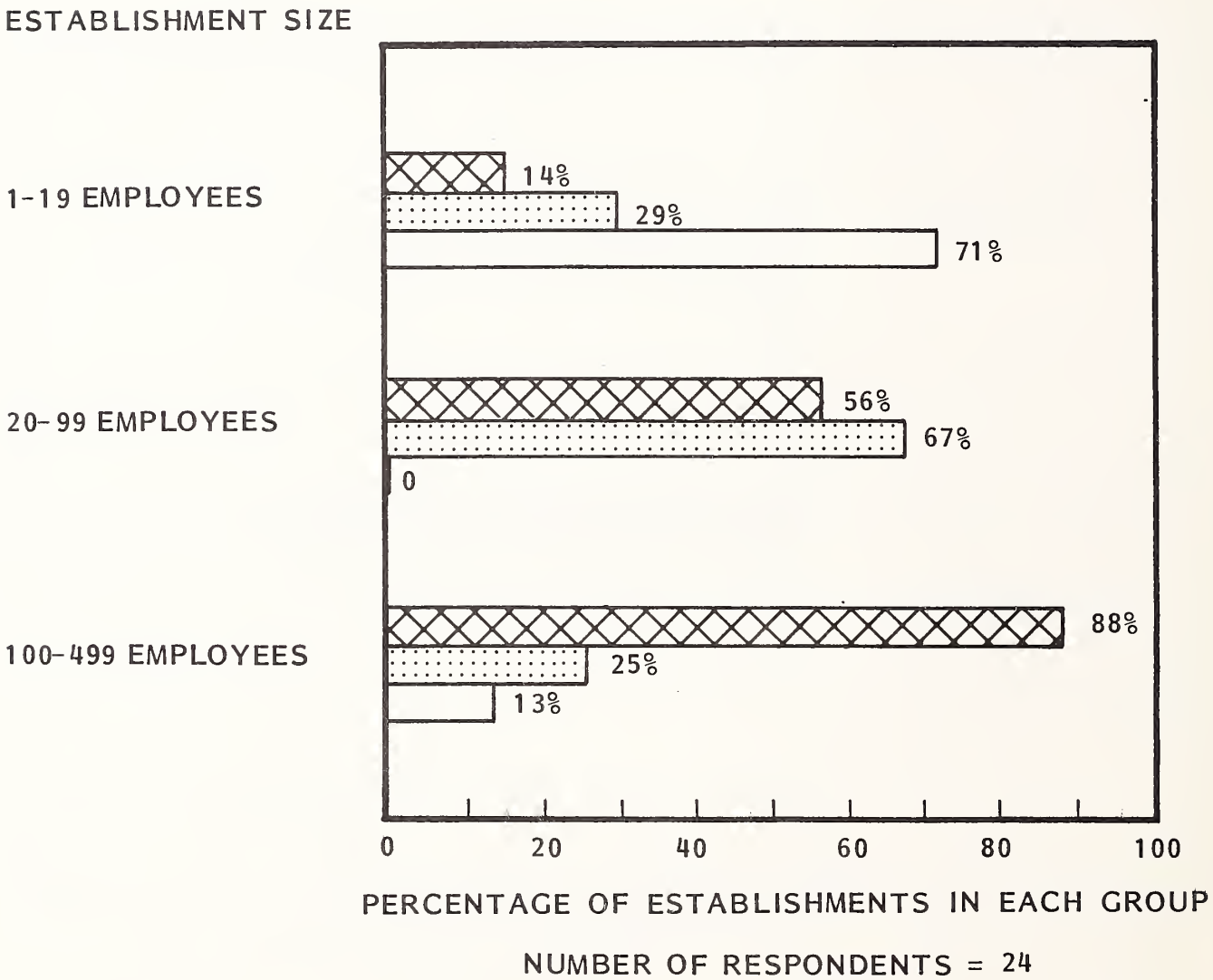
A COMPUTER SERVICE

DO NOT USE COMPUTERS

NOTE: TOTALS MAY BE GREATER THAN 100% DUE TO USE OF MULTIPLE SOURCES OF COMPUTING POWER

EXHIBIT IV-4

INDEPENDENT INSURANCE AGENTS
LOCATION OF COMPUTERS OR COMPUTER SERVICES USED
BY RESPONDENTS IN 1979
INDEPENDENT ESTABLISHMENTS



RESPONDENT'S ESTABLISHMENT

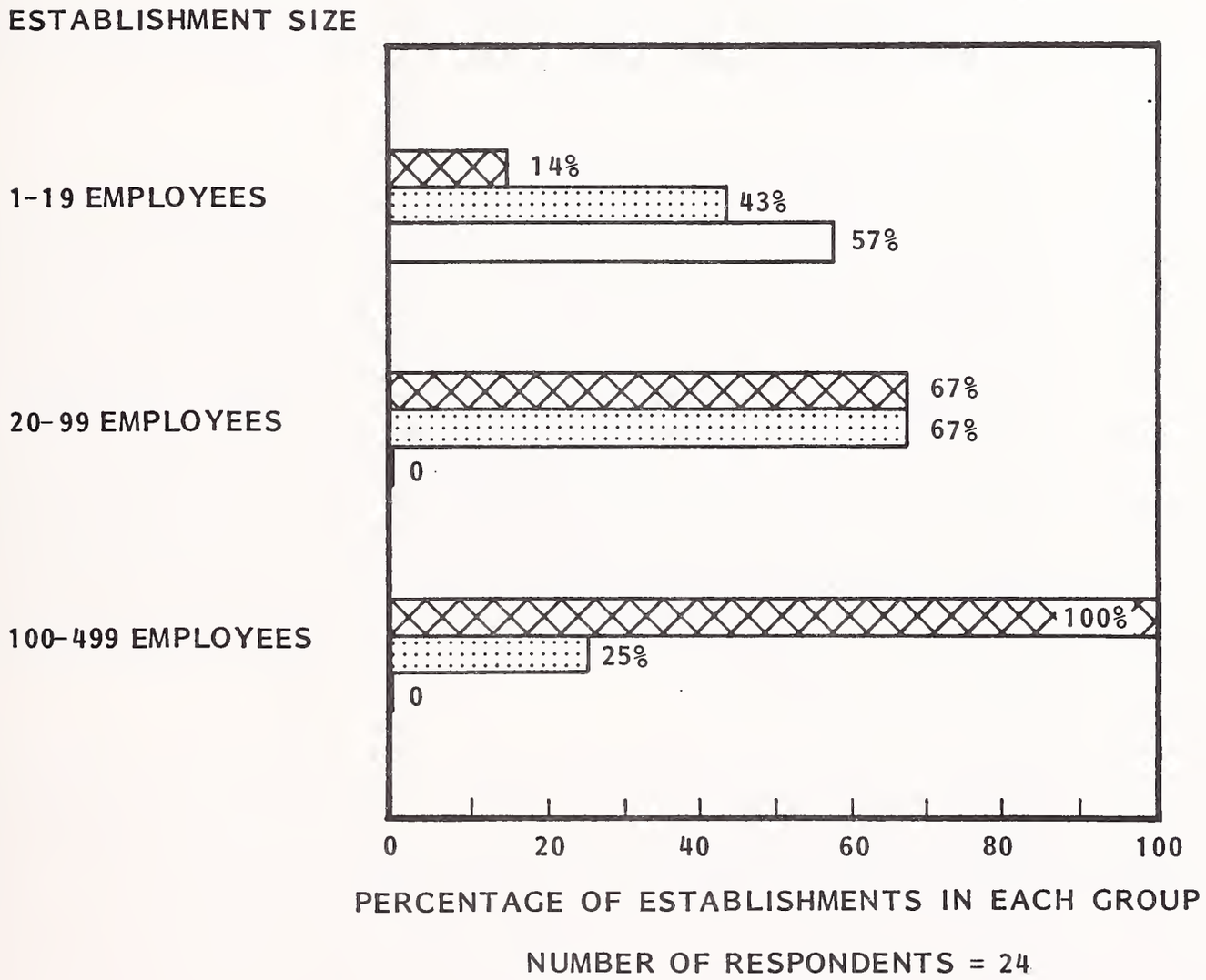
A COMPUTER SERVICE

DO NOT USE COMPUTERS

NOTE: TOTALS MAY BE GREATER THAN 100% DUE TO USE OF MULTIPLE SOURCES OF COMPUTING POWER

EXHIBIT IV-5

INDEPENDENT INSURANCE AGENTS
PLANNED LOCATION OF COMPUTERS OR COMPUTER SERVICES
IN USE BY RESPONDENTS IN 1984
INDEPENDENT ESTABLISHMENTS



RESPONDENT'S ESTABLISHMENT

A COMPUTER SERVICE

DO NOT USE COMPUTERS

NOTE: TOTALS MAY BE GREATER THAN 100% DUE TO USE OF MULTIPLE SOURCES OF COMPUTING POWER

computer communications will find a receptive market for their products without displacement of their own existing installations.

- Every large (100-499 employees) independent will be a user of computer equipment at its own location within five years. This further confirms the data intensive nature of the industry and at the same time reflects the effects of the rapidly growing trend towards the concentration of the insurance industry transaction (and premium) volume in the hands of fewer but larger firms.

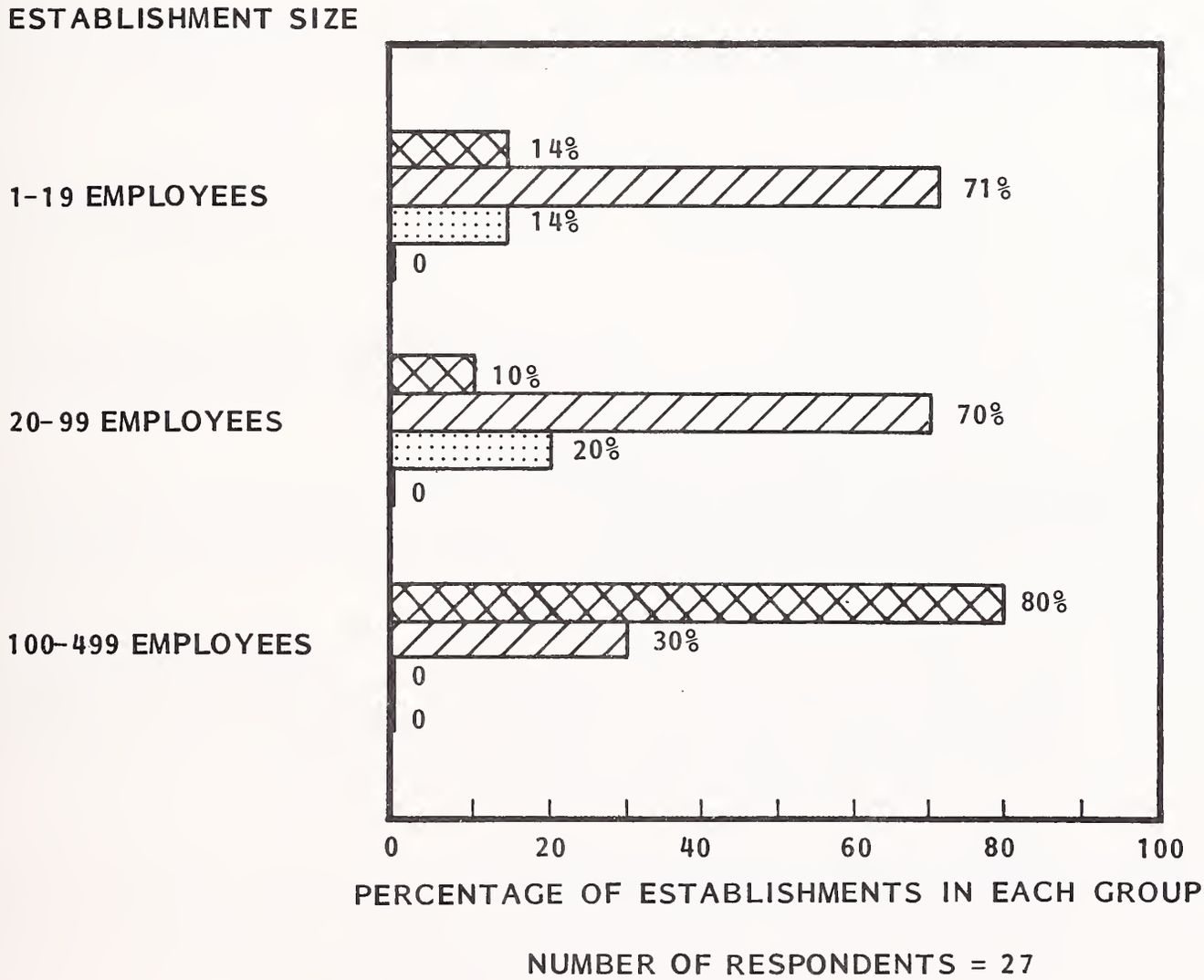
- Within the small (1-19 employees) to medium (20-99 employees) size branch operations of large companies, better than two-thirds are using computer equipment located at another site but within the same company. Exhibit IV-6 further shows that larger (100-499 employees) branch establishments are predominantly users of equipment at their own locations. This suggests the attainment of the critical economic scale necessary to support the use of computers on an in-house, on-location basis is at a level of 100 plus employees. Fewer than one-third of the larger branch establishments used computers at other locations. The larger branch establishments are excellent prospects for the upgrade and replacement of existing hardware because of their posture as proven substantial users.

- Outside computer services do not appeal to branch operations as they do to independent establishments. In fact, of the larger branch establishments surveyed, none indicated its use of outside computer services. This is thought to be an anomaly in the findings since many major insurance branches are known to be using outside services in specialty areas, such as rating and motor vehicle reporting. The smaller and medium size branch establishments do use computer services, but to a much lesser extent than do the independents.

- At least 10% of the larger branches (100-499 employees) use multiple computers. At least one is found at its location and some also use computers elsewhere within its company.

EXHIBIT IV-6

INDEPENDENT INSURANCE AGENTS
LOCATION OF COMPUTERS OR COMPUTER SERVICES
USED BY RESPONDENTS IN 1979
BRANCHES OF LARGE COMPANIES



NUMBER OF RESPONDENTS = 27

RESPONDENTS' ESTABLISHMENT

ANOTHER LOCATION WITHIN RESPONDENTS' COMPANY

A COMPUTER SERVICE

DO NOT USE COMPUTERS

NOTE: TOTALS MAY BE GREATER THAN 100% DUE TO USE OF MULTIPLE SOURCES OF COMPUTING POWER

- Branches of large companies indicate almost no plans to change the location of their computers over the next five years. It can be concluded that the pattern for the location of their computers, regardless of the size of the establishment, has stabilized. The smaller and medium size branch establishments will use parent company computers, and the larger branches will use their own.

- When asked why they preferred using a computer at their location rather than using computer services, the respondents generally cited reasons of control, flexibility, and cost. Typical responses were:

  - "With our type of processing, using a service bureau would be costly." (Medium independent.)

  - "Own system is only feasible way." (Medium independent.)

  - "Speed and accuracy." (Large branch.)

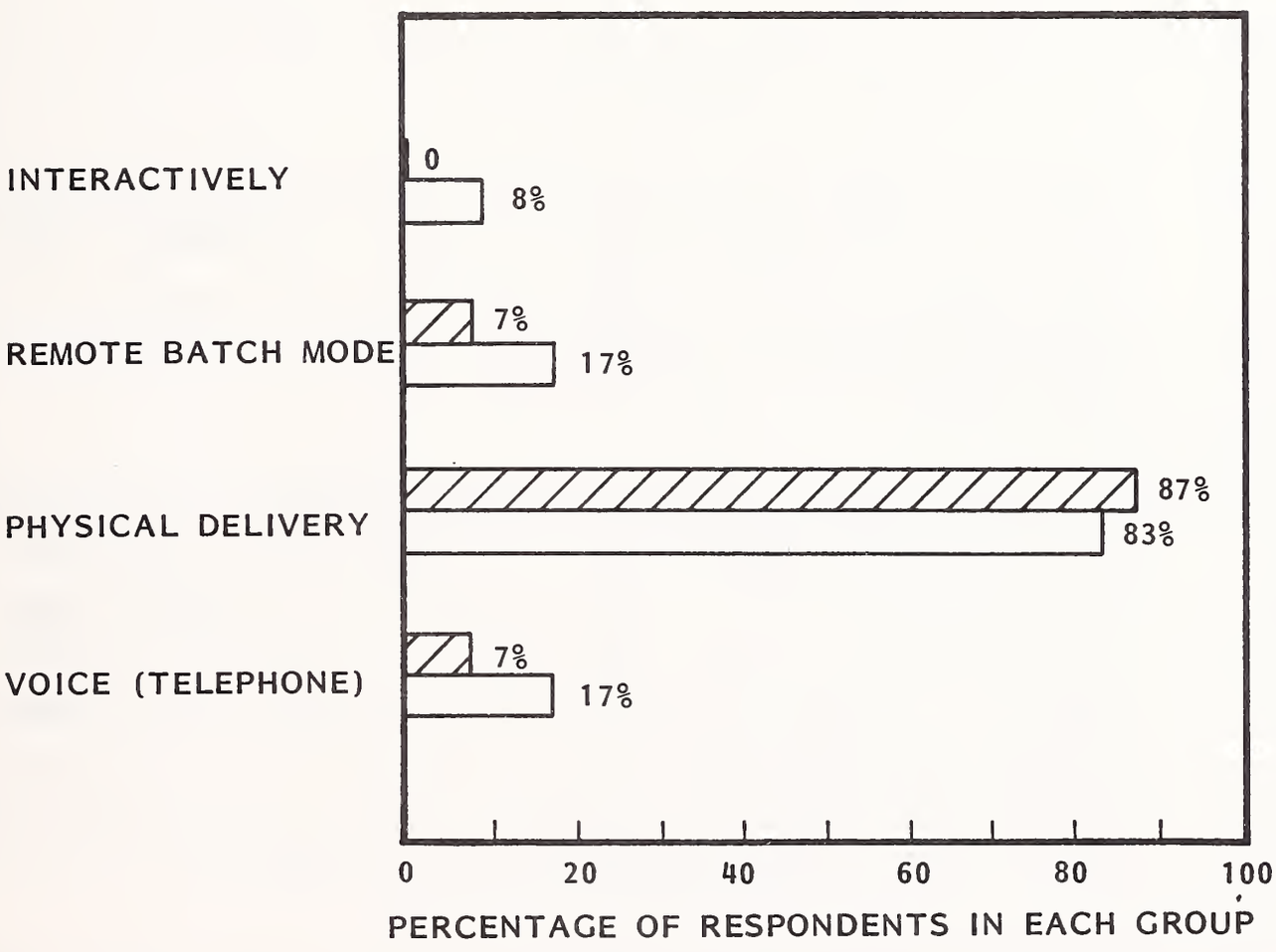
  - "Need data at fingertips, cost wise a service company would be no good." (Large independent.)

- Data moves between the insurance firm and the location of the computer service most often by physical means, predominantly the mail (internal and external mail/delivery services), as shown in Exhibit IV-7.

- Of those establishments using computers, the independent firms are somewhat ahead of branches in the use of their computers or computer services to transmit data on an interactive and remote batch basis.

EXHIBIT IV-7

INDEPENDENT INSURANCE AGENTS
HOW DO YOU TRANSMIT DATA BETWEEN YOUR LOCATION
AND THE LOCATION OF YOUR COMPUTER SERVICE?



NUMBER OF RESPONDENTS = 27

BRANCH

INDEPENDENT

NOTE: TOTALS MAY BE GREATER THAN 100% DUE TO USE OF MULTIPLE METHODS OF DELIVERY

- The bulk of the processing for both independents and branches continues to be of a batch nature. With the introduction of lower cost data transmission methods which will permit greater use of remote computing, a considerably greater portion of insurance data will be moved electronically. Eventually, perhaps within five years, the majority of data will be electronically transmitted replacing today's reliance on physical data delivery between the user and the computer.

3. TYPES OF EQUIPMENT USED

- Except for equipment at branch operations employing between 100 and 499 people, the majority (71%) of the computers are minicomputers. The larger branch operations use larger, more powerful computer equipment. Even the minicomputers used by the larger branches tend to be of the larger configurations (Exhibit IV-8).

- IBM computers dominated the manufacturers' market to the independent insurance agent with a 43% share of those listed. Honeywell, Burroughs, Data General, and Nixdorf each had 9% of the total. As in the computer industry as a whole, IBM is the largest single supplier of computers to the insurance industry. It is significant that IBM's position as a supplier of minicomputers is somewhat less dominant, with only 29% of the total minicomputers listed. It is apparent that other leading manufacturers of minicomputer equipment have been successful in penetrating IBM's typically strong position.

- Insurance establishments are apparently significant users of CRT terminals. The typical installed computer supports multiple CRTs. Of the computers capable of supporting CRT terminals, the range of terminals per computer was from 1 to 48.

- One of the more significant differences in the use of computers by independents versus branches is found in the number which are used to communicate with other computers or terminals at locations other than their own. Only 8% of the independents with computers used them to communicate with off

EXHIBIT IV-8

INDEPENDENT INSURANCE AGENTS -
COMPUTERS FOUND AT RESPONDENTS' ESTABLISHMENTS

INDEPENDENTS	BRANCHES
1-19 EMPLOYEES	
DATA GENERAL	IBM SYSTEM/3
20-99 EMPLOYEES	
GENERAL AUTOMATION 18/30 IBM 1401 IBM SYSTEM/34 UNIVAC BC/7 IBM/SYSTEM 360 IBM SYSTEM/3 MODEL 10	NIXDORF 820 NIXDORF 840
100-499 EMPLOYEES	
BURROUGHS 1714 HONEYWELL 2048 IBM SYSTEM/3 NATIONAL ADVANCED SYSTEMS AS/3.5 BURROUGHS 1726 DATA GENERAL M600 IBM 370/125	IBM 360/30 OLIVETTI HONEYWELL LEVEL 66 DPS IBM 370/158 IBM SYSTEM/3 MODEL 10 DIGITAL PDP-11

location computers, while 69% of the branch computers or terminal equipment were used this way. This further confirms the nature of branch dependency on home office or parent company computers.

4. COMPUTER SERVICE VENDORS TO THE MARKET

- A variety of outside computer service vendors provide services to the insurance industry. Although 53% of the respondents indicated their use of such services, no single vendor dominates this market. Batch services were used by 26 respondents and only one reported the use of an interactive service.

- Outside services are used most commonly where there is the need for special applications. For example, two-thirds of the respondents reported using outside services for processing their payroll.

- The next most frequently used service is in the client billing and related accounting areas. Two respondents were using a service for printing insurance policies, and one reported getting driver motor vehicle records through a service.

- Some 25% of the insurance firms in SIC 64 purchase their services from banks, particularly for their payroll processing.

- Of the known computer services firms with an orientation to the insurance industry, the majority are local or regional in operational scope and offer essentially batch services. Recent years have seen the acquisition of a number of these local firms by national service companies pursuing the insurance industry.

  - This has resulted in an increasingly intense competition between these national firms, such as Agency Records Control of Bryan, Texas, Safecom of Tacoma, Washington, INSCO of New York, and the Service Bureau Company of Greenwich, Connecticut in the property and casualty insurance field, and firms in the life insurance area like

Electronic Data Systems of Dallas, Texas, and Insurance Systems of America in Atlanta, Georgia.

- The majority of the national vendors provide multiple services which include batch processing, minicomputers, and some form of facility management. A few also offer remote computing services.

- An "Agency Automation Guide" which identifies insurance computer services and vendors has been published by the Insurance Institute for Research (IIR) of White Plains, New York.

- Slightly more than two-thirds of the respondents preferred to pay for the outside services on an incremental basis where the fee is based upon the volume of data actually processed. Transaction pricing is most preferred, and charges based upon computing resources used (such as computer time) is second. About one-fourth of the users of services preferred to pay a flat monthly rate regardless of the volume of data processed. They cited the appeal of a "known and predictable cost."

5. SOFTWARE SERVICES

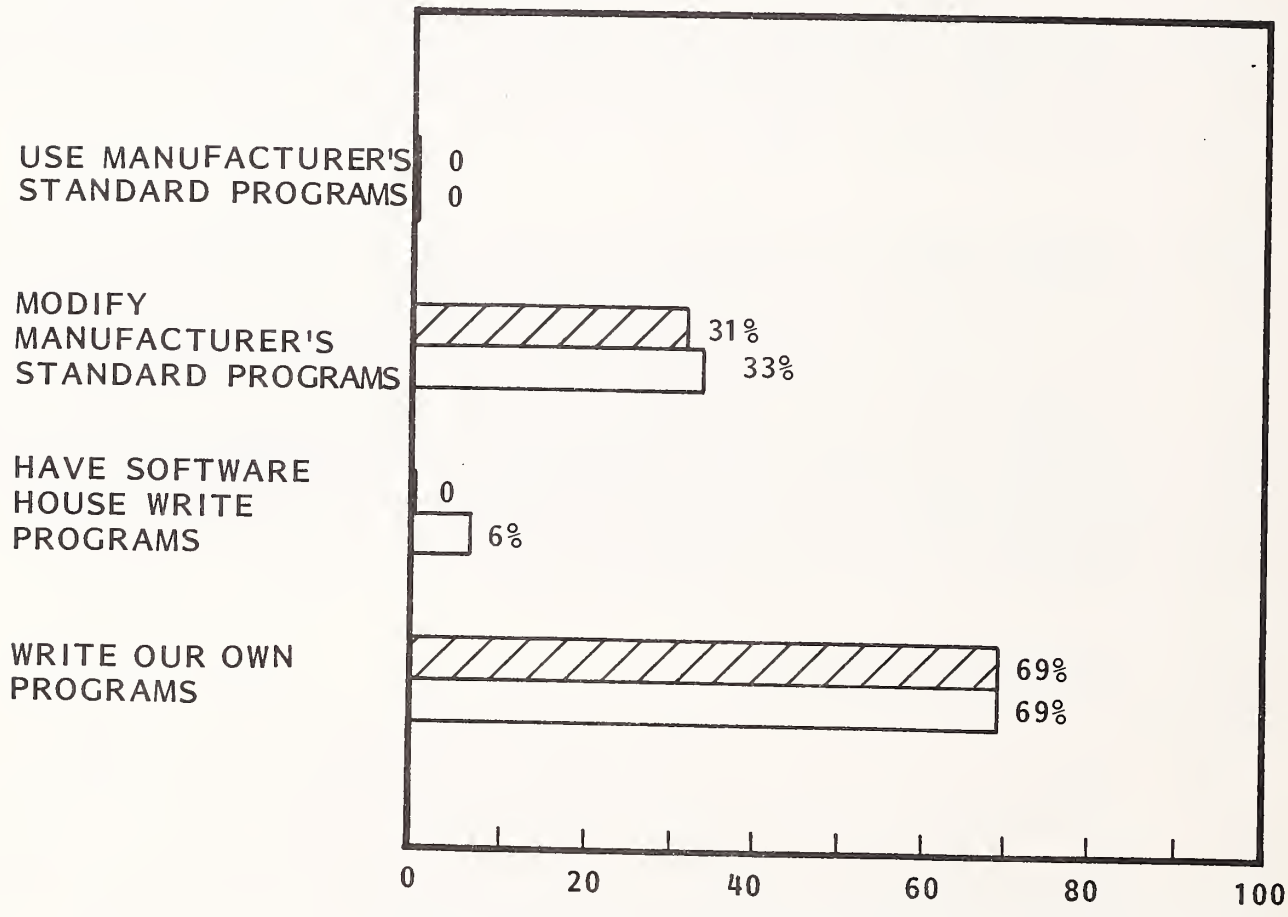
- Because the insurance industry perceives its applications needs to be unique, in the absence of appropriate software from computer manufacturers, more than two-thirds of the establishments develop their own software. As shown in Exhibit IV-9, none of the respondents used computer manufacturer's standard "off the shelf" software for application programs.

- There is no discernable difference in the source of software used by independents or branches.

- Close to one-third of the users modify the manufacturer's standard programs. The independents showed some willingness to use outside software houses to write their customized programs.

EXHIBIT IV-9

INDEPENDENT INSURANCE AGENTS
HOW DO YOU OBTAIN YOUR COMPUTER PROGRAMS?



NUMBER OF RESPONDENTS = 29

BRANCH

INDEPENDENT

- There is an apparent need for software that is designed for the specific applications of the insurance industry. In order to provide the desired flexibility for the user, the software should be modular and parameter driven. The user can mix, match, and modify these standard application packages with ease. The computer manufacturer offering equipment to the insurance industry with such pre-programmed application packages would be in a strong marketing position. Turnkey hardware/software combinations should have great appeal.

- The respondents placed a very high value on software support from the manufacturer and on the upward compatibility of the software to meet their needs as they progress through future generations of hardware. A more precise evaluation of the importance of the software in choosing a computer is discussed in Chapter VI.

6. LANGUAGES USED

- The computer programming languages used on computers installed at respondents' establishments is shown in Exhibit IV-10. Higher level languages such as COBOL and RPG are used more frequently. Many firms use more than one language.

- Assembler and BASIC are used more frequently by the branch establishments, perhaps reflecting their greater involvement in the development of data communications and transmission systems.

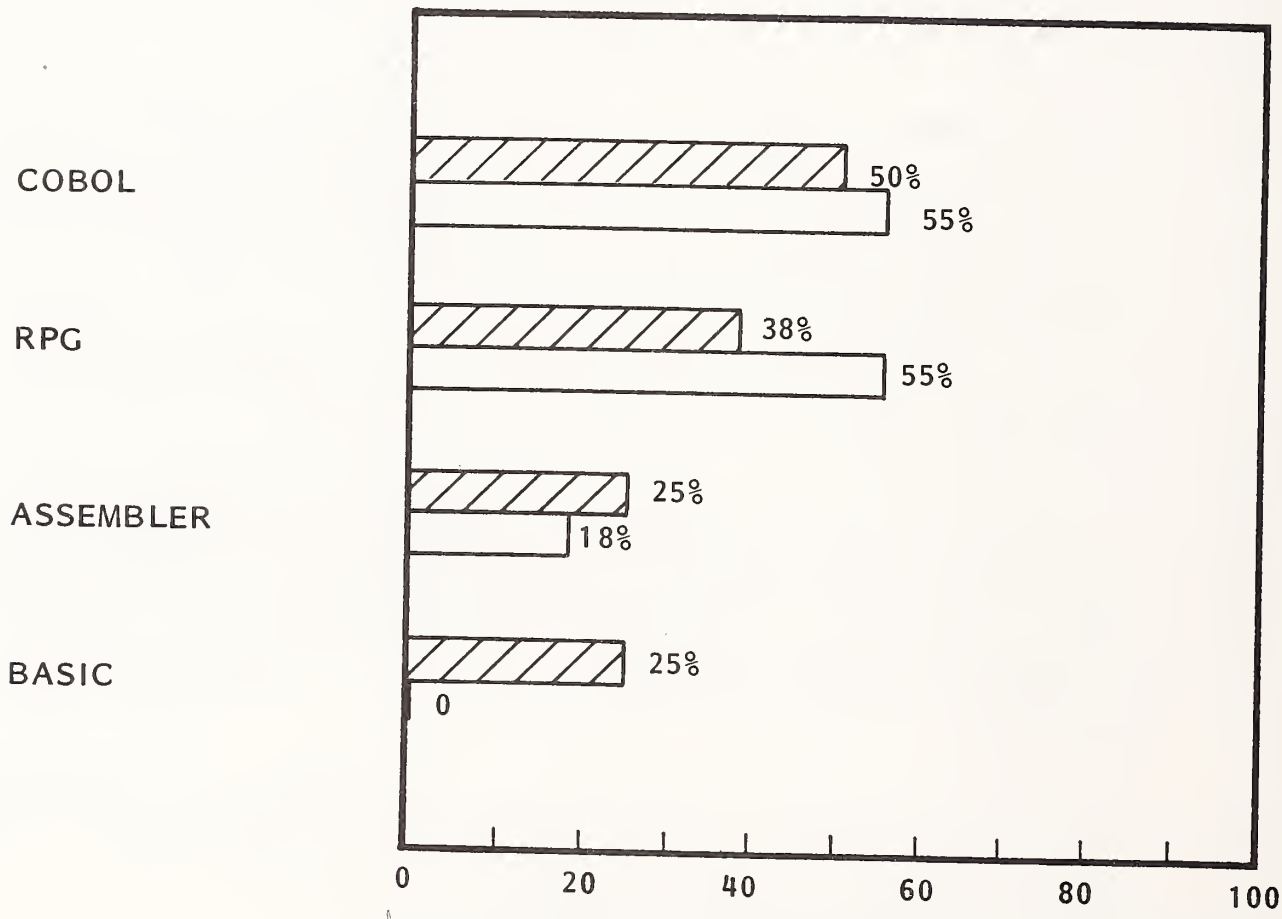
- RPG is used to a greater degree by independents than by branches. More minicomputers are found at the independents' sites than at branches.

7. ATTITUDES TOWARD COMPUTERS

- The respondents indicate an overall high degree of satisfaction with their present computer systems. When asked directly, only 11% were not satisfied, and all of these were branch establishments.

EXHIBIT IV-10

INDEPENDENT INSURANCE AGENTS
COMPUTER PROGRAMMING LANGUAGES USED
ON COMPUTERS INSTALLED AT RESPONDENTS'
ESTABLISHMENTS



NUMBER OF RESPONDENTS = 19

BRANCH

INDEPENDENT

NOTE: TOTALS MAY BE GREATER THAN 100% DUE TO USE OF MULTIPLE LANGUAGES

- The common acceptance of computers in the day-to-day operations of insurance services establishments is apparent in respondent comments. Almost two-thirds of the establishments intend to increase their computing capacity. They plan to do this by replacing current equipment with larger more powerful computers and by modifying their current computers, as shown in Exhibit IV-11. Comments included:

  - "Recently outgrown our current system." (Large independent.)

  - "Satisfied - handles almost all phases of operation." (Large independent.)

  - "Need bigger system." (Large branch.)

  - "Went to system for speed and accuracy - satisfied, anticipate no change." (Large branch.)

- Of the few establishments not satisfied with their current systems, it is significant to note that their reasons related to insufficient capacity on their equipment rather than any inherent rejection of automated information processing techniques.

- One medium size (20-99 employees) establishment intends to replace its in-house processing with an outside service as it is unhappy with the limitations of a centralized service which cannot adequately meet its field office needs.

- The independents indicate a greater proclivity to upgrade their current installations than do the branches.

- When asked what changes they would like to see in their current computer system, all respondents who gave comments cited their desire for more computing capacity through larger systems. Several respondents actually naming the manufacturer and model of equipment desired.

EXHIBIT IV-11

INDEPENDENT INSURANCE AGENTS
ATTITUDES AND PLANS TO CHANGE
THEIR CURRENT SYSTEMS

CHANGE	INDEPENDENTS	BRANCHES
NO CHANGE	2	9
ADD A COMPUTER	-	-
MODIFY PRESENT COMPUTER	7	3
REPLACE WITH NEW COMPUTER	4	3
REPLACE WITH A SERVICE	-	1

NUMBER OF RESPONDENTS = 29

B. COMMUNICATIONS EQUIPMENT AND SERVICES

1. EQUIPMENT USED

- For an industry that must be communications oriented, there is an apparent lack of sophistication concerning communications equipment and services. Its use of advanced information communication equipment, such as facsimile transmission devices or interconnect equipment, is minimal, as shown in Exhibit IV-12.

- Comments by respondents regarding what equipment or services they would be looking for during the next two years indicated their intention just to do more of the same thing they are doing today. They merely saw an increase in the number of phones and lines; a few firms plan to upgrade to a PABX (central telephone answering) service.

- The demarcation line between keyset usage and PABX usage is clearer in branch establishments than in many others studied. The number of outside lines feasible for keysets is in the 10-12 range (Exhibit IV-13). The number of inside lines broadly overlap between keysets and PABXs.

- There appears to be no significant means of deciding when an independent establishment will use a keyset system (one button for each outside line) or a PABX. Keysets and PABXs are intermixed in all size groups.

- Branches, however, seem to have more rigid rules. All of the large establishments (100-499 employees) have PABXs; all of the small independents (1-19 employees) use keysets; and the middle group (20-99 employees) is divided - 43% use keysets and 57% use PABXs.

- When evaluating the current or potential use of communications, the high percentage of branches (69%) reporting the usage of computer to computer or terminal to computer methods of processing data should be emphasized. While

EXHIBIT IV-12

INDEPENDENT INSURANCE AGENTS
COMMUNICATIONS EQUIPMENT USAGE

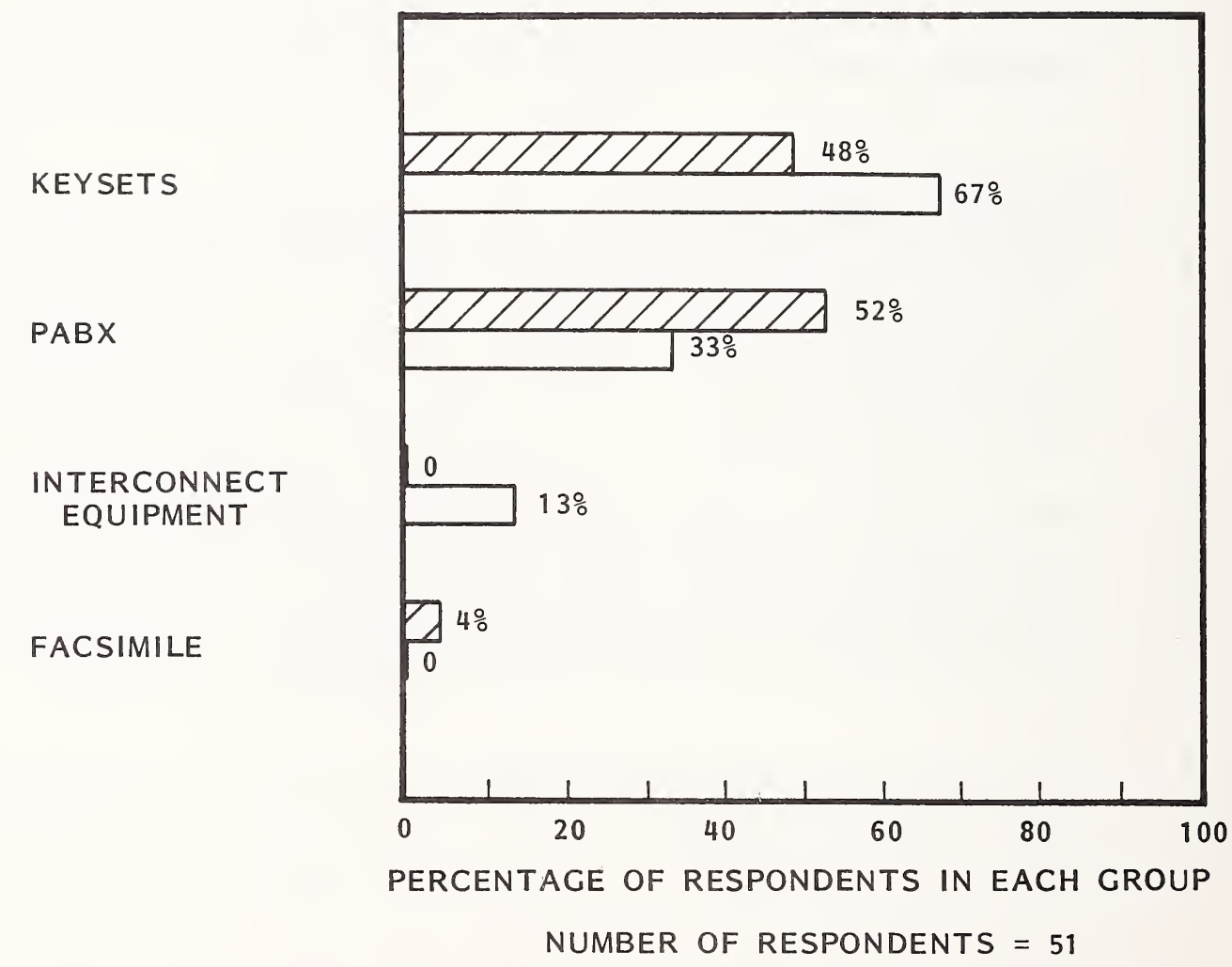


EXHIBIT IV-13

INDEPENDENT INSURANCE AGENTS

RESPONDENTS' RANGE OF VOICE COMMUNICATIONS

SERVICE LINES BY TYPE OF SWITCHING EQUIPMENT

ORGANIZATIONAL STRUCTURE	ESTABLISHMENT TELEPHONE SWITCHING EQUIPMENT	VOICE SERVICE LINES	
		RANGE OF NUMBER OF OUTSIDE LINES	RANGE OF NUMBER OF TELEPHONES (INSIDE LINES)
BRANCH	KEYSET	3-10	3-30
	PABX	4-30	4-100
INDEPENDENT	KEYSET	2-12	6-100
	PABX	2-150	15-250

NOTE: OUTSIDE LINES REFERS TO THE UNIQUE LINES FROM THE ESTABLISHMENT TO THE TELEPHONE COMPANY. THIS IS USUALLY EQUIVALENT TO THE NUMBER OF UNIQUE TELEPHONE NUMBERS AT THAT ESTABLISHMENT.

INSIDE LINES REFERS TO THE NUMBER OF LINES WITHIN THE ESTABLISHMENT. THIS IS USUALLY EQUIVALENT TO THE NUMBER OF PHYSICAL TELEPHONES.

these firms are not significant users of advanced voice or audio communications methods, they are among the leaders of industry groups using remote computing technology via leased line and dial up networks.

- Bell Telephone, not surprisingly, dominated the suppliers of telephone equipment, with 84% of the respondents indicating Bell as their supplier. Some 10% of the telephone equipment was supplied by non-Bell telephone companies, and the remaining equipment (6%) is supplied by non-telephone companies.

- When prodded - that is, specifically asked why they use the equipment and/or service that is currently installed - the respondent answers were either "is there anything else" or "it fits our needs and service is good."

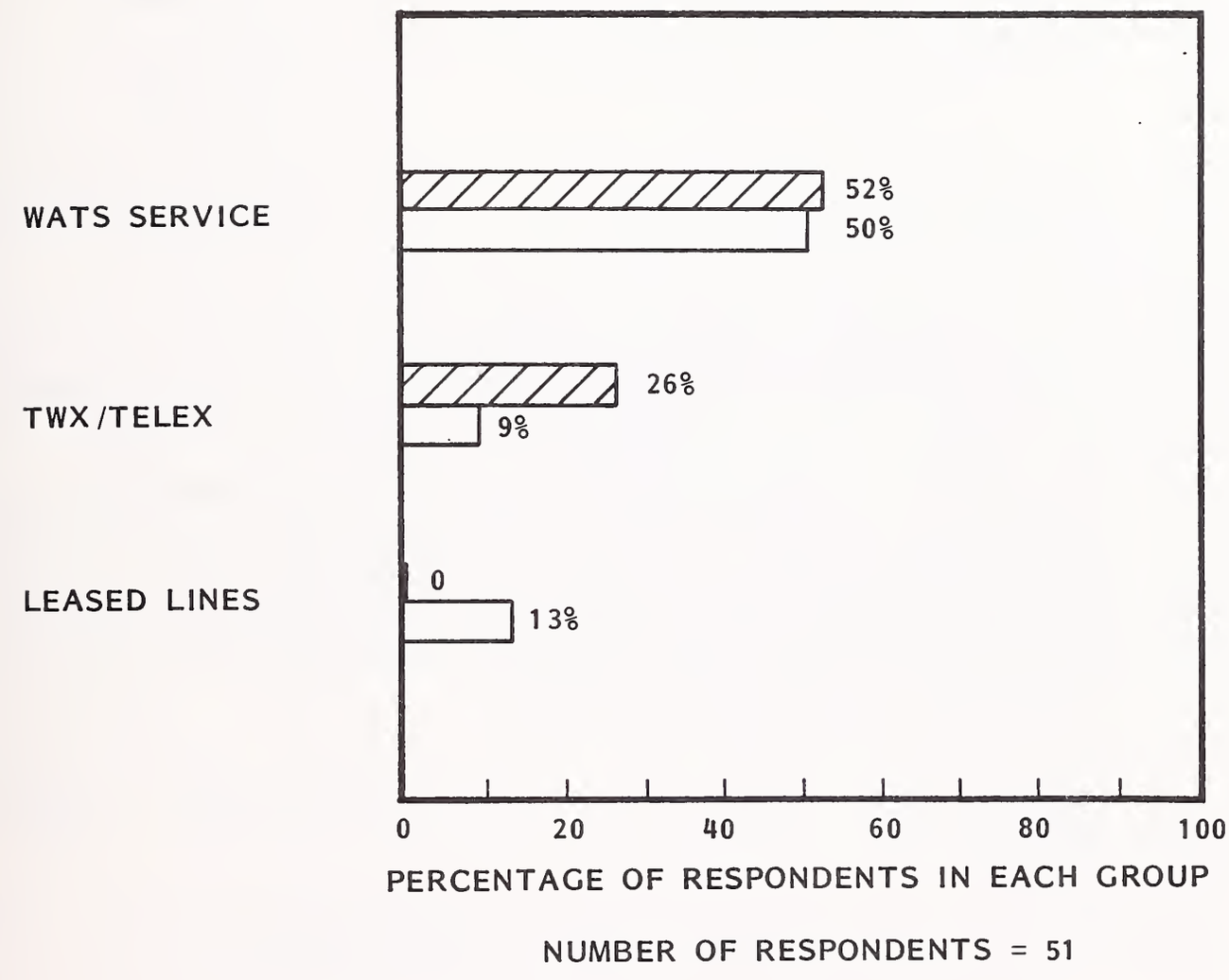
2. SERVICES USED

- The use of WATS lines, while not the highest among all industry groups, is in the upper brackets. Almost 50% of all insurance establishments indicated their usage of such service, with most firms reporting three or more WATS lines.

- Telex and TWX services were used more extensively by branch operations, with 26% reporting their use. In contrast, less than 10% of the independents made use of Telex or TWX services, as shown in Exhibit IV-14. While no branch establishment respondents used leased lines, 13% of the independents were using such lines, particularly to extend their marketing or client servicing range into prime population (hence market) centers.

EXHIBIT IV-14

INDEPENDENT INSURANCE AGENTS
COMMUNICATIONS SERVICE USAGE



NUMBER OF RESPONDENTS = 51

BRANCH

INDEPENDENT

- The implication on communications of word processing equipment can be drawn from the section of this study on office equipment. Combining the speed and efficiency of word processing equipment with leased or even dial-up telephone line service will permit insurance firms to more efficiently communicate among themselves and between themselves and their clients with similar equipment. Once the cost and efficiency implications are recognized and appreciated by the insurance industry and their clients, the impact on expanded use of telephone line communications is likely to be striking.

3. ATTITUDES TOWARDS INTERCONNECT AND BELL TELEPHONE

- Local availability of both equipment and service by Bell is the principal reason cited for its predominant usage.

- General satisfaction with Bell's equipment and service is also given as a contributing reason why users have not aggressively sought alternate sources.

- Three respondents (two small independents and one large independent) use non-Bell equipment, primarily as the result of their geographic location where they are served by a non-Bell company. One user clearly prefers his non-Bell equipment alternative. He indicated he saves money and has the flexibility of owning his own communications equipment.

- Typical responses regarding satisfaction with the Bell equipment and services included:

  - "Current system is fine." (Medium size independent.)

  - "Bell provides a complete system which fits our needs." (Large independent.)

  - "They are available and easy to use." (Medium size branch.)

  - "Most available with least waiting time." (Medium size independent.)

C. OFFICE EQUIPMENT

1. WORD PROCESSING EQUIPMENT USAGE AND ATTITUDES

- The use of word processing equipment by the insurance industry is increasing dramatically. This industry stands out in its use of advanced office equipment. Three years ago it was the rare agent or insurance office that could be found using such equipment, and then it was usually of the electronic memory typewriter variety.

- Due to the labor intensive methods usually employed in the high volume paperwork tasks associated with insurance offices, owners and managers who have made cost/benefit analyses have been particularly receptive to the labor saving features of word processing equipment. Because of this receptivity, some word processor manufacturers (such as IBM, Olivetti, and CPT) have focused on the needs of the insurance industry and are apparently being quite successful.

- One-third of all respondents reported using word processing equipment now. The branch operations were greater users (41%) than were the independents (25%).

  - One large branch was using a six station shared logic word processor.

- Size of the establishment appears particularly important in the decision to use word processing equipment. Of the independents, users of word processing were:

  - Small establishments (1-19 employees) 0
  - Medium establishments (20-99 employees) 33%
  - Large establishments (100-499 employees) 38%

- This same pattern applies to branch establishments as well. Users by size category were:

  - Small establishments 0
  - Medium establishments 40%
  - Large establishments 70%

- The overall use of word processing equipment, when defined to include electronic or memory typewriters, standalone word processors, and shared logic word processors, is shown in Exhibit IV-15. Standalone word processors are the most popular units now installed.

- The findings do not yet reflect the emerging use of standalone word processors as communication devices functioning as part of electronic mail networks or as terminals interfacing with local or remote computing equipment. Some insurance institutions are currently using their word processing equipment for these purposes.

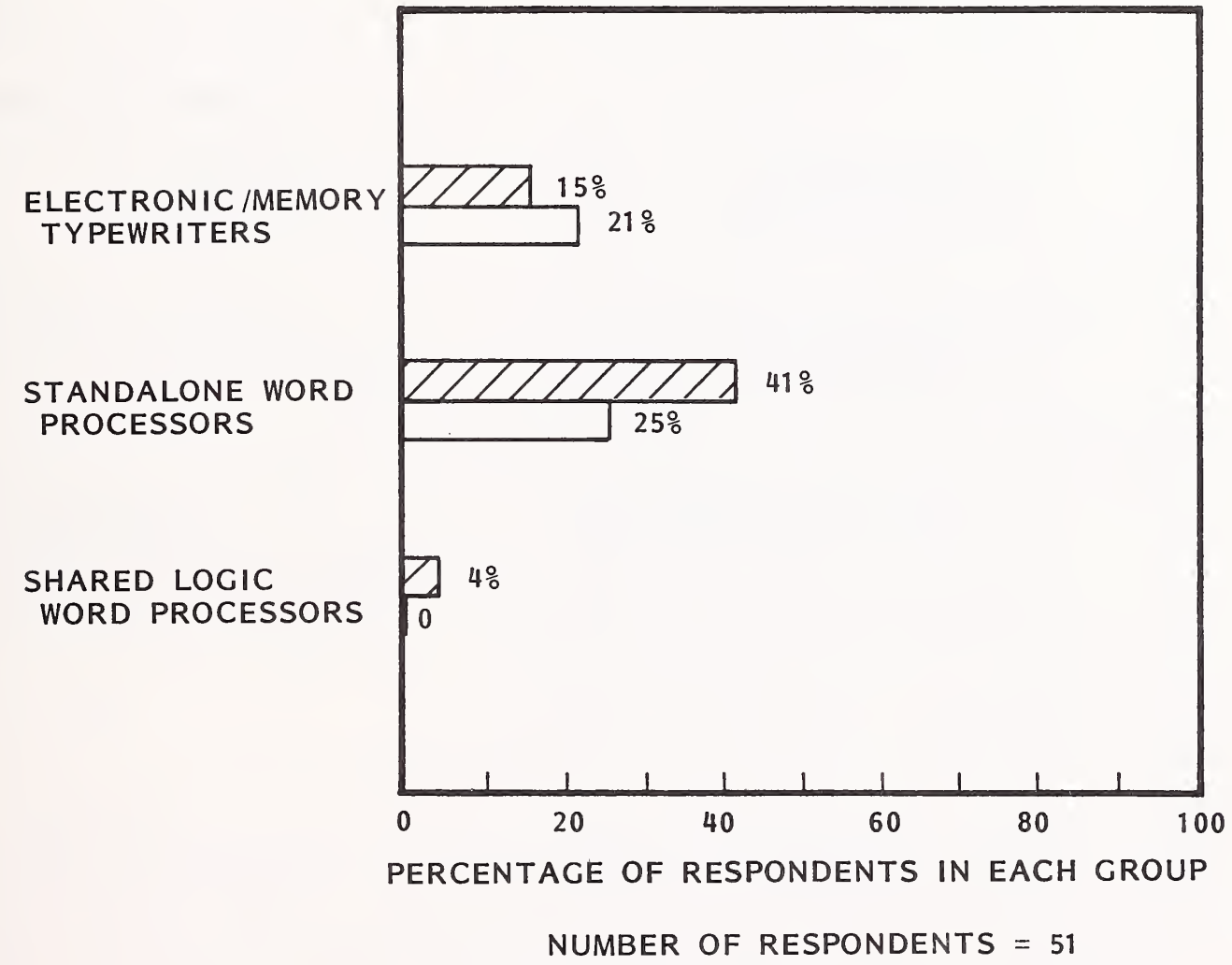
- Although the usage of word processing equipment is relatively high, of those who are not using it, most cited either insufficient volume, no need, or prohibitive cost. This suggests that word processing vendors must be more creative in their selling in order to educate potential users in its multiple applications.

- Those firms using such equipment feel very positive about its use and justification and have found numerous unexpected applications, further reinforcing their cost/benefits.

- One large (100-499 employees) independent respondent stated his reason for not using word processing equipment was because his "computer does most things that word processing equipment would do." His case is not unusual. Both minicomputer and large system manufacturers are frequently including

EXHIBIT IV-15

INDEPENDENT INSURANCE AGENTS
WORD PROCESSING EQUIPMENT USAGE



high quality printers and text editing software in their configurations which can be used in lieu of standalone word processors.

- One vendor doing this successfully for insurance firms is Wang, which integrates software programs that create insurance mailing letters as a byproduct of the agent's processing of his normal daily business transactions.

- Further evidence of the receptivity and applicability of word processing equipment by this industry can be seen in the somewhat startling average number of units installed per firm. Of the ten independent establishments reporting usage of word processing, they averaged two units per establishment, with only four firms reporting single units.

- The acceptance is even more dramatic in branch operations. The fifteen branches reporting use of word processing equipment average three units per firm. Only five firms reported using only one unit.

- Word processing equipment found in insurance firms is dominated by IBM installations. Approximately 70% of those reporting had IBM equipment, principally IBM memory typewriters. Other manufacturers mentioned included Xerox, Wang, Savin, Vydec, Burroughs, and Four-Phase.

2. WORD PROCESSING TEXT EDITING NEEDS

- Branch establishments have found a greater variety of uses for their word processing equipment than have the independents. The best indications of the need and potential uses of this equipment is to examine the purposes for which it is being used by the more progressive firms. Exhibit IV-16 shows the greater number of uses to which word processing equipment is put in branches as compared with independents.

- Branches have been able to integrate word processing equipment into more functional areas than have the agents. For example, branches tend to use it for all correspondence rather than only the standard form letters. They also

EXHIBIT IV-16

INDEPENDENT INSURANCE AGENTS
TYPES OF DOCUMENTS RESPONDENTS PREPARE
ON WORD PROCESSING EQUIPMENT

BRANCHES OF LARGE COMPANIES	INDEPENDENT ESTABLISHMENTS
CLIENT RECORDS	STANDARDIZED FORM/LETTERS
ALL CORRESPONDENCE	ACCOUNTING REPORTS
STANDARDIZED FORM/LETTERS	STANDARD INSURANCE REPORTS
PROPOSALS	INTERNAL REPORTS
MANUALS FOR CLIENTS	
INTERNAL REPORTS	
CLAIMS	
TECHNICAL PROCEDURES MANUAL	
JOB PROCESSING	

use it as an integral part of their marketing operations in the preparation of proposals. Equally important is its use to support the data intensive administration control in maintaining client manuals, preparation of technical procedures manuals, and claims processing.

- Independents appear to use the equipment in a more restricted manner, perhaps reflecting the uses suggested by the manufacturer and using pre-packaged systems. By far, the principal uses are for standard form letters and insurance reports.

3. OTHER OFFICE EQUIPMENT USAGE AND NEEDS

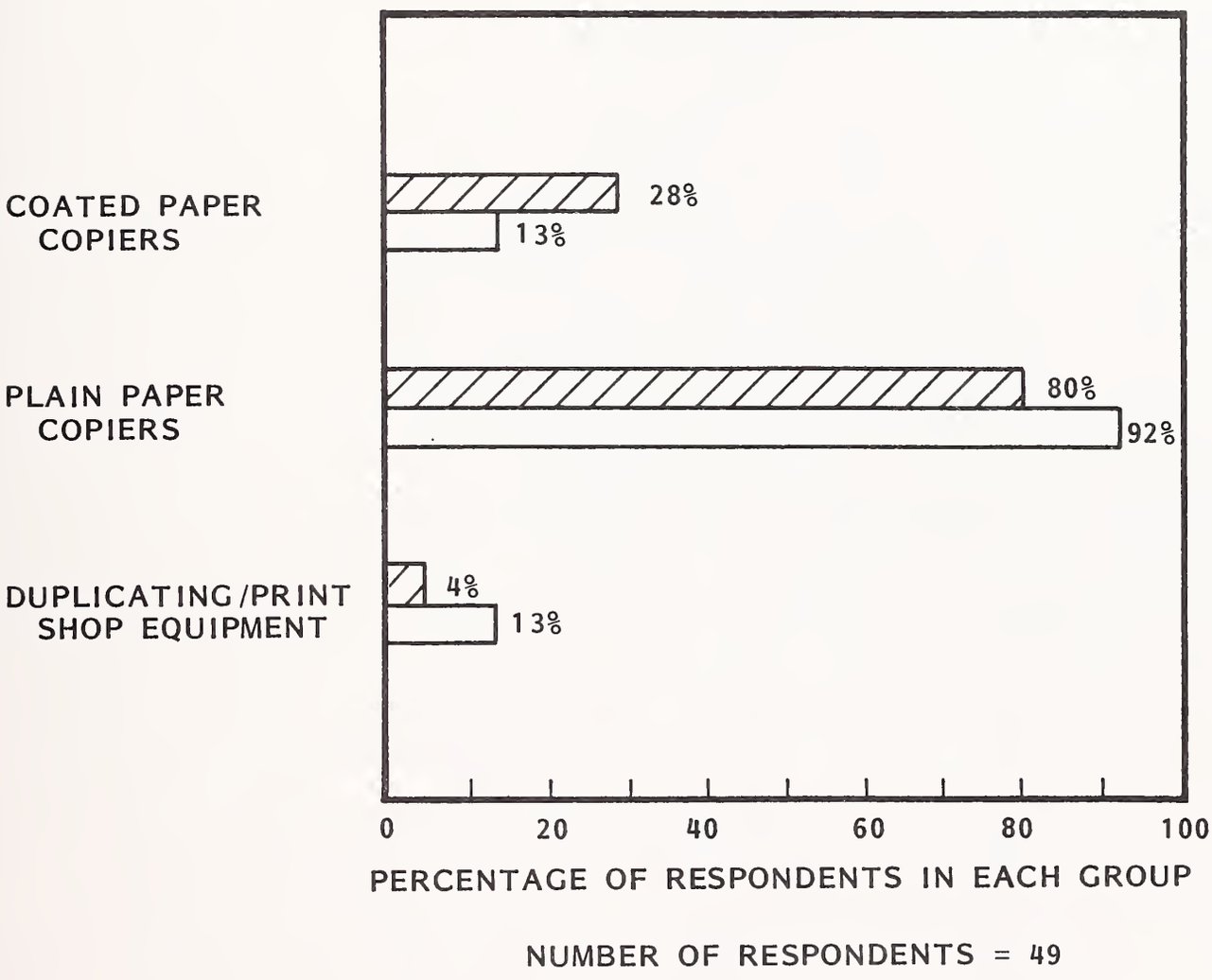
- As expected, this forms oriented industry is a major user of forms copying and duplicating equipment. Plain paper copiers are clearly dominant with no one vendor being outstandingly dominant in the industry (Exhibit IV-17).

- Of those firms reporting their volume of copies made per day, there was a wide range of responses. Typically, the small establishments' (1-19 employees) volume ranged from as few as 10 copies to a high of 500 per day, with the typical volume in the 75 to 100 range. Larger establishments (100-499 employees) reported an extremely heavy usage of their equipment, ranging from 2,000 to 25,000 per day.

- With this magnitude of need for forms generation and copying, it is likely that the industry will seek cost saving alternative methods for capturing, transmitting, and retrieving its basic commodity data. Chapter VI of this study provides some analysis and projections of these alternatives.

EXHIBIT IV-17

INDEPENDENT INSURANCE AGENTS
COPYING/DUPLICATING EQUIPMENT
USED BY RESPONDENTS



NOTE: TOTALS MAY BE GREATER THAN 100% DUE TO USE OF MULTIPLE EQUIPMENT TYPES

V APPLICATIONS ANALYSIS

V APPLICATIONS ANALYSIS

A. CURRENT APPLICATIONS

- This paperwork intensive industry has both standard and industry specific applications using information processing technology.

- Perceiving applications in terms of the equipment used to process them is an inaccurate perspective on the processing needs of this industry. Very few transactions in the process of marketing, placing, and servicing of insurance policies occur in the abstract. Yet an analysis of their current computer applications shows a surprisingly small percentage of respondents who claimed to have automated elements of standard insurance transactions such as:

  - Sales proposal preparation.
  - Policy rating.
  - Application underwriting.
  - Policy writing.
  - Claims processing.
  - Policy accounting.

- Coverage verification.

- Agent/company communications.

- Basic accounting applications (the primary applications) have been automated by the majority of respondents, with branch offices reporting a greater incidence of automation in this area than independents.

- Exhibit V-1 presents an analysis of the applications for automation which are now computerized or which the respondents intend to computerize within five years.

- The heavy emphasis on the use of computers in the basic accounting area is seen in the uniformity of respondent data in the application areas of payroll, billing, accounts receivable, accounts payable, and general ledger. Approximately 89% of the branch respondents and 67% of the independents currently use computers in these functions.

- Consistent with other findings throughout this study, the medium and larger size branches and medium and larger size independents are substantially more automated than the smaller firms in these categories. For example, the percentages of small independents performing basic accounting applications manually were:

  - Billing and accounts receivable 67%

  - Payroll 100%

  - Accounts Payable 83%

  - General ledger 83%

- By contrast, all but two of the medium and large independents were now using automated methods in all of these application areas.

EXHIBIT V-1

INDEPENDENT INSURANCE AGENTS
AUTOMATED APPLICATIONS ANALYSIS

APPLICATION	BRANCHES (N = 27)*		INDEPENDENTS (N = 24)*	
	NOW	WILL ADD WITHIN 5 YEARS	NOW	WILL ADD WITHIN 5 YEARS
PAYROLL	24	1	13	2
BILLING	24	1	17	3
ACCOUNTS RECEIVABLE	24	1	16	3
ACCOUNTS PAYABLE	24	1	16	2
GENERAL LEDGER	23	1	16	2
SALES ANALYSIS	19	1	16	3
SALES PROCESSING	18	1	15	2
CREDIT AUTHORIZATION	18	–	15	3
CLAIMS PROCESSING	3	1	10	4
POLICY WRITING	2	–	3	–
POLICY STATUS	2	–	–	–
RATING	2	–	–	–
LOAN ACCOUNTING	1	–	–	–
REGULATORY REPORTING	1	–	–	–
UNDERWRITING ANALYSIS	1	–	–	–
INCENTIVE PROGRAMS	1	–	–	–

*N = NUMBER OF RESPONDENTS

- Branches of large corporations are consistently more automated in more application areas than the independents. This is clearly a result of the influence of the home office or parent corporation, reflecting its own greater usage of automated techniques.

- In the same basic application areas, only 28% of the smaller branch establishments (1-19 employees) were using manual methods as compared to the independents shown above.

- While 100% of the medium and large size branches, as well as 88% of the similar size independents, were automated in these basic accounting applications, the great majority of smaller independents used manual systems. Simply stated, the small independents were least automated while the branches were far more automated at all levels.

- The current primary applications include credit authorization, sales processing (order entry), and sales analysis. Both credit authorization and sales processing are part of the normal billing procedure which accounts for their high usage by branches and independents. These should really be viewed as integral functions performed during the billing.

- Sales analysis, also among the more frequent current primary applications used, is typically a byproduct of the billing and payroll systems. Since most insurance firms have their sales organizations on incentive commission arrangements, the tracking of new business by line of coverage and salesman is essential for payroll purposes. Various sales analysis reports are created as the result.

- Secondary applications include policy writing, policy status, rating, loan accounting, regulatory reporting, underwriting analysis, and sales incentive programs.

- The current secondary applications, in terms of their incidence of usage, are automated far less frequently. Whereas an average of 80% of all firms had

automated the primary applications, fewer than 10% reported automating any of the secondary applications.

- A brief explanation of the primary and secondary applications is shown below. It is not the intention to present here a full explanation of these applications, but only to stress their salient features, particularly since they may be unique to the insurance industry.

  - Payroll - Most elements of the payroll processing for insurance firms are standard to any service industry. There is a heavy emphasis on incentive and commission programs for sales and managerial personnel. Frequently, there is the need for sales productivity analyses by individual and/or by insurance product. It is not unusual for commission sales people to be paid only upon receipt of premium monies rather than upon its billing. This requires an interface with the billing/accounts receivable system.

  - Billing/Accounts Receivable - As the name implies, this involves the process of creating an invoice to bill for the policy premium and then following-up on collection of that premium. Unique (or at least unusual) features to the insurance industry include multiple commission calculations on a single sale, validation of policy terms, provision for sale of insurance products through outside brokers, the need for options to prepare individual or consolidated invoices per policy per insured, and the need to accommodate renewal and endorsement billing. Accounts receivable processing is essentially standard. However, there is the need to alert agents and brokers when they have advanced monies to the insurance carrier on behalf of the insured. This capability is found in premium accounts current, or premium accounts payable systems.

  - Accounts Payable - There is nothing unique about the processing of typical trade accounts payable for services and products purchased by insurance firms. Only the premium accounts payable is unique because

the agent or broker must remit premiums to the insurance carrier on a rigidly predefined basis.

- General Ledger - Again, there are few exceptions to standard accounting practices in the processing of the general ledger and related financial operating statements for insurance establishments. The exceptions include unique accounting practices and rules regarding reserves, surplus, and the recognition of earned premium income.

- Sales Analyses - Insurance firms, like most other firms, have the need to know their current and historical sales patterns. The retention, collection, and display of such data carries no unusual implications.

- Credit Authorization - The credit authorization process is an integral part of the billing process and has no unusual system design or processing implications.

- Claims Processing - This application is particular to the insurance industry and typically consists of verification of the insured's coverage, recording of the loss data, establishing reserves for potential losses, monitoring the payment of losses, and posting to historical statistical files.

- Policy Writing - The automation of this function is one of the most rapidly emerging services to the insurance industry, either on an in-house or outside services basis. The essential elements are the recording of the attributes of the risk to be insured, the application of pre-programmed underwriting criteria, the preparation and printing of the policy itself, the creation of permanent policy records and the recording of the transaction in the premium accounting files. Of major system design importance is the location of this automated function, either at the point of transaction origin (the agent - typically interactive) or at the home office - typically batch.

- Policy Status - This refers to the inquiry capability to access and verify the status of any policy, most frequently through on-line automated techniques.

- Rating - Rating is the calculation of premium based upon characteristics of the risk to be insured. Rating is commonly a very complex application as it frequently requires the use of large, volatile data bases which must contain current data. Variable options must exist in these systems to permit the insured to change the coverage, deductible, or limits of his potential coverage in order to arrive at an acceptable price.

- Loan Accounting - Unique to the life insurance segment of the insurance industry, this refers to borrowing by the insured against the cash value of his policy. Since such loans reduce the amount of coverage of the policy, they are integrated with the insurance systems which must track these loans. Otherwise, these loans are like any other installment loan system.

- Regulatory Reporting - All insurance carriers (the companies) are subject to federal and state reporting requirements in addition to normal tax reporting. Insurance carriers must maintain government established ratios of surplus to exposure, reserves to open claims, and asset liquidity to total assets, among others. Most major carriers have all or segments of these reporting requirements automated, but the smaller carriers who are much greater in number, frequently spend considerable human resources in monitoring their positions and reporting on them to the proper governmental agencies.

- Underwriting Analysis - Such systems track the current risks which are insured against the characteristics of historical losses to determine the relative strengths and weaknesses of the book of business. Some firms even compare the attributes of all major potential risks against this historical data base to determine if they want to accept the risk or if

they feel they must add surcharges in higher risk situations. Typically, these systems require large data bases, modeling and graphic software, and the use of data base management systems. The more profitable insurance firms, at all size levels, are greatly concerned with their underwriting success and rely heavily on this analysis.

- Incentive Programs - Because of the essentially commission oriented nature of the insurance industry marketing system, sales incentive programs are vital to the motivation of the sales force. Most major firms, and frequently even the smaller firms, have established automated incentive programs to monitor and report on sales activity, publishing internally the results of various sales contests. Multilocation firms often use their data processing communications systems to collect and distribute timely data regarding such incentive programs. As a byproduct, payroll data is often derived.

- Other application areas, not directly identified by respondents, but frequently used by the more sophisticated insurance industry firms, are shown below. Any presentation of insurance industry applications would be incomplete without them.

  - Message Switching - Branch as well as independents establishments have a continuous need to be in touch with other offices of their own company or, in the case of independents, the home office of the insurance companies they represent. Several are using message switching services either offered in-house or provided by outside remote computing companies or communications common carriers. Often used in lieu of TWX services, they move the normal administrative "chatter" ranging from meeting schedules, to notices of change in underwriting criteria, to sales status reports, etc.

  - Proposal Preparation - Life insurance sales offices frequently prepare a proposal for insurance through the use of their computer service. Such proposals most often appear customized to the potential insured and

contain the data in attractive format relating to benefits, coverages, cash value, and premium cost. These are becoming increasingly widespread in their usage and are offered via batch, on-line, or minicomputer programs.

- Motor Vehicle Reporting - In virtually all cases, a check on the driving record of a prospective insured automobile or truck driver is made from records maintained by the state motor vehicle department. Several national and regional service companies and company home offices interface with the motor vehicle department and prepare motor vehicle reports, known as "MVRs" which are mailed or transmitted to the agent or home office where they are used in assessing the prospect's eligibility for coverage.

- Standard Insurance Forms - There are several standardized insurance forms used throughout the industry. They include applications for coverage, claims reporting, regulatory reporting, and certain policy declaration pages. Both in-house and outside services frequently have systems which include the computer preparation of such forms from information either entered via terminal or already present in their data base. Word processing equipment is sometimes used in the preparation of these forms.

- Company Interface - Although this does not refer to a specific computer application, most agents, as well as branches of larger companies, are keenly desirous of achieving a direct electronic interface between their offices and the insurance carriers they serve. Such data transmission methods can achieve substantial cost and service advantages. They rapidly replace traditional manual data delivery methods wherever they are introduced. A few innovative companies have actually achieved a virtually paperless insurance operation through company interface systems.

B. APPLICATIONS REQUIREMENTS

1. COMPUTERS

- The current alternate methods of processing branch and independent agency applications are shown in Exhibit V-2. There is a growing requirement for on-line interactive applications which provide the insurance firm with virtually instantaneous access to local or remote office data.

- As on-line technology becomes more prevalent through in-house or computer services networks, as well as through increasingly powerful minicomputers, the application processed in any other way will be the exception.

- In recent years, the greatest application growth has come from two directions. First, there continues to be a deeper penetration into the smaller firms with the installation of basic accounting systems, and the further proliferation of these systems throughout the larger firms. Secondly, and perhaps far more importantly, new uses for all types of computer equipment are being introduced at a dizzying pace. One need only attend an insurance organization convention, and they will be almost overwhelmed with the computer manufacturer and services company vendors with their equipment and application wares.

- Most of the on-line and many of the minicomputer applications in Exhibit V-2 were not available to other than the largest firms just five years ago.

2. COMMUNICATIONS

- This industry is becoming more accustomed to the use of electronic means for the collection and distribution of data. Driven by competitive market forces which give an edge to those firms which can most quickly provide the products and coverages where and when needed, as well as those having the ability to service the insured promptly, communications capabilities may well represent

EXHIBIT V-2

INDEPENDENT INSURANCE AGENTS
CURRENT METHODS OF PROCESSING INSURANCE
OFFICE APPLICATIONS

APPLICATION	BATCH	ON-LINE TERMINALS	IN-HOUSE MINI-COMPUTERS
BILLING/ACCOUNTS RECEIVABLE	X	X	X
PREMIUM ACCOUNTS PAYABLE	X	X	X
TRADE ACCOUNTS PAYABLE	X	X	X
GENERAL LEDGER	X	X	X
OPERATING FINANCIAL STATEMENTS	X	X	X
PAYROLL	X	X	X
SALES ANALYSIS	X	X	X
CLAIMS PROCESSING		X	X
RATING		X	X
POLICY ISSUANCE		X	X
MARKETING MANAGEMENT	X	X	X
COMPANY INTERFACE		X	X
MOTOR VEHICLE REPORTS		X	
STANDARD INSURANCE FORMS		X	X
REGULATORY REPORTING	X		
PREMIUM FINANCING		X	X
MASS MERCHANDISING		X	
FORECASTING/MODELING		X	
LIFE INSURANCE PROPOSALS	X	X	X
DATA BASE MANAGEMENT		X	

the difference between those firms which prosper and those who do not survive.

- The character of the insurance industry is becoming more international in scope. Over 50% of the major domestic commercial risks are being insured fully or partially by foreign insurance institutions.

  - Those firms employing communications networks and operating on a multinational level will be better prepared to service these risks.

  - This is one of the principal reasons why the leading U.S. insurance brokers have established affiliations with or actually acquired foreign insurance firms. The need for greater use of electronic communications is implicit in such organizational arrangements.

- The independent insurance agency operation is seldom independent in every respect.

  - To conduct its business it must deal with multiple sources of insurance coverage which it obtains from brokers or directly from one or more carriers.

  - To insure large commercial risks, information regarding characteristics of the risk must be passed on to the insurer.

  - Once an insurance agreement is made, a policy must be written, delivered to the insured, and properly recorded in the independent's records.

  - The insured may also be in multiple locations, further requiring communications for billings, claims, endorsements, etc. between it and its insurance source.

- As evidence of the need for communications in the insurance industry, Exhibit V-3 shows the typical parties found in the insurance transaction. At any point, there may be multiple parties involved, particularly with the larger risks.

- As an example of the increasing role of communications in the insurance industry, a New York based insurance service company recently initiated a market finder service using its computers and an international timesharing company's network.

  - Reinsurance companies can display on their terminals the reinsurance needs of subscribing brokers.

  - The companies may elect to cover the risk or seek further information about it by entering certain preset commands on their terminals.

  - This saves all parties from numerous phone calls and written correspondence normally found in seeking, securing, and placing reinsurance coverages.

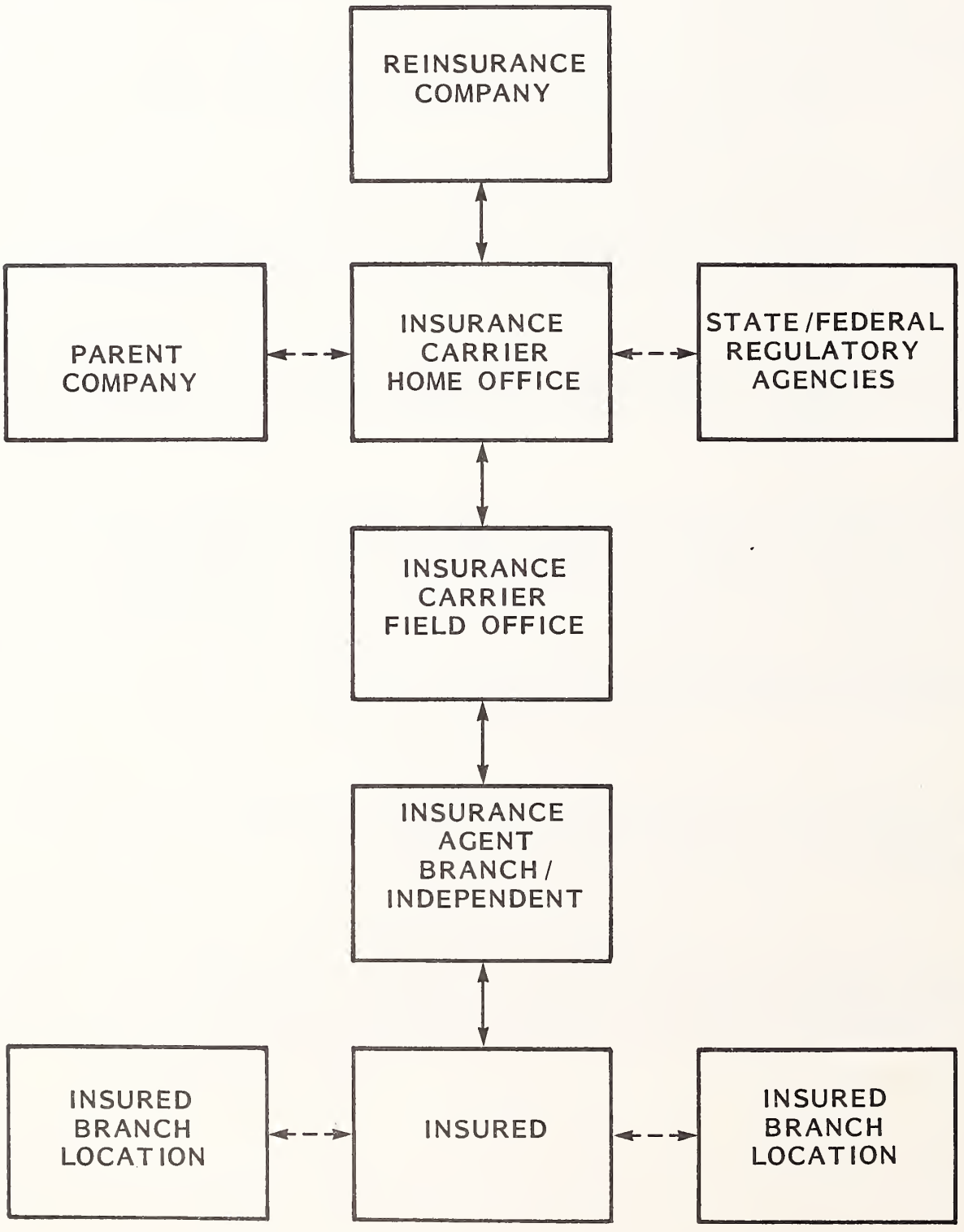
- The need for better and more special purpose telephone communications techniques is evidenced by the number of insurance firms installing WATS lines and their own leased lines. There is also evidence of an increasing demand for facsimile transmission equipment for facilitating the movement of formal insurance documents between insurance parties.

- A few firms have introduced audio response equipment for special insurance purposes, such as rating and coverage verification.

- The use of more electronic communications between insurance parties will lead to a greater demand for high speed data lines capable of transmitting a high volume of data long distances at speeds of up to 9,600 baud and beyond.

EXHIBIT V-3

INDEPENDENT INSURANCE AGENTS
PARTIES TO TYPICAL INSURANCE TRANSACTIONS



- The limitations of low speed unconditioned lines is presently inhibiting the use of more electronic communications by the insurance and other industry groups.

3. OFFICE

- The introduction of word processing equipment into insurance firms is having a profound impact on the way in which paperwork is processed.

- Word processing centers are appearing in more and more firms, replacing elements of the traditional typing pool and print shops. The users, rather than the word processing equipment manufacturers, are leading the way in creating new, imaginative applications for such equipment.

- As the word processing equipment takes on greater capacities, the distinction between computer applications and word processing applications becomes blurred.

  - With increasing storage, computational features, and communications abilities, word processing equipment is already impacting minicomputer application areas such as invoice preparation, report generation, small firm accounting, and certain areas of inventory control.

- Word processing system retrieval capabilities being used in more creative ways by insurance firms, are also impacting the computer output microfilm (COM) market. Policy data can be stored and retrieved on this equipment for varied purposes, ranging from inquiries on coverages to printing duplicate copies of policies or creating standard insurance forms.

- Chapter IV, Section C (Office Equipment) of this report identifies the reported types of documents respondents prepare on word processing equipment. The branches of large companies tend to use this equipment in application areas wherever typewriters are traditionally used. The independents appear to use it in a more limited manner for form letters and standard reports.

- The industry will continue to be paperwork intensive for many years before it converts to newer information technologies. This will require the use of all types of office equipment, including memory typewriters, office copiers, and automated document retrieval systems.

- The typical insurance transaction is almost a classic definition of distributed data processing. The parties to such transactions are often located in separate geographic areas - that is, the insured and his agent in one city and the carrier in another.

- On-line policy issuance systems which permit the immediate preparation of the policy via computer terminals at remote locations are probably the best example of the integration of computers and communication in the industry. Once this transaction is completed electronically, there is no need for physical forms delivery, manual policy typing, or separate postings to financial records.

- Word processing capabilities have already been integrated with many minicomputers now serving the industry. Software applications are in operation which automatically create thank you letters, variable follow-up letters, and printed forms as a byproduct of a single transaction processed by an on-location minicomputer; with all this being done by the computer itself. Any ancillary word processing functions are thus eliminated.

- As microprocessors have become ever more miniaturized, powerful, and common, a technology driven integration of previously perceived standalone insurance functions has taken place.

  - For example, one major insurance firm is using a modularized approach integrating its computers and word processing equipment to provide a centralized data and distributed document control system.

- When computers and word processing equipment are integrated, either locally or through an outside shared communications network, corporate controls and client servicing is facilitated.

- An example would be a word processor used to generate letters in a variable (fill in the blanks) format matched against a computer generated file of policies coming up for renewal. In this way, the insurance firm is enhancing both its control and client servicing.

VI EQUIPMENT AND SERVICES MARKETS

VI EQUIPMENT AND SERVICES MARKETS

A. SIZE OF THE MARKET

- INPUT estimates that, in 1978, the small establishments in the insurance service sector (SIC 64), spent $363 million for information processing equipment and services.
  - $91 million was spent for EDP equipment services and supplies.
  - $78 million was spent for office equipment.
  - $194 million was spent for communication equipment and services.
- EDP budgets, as a percentage of sales in the insurance industry, have been reported in INPUT's 1979 User Planning Service Annual Report to be 2.5% for establishments of under $100 million in sales.
  - The 2.5% of sales is for the total EDP budget, including payroll and fringe benefits.
  - The same INPUT study reports that the payroll and fringe benefits portion of the budget averaged 51%.

- Applying the above personnel cost percentage to the 2.5% of sales figure yields 1.225% of sales as the EDP budget for equipment, services, and supplies.

- For smaller insurance establishments, a larger portion of their budget is spent on EDP equipment, services, and supplies. Since the small establishments in this industry sector are generally well below $100 million in sales, a figure of 1.5% will be used to estimate the industry's potential outside spending on EDP equipment, services, and supplies.

- In 1978, revenues in the insurance service sector were approximately $34 billion.

  - The small establishments (under 500 employees) contributed about 94% or $28 billion.

- Assuming the small establishments can afford to spend 1.5% of their budget for EDP equipment, services, and supplies, the market potential is $420 million.

  - This market penetration level for EDP equipment, services, and supplies is 22% - the actual 1978 spending ($91 million) divided by the potential spending ($420 million).

- Insurance industry growth should average 11.5% annual growth rate (AAGR) over the next five years. Property and casualty insurance have been growing at about an AAGR of 13% during the past five years. Life insurance has only been growing at a 10% AAGR during the same period.

  - Since the premium revenue in each group is about the same, the growth can be averaged at 11.5%.

  - Revenue to the agents will grow at the same rate as the industry unless commission schedules are overhauled.

- The revenue of the insurance service sector (SIC 64) will be about $60 billion during 1983.

- There are many factors pushing the insurance agents into more and more automation. Among them are:

  - Insurance carriers are pushing towards DDP and would like their agents to at least have terminals.

  - The industry is very paperwork oriented and well suited to automated processing.

  - Declining small systems prices make equipment almost irresistible.

  - The Insurance Institute for Research is establishing an ARPA-like network, allowing agents to communicate with several insurance carriers using a single terminal.

- Automation expenditures will grow at a faster rate than the insurance industry in general.

- Total expenditures during 1983 for information processing equipment, services, and supplies is forecast at $945 million - a 21% AAGR over the $363 million spent during 1978.

  - EDP equipment, services, and supplies. $335 million

  - Office automation. $210 million

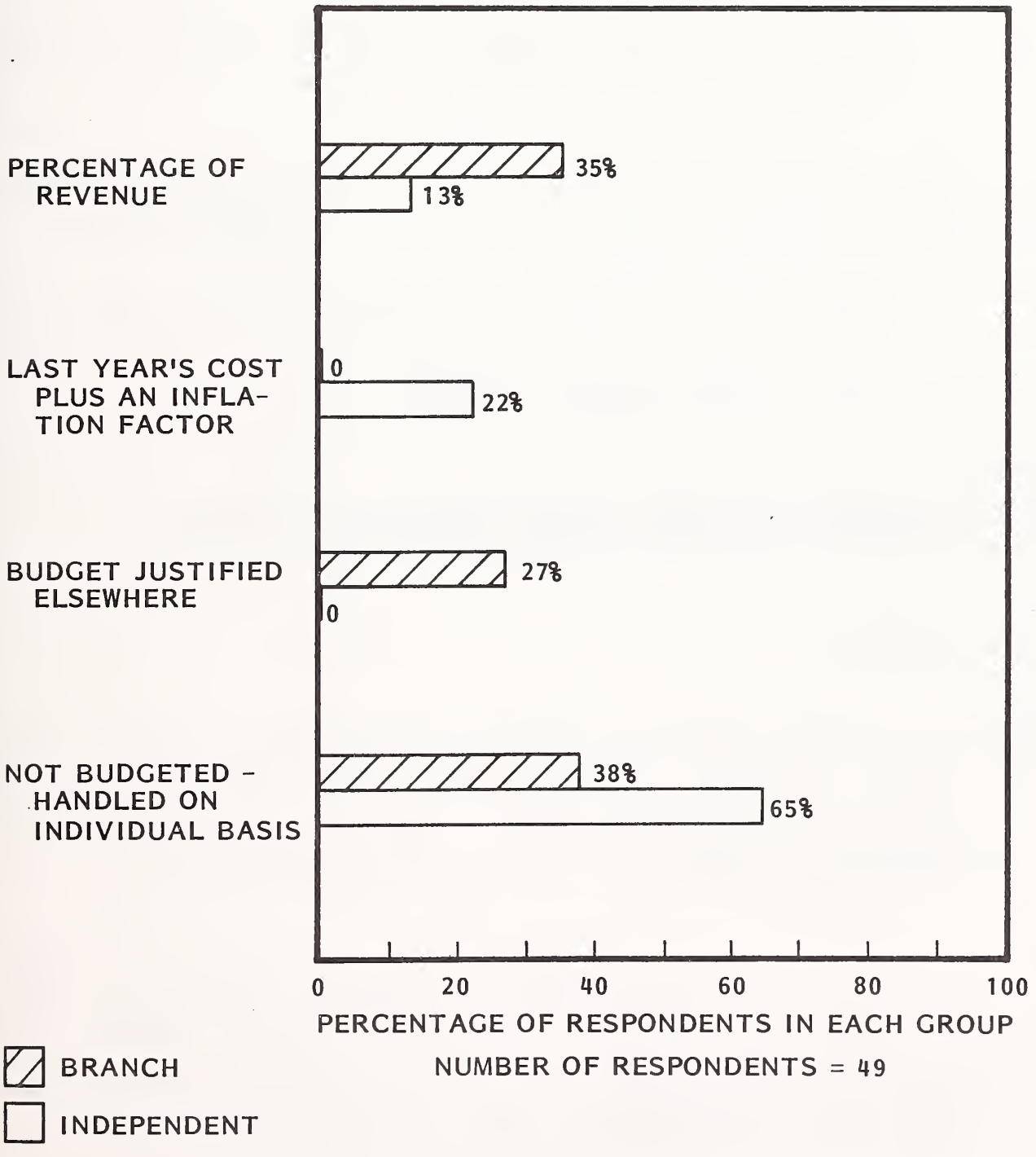
  - Communications equipment and services. $390 million

B. BASIS FOR BUDGETING

- Insurance agencies are small businesses and do very little formal budgeting.
  - Branches of large companies do more budgeting than the independent agencies primarily because the home office requires the submission of an annual budget.
- About one-third of the branches and about two-thirds of the independent agencies do not budget for specific information processing equipment and services (Exhibit VI-1).
  - These establishments examine each request separately and either work the cost into their general expenses or draw from a pool of funds set aside for such purposes.
- Other budgeting techniques are used, and they differ significantly by the type of organizational structure - branch or independent establishment.
  - Slightly more than one quarter of the branches have their budgets prepared by their parent company.
  - Another third of the branches budget for information processing equipment and services based upon a percentage of expected revenues.
  - Some independent agencies also base their capital budget on expected revenues (13%), but almost twice as many (22%) base their capital budget on last year's costs.
- These various approaches have different implications for vendors selling into this marketplace.

EXHIBIT VI-1

INDEPENDENT INSURANCE AGENTS
METHODS RESPONDENTS USE TO BUDGET FOR
INFORMATION HANDLING EQUIPMENT AND SERVICES



- The large number of establishments that are, in effect, "free wheeling" because they handle purchases on an individual basis means that the vendors can approach the customers at any time and not have to wait for a budget cycle or some other imposed barrier.

- The establishments that have a formal budget for information processing equipment generally must be approached before the budget is submitted so that sufficient funds will be included for automation equipment.

- Those establishments that budget based upon forecasted needs (percentage of revenue) can more easily justify equipment that will increase productivity.

  - Those establishments that use last year's costs to determine the equipment necessary to meet this year's needs will be the most difficult to sell new equipment and/or services.

C. POTENTIAL USE OF INFORMATION PROCESSING EQUIPMENT

1. COMPUTER

- The insurance industry will continue to be among the leading users of computer equipment. The data intensive nature of the industry will only increase as newer methods of offering insurance, such as automobile coverage through payroll deductions, are added to the traditional methods.

- As insurance firms grow in size (number of employees and volume of premiums written) they tend to become even more automated. Every respondent branch of a larger firm indicated its current use of computers, and 75% of the independents used computers. The market for computers is clearly with the larger firms in both categories - branches and independents.

- The respondents' plans to change or modify their current computer systems during the next two years is shown in Exhibit VI-2. Better than 40% of the branches plan to make some changes to upgrade their current computer arrangement within the next two years. The independents indicate an even greater propensity to change, with 85% indicating intentions to upgrade their computer usage within two years.

- Considerably greater are the intentions of independents' to modify their present system or to replace their present system with a new computer. This is an active, viable market for computer vendors.

- The respondents' rating of important factors in choosing a computer system gave greatest weight to hardware availability, upward compatibility of software, and the vendor's reputation and support (Exhibit VI-3).

- Software availability was rated low in importance by both branches and independents, whereas hardware availability was of greater importance. This suggests that many of the firms either intend to develop their own software or will purchase it from software houses. The best offering is a packaged computer hardware and software solution which contains sufficient flexibility for the user to easily adapt it to his unique needs. (It is acknowledged that this is easier said than done.)

- Since none of the respondents indicated their intention to add a computer in the near term, they are emphasizing modifications to their current system or replacing it with larger compatible equipment. Manufacturers of plug compatible equipment could find this a ready market as respondents frequently indicated their intention to add more storage or input/output devices.

- When asked specifically what advice they had for computer manufacturers, respondents generally gave strong encouragement for manufacturers to learn more about insurance industry needs and to design modular hardware systems which permit the user to easily upgrade hardware and transfer existing software to the larger configurations. Typical comments included:

EXHIBIT VI-2

INDEPENDENT INSURANCE AGENTS
RESPONDENTS' PLANS TO CHANGE OR MODIFY CURRENT
COMPUTER SYSTEM DURING THE NEXT TWO YEARS

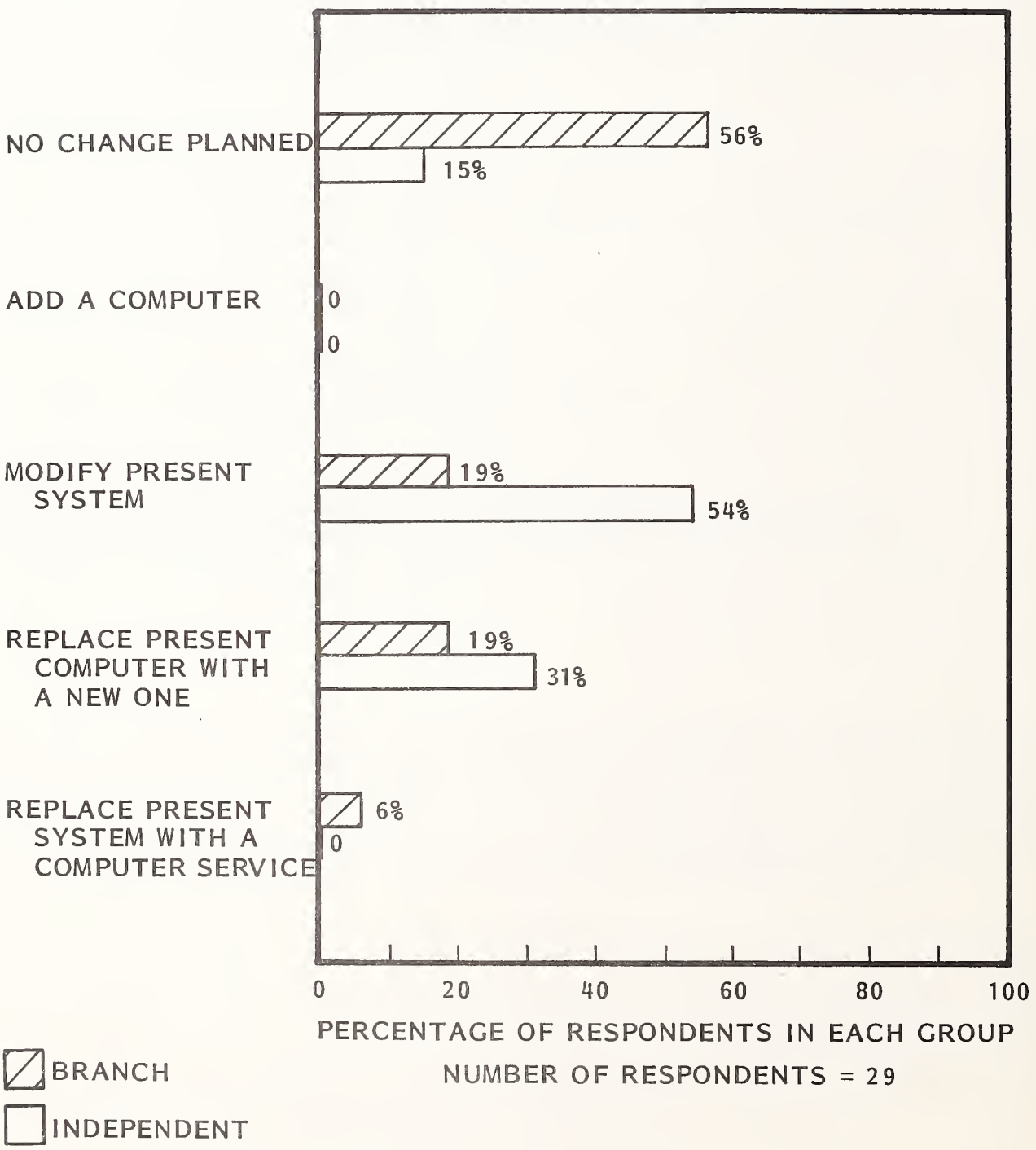
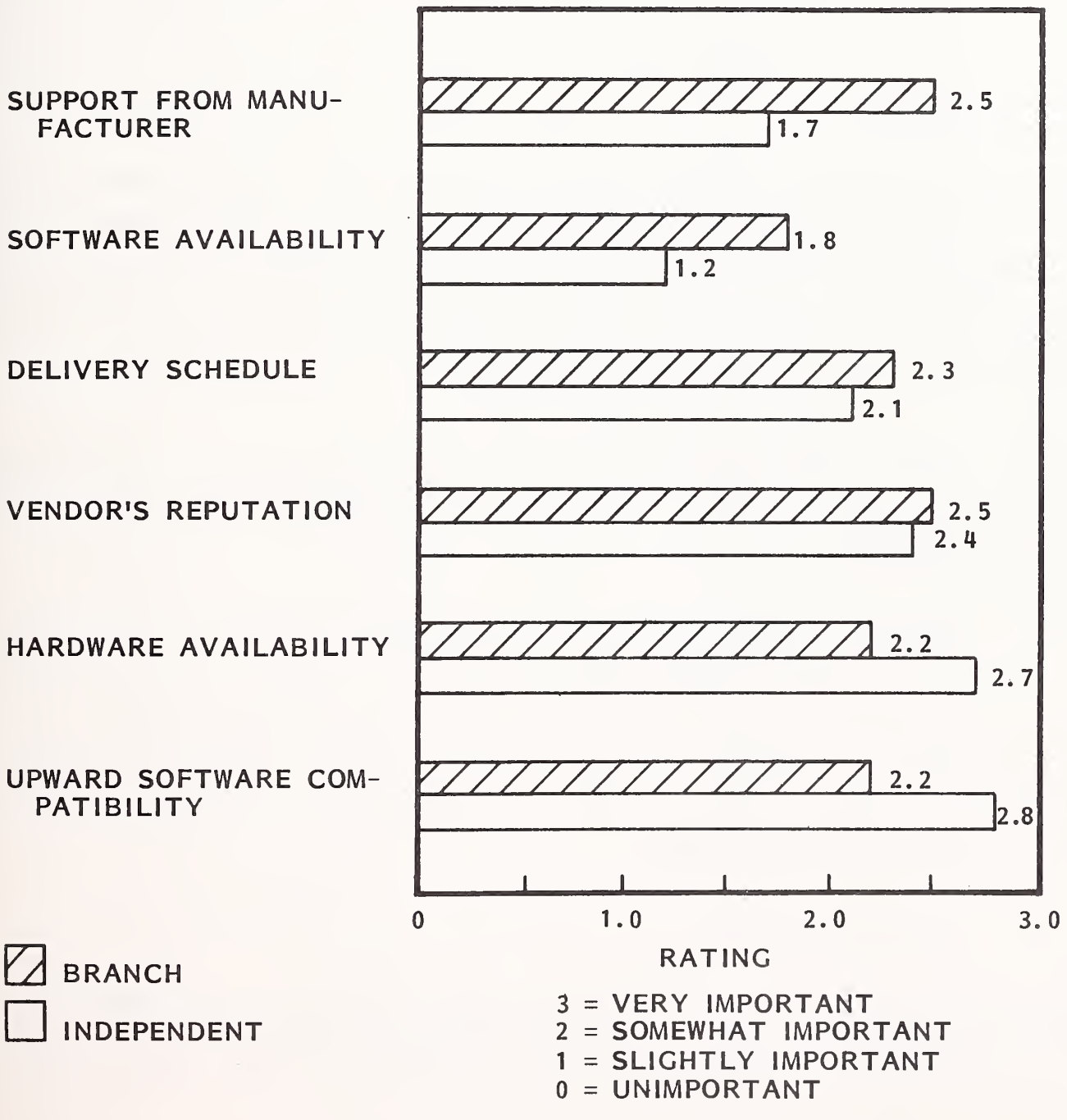


EXHIBIT VI-3

INDEPENDENT INSURANCE AGENTS
RESPONDENTS' RATING OF IMPORTANT FACTORS
IN CHOOSING A COMPUTER SYSTEM



- "Get out there and talk to the users. There is a real communications gap between users and manufacturers." (Medium size independent.)

- "Getting a system which dead ends as your company keeps going is a big problem." (Medium size independent.)

- "Need built-in capability of upgrading the system." (Large size branch.)

- No significant changes are expected by the respondents in the use of outside services during the period they are upgrading their use of computers. Only 10% indicated any intentions of replacing current services with in-house computers.

- The branches, as well as independents, will continue to rely on outside services firms for special applications, such as payroll, rating, and econometric data base access. The respondents' attitudes were reflected in comments like, "Services are very good for specific applications" and "This has been the most cost effective means of processing."

- The key advice they offer computer services companies is to emphasize the importance of software and application programs, rather than hardware capabilities.

- Computer manufacturers who plan to focus on the needs of the insurance market should recognize that it is a dynamic industry which is undergoing fundamental changes in its products, pricing, marketing strategies, and its method of delivering its service. It requires intense studying to anticipate the total needs in areas of hardware, software, and communications which will meet the industry's needs.

2. COMMUNICATIONS

- The insurance industry as a whole feels its future telephone communications needs essentially involve doing more of what it does today. That is, it sees its

needs met by adding more lines, installing more PABX systems, and extending its WATS line usage. This is likely to be a very shortsighted analysis, not yet reflecting the quantum increase in telephonic communications development brought on by the greater use of computer, word processing, and document transfer interconnects.

- The independent insurance agencies had surprisingly little to say regarding their needs for improved communications for information handling. Their most significant advice was for communications firms to work more closely with the insurance industry to anticipate the user's growing needs.

- As stated earlier in this report, the bulk of data now moving between the point of origin and the point of return goes via physical delivery methods. Within five years this could be completely reversed, with the bulk of data moving electronically. The communications impact will be enormous, creating the demand for more high speed traffic bearing lines, switching equipment, communications concentrator computers, modems, multiplexors, and related communications software. The push is coming from the large carriers, through the agents, to increase productivity and provide better service.

- Due to the apparent good service and reliable equipment provided by the Bell Telephone companies, little migration to non-Bell suppliers is seen in normal interoffice voice equipment. There will be specific geographic areas and special market segments where Bell will be vulnerable; there are numerous innovative firms competing aggressively for this business.

- As with other products and services for the insurance industry, the firms with the greatest knowledge of this industry's specific needs will do the best. For example, AT&T has had an operational division in existence since late 1977 whose sole mission is to identify the communications equipment and related services needed by the insurance industry.

- The cost of electronic communications as a percentage of total operating expenses for insurance firms is increasing, due to its greater usage and

increases in traffic tariffs. Communications equipment and service vendors are advised by the insurance industry to help the buyer make decisions based upon the true costs of his current service rather than proposed new approaches. In other words, the industry is becoming increasingly communications cost conscious and this is a prominent factor in its buying decisions.

- New generations of PABX equipment must be designed to process both voice and data signals with equal efficiency as insurance offices will wish to use these common lines for all communications needs.

- The insurance industry is a ready market for the use of advances in communications technology. These advances must be converted to pragmatic applications which give the insurance agent greater control over his relationships with his suppliers and clients. The key to such control is the availability of accurate, timely data regarding the establishment's financial strength, marketing activities, actuarial characteristics of its book of business, its financial position with its insurance sources, and knowledge of the precise status of client policies.

- The increase in importance of telecommunications is perhaps best conveyed by realizing that the world market for telecommunications will more than double by the late 1980s, with the U.S. business communications market worth more than $26 billion by 1987. The data communications insurance industry will be a sizable part of this.

3. OFFICE EQUIPMENT

- As in all other areas of data handling needs, the insurance industry will continue to be a leading candidate for advanced office equipment.

- A few of the more progressive insurance firms are taking a broader look at their office equipment needs with a view towards the office of the future. Home offices of major firms are the most likely candidates for advanced office equipment.

- Those who have already initiated studies regarding future office needs or who have installed the more advanced equipment stress the importance of being sensitive to the impact on personnel. In almost all cases cited, the introduction of such equipment made dramatic changes in the way the insurance offices traditionally operated.

- The use of word processing equipment can be expected to lead the way in increased office automation. The features of word processors judged by the respondents to be the most important are shown in Exhibit VI-4.

- Branches of large companies and independents alike stress the importance of adequate memory, speed, and the ease of reading the CRT display.

- Branches further stressed those characteristics more typically associated with computer processing, including sort capabilities, ease of information access and retrieval, list processing, and the need for a reliable storage medium.

- Among the other types of automated office data handling equipment needed or in use by the insurance industry are the following:

  - Document Storage/Retrieval File Systems - These are often large rotary filing cabinets with built-in capability to locate specific insured files based upon alphabetic and numeric access methods. They often can hold several thousand documents and can locate a desired document in a few seconds.

  - Electronic Mail Systems - Interconnecting internal and/or external offices for the rapid low-cost transmittal of all corporate communications using a shared communications network.

EXHIBIT VI-4

INDEPENDENT INSURANCE AGENTS
IMPORTANT FEATURES FOR WORD PROCESSORS

BRANCHES OF LARGE COMPANIES	INDEPENDENT ESTABLISHMENTS
MEMORY	MEMORY
EASE OF READING DISPLAY	REVERSAL ABILITY
EASY, FUNCTIONAL INSTRUCTIONS	LARGE CRT DISPLAY
SPEED	SPEED
SORTING CAPABILITY	EASE OF MAKING CORRECTIONS
EASE OF INFORMATION ACCESS AND RETRIEVAL	
LIST PROCESSING	
RELIABLE STORAGE MEDIUM	

- Document/Record Control Systems - Systems are needed to monitor and control the physical movement of paperwork files through an insurance firm. Some automated document control systems are available through in-house minicomputers or outside timesharing services.

- Document Copiers - To reproduce documents and to create standard insurance forms.

- Microfilm Storage and Display Units - Most often used for long-term data storage, although some insurance offices are using microfilm as the storage medium for all insurance records.

- The single most important feature desired in document copying equipment is high quality. Some 91% of the branch respondents and 65% of the independents named this as the most important feature, as shown in Exhibit VI-5.

- Reliability and quick repair service were also mentioned as being very important to the respondents. When asked to comment on other desired features of the equipment, the single most frequently volunteered response related to its reliability. The interpretation may be that reliability may well be of greater importance than some of the optional utility features of the equipment itself.

- Many of the respondents plan to upgrade their existing copying equipment within the next two years.

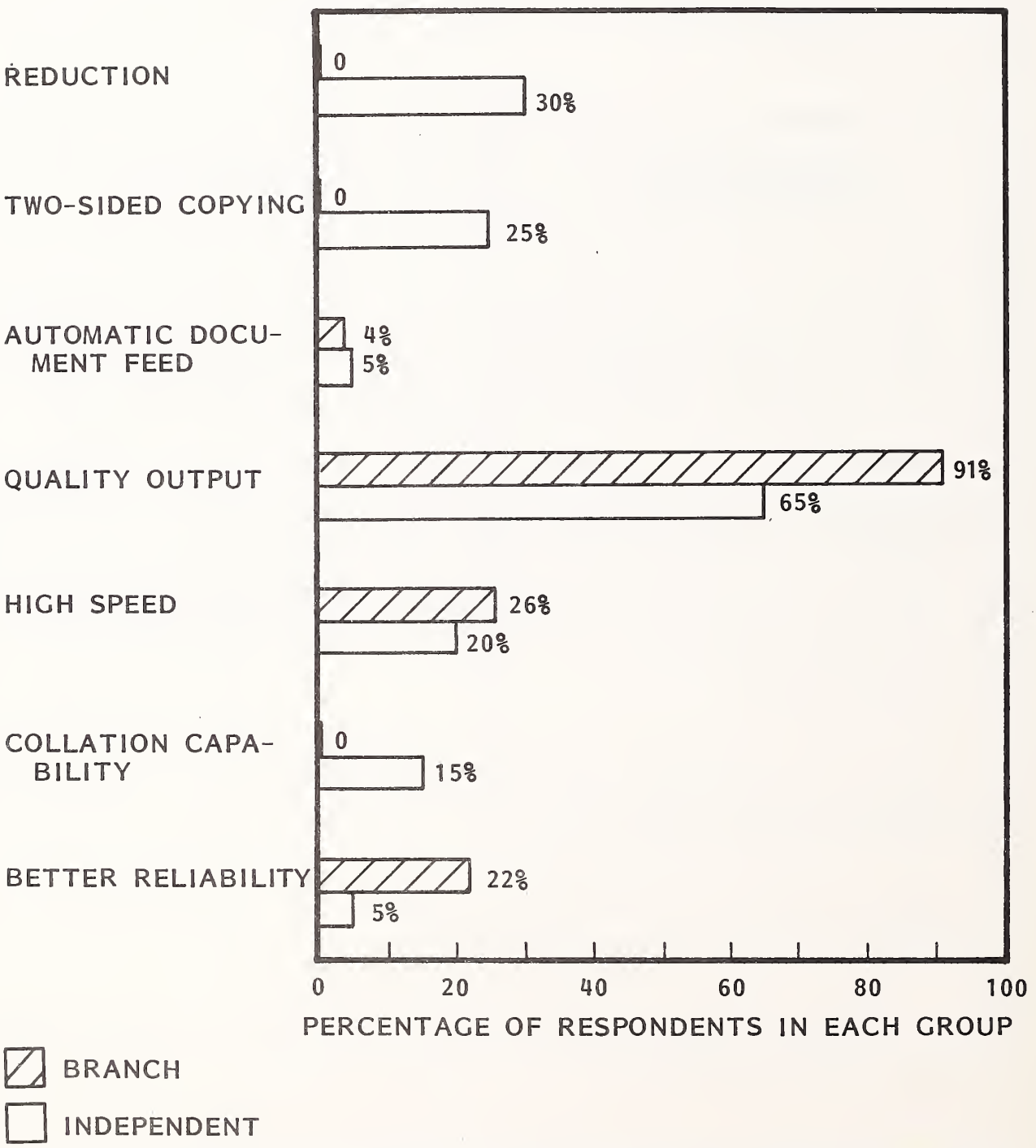
- Typical comments about current or planned use of automated office needs were:

  - "Just got word processing equipment and found it extremely helpful." (Large independent.)

  - "It takes too long to find client records!" (Large independent.)

EXHIBIT VI-5

INDEPENDENT INSURANCE AGENTS
COPYING FEATURES DESIRED



NOTE: TOTALS MAY BE GREATER THAN 100% DUE TO SELECTION OF MULTIPLE FEATURES

- "Need automatic file system - would like easier access to information." (Medium independent.)

- "Have an old coated paper copier. Want a machine that can copy anything." (Small independent.)

D. FUTURE INTEGRATION

- The intelligent accumulation, manipulation, and communication of information is the nature of the insurance industry, and these are activities not adequately served by the fragmented application of technology.

- In an industry such as insurance, the intelligent use of multidisciplinary information handling technology is now making it possible for insurance firms of all sizes to discard past methods. Branches of large firms, in particular, appear to be leading the way in all areas in the use of computer, communications, and office automation technologies.

- More than any of the other disciplines, advances in communications technology will likely be the focal point of the growth of data automation in the insurance industry. Computers of all sizes and automated office equipment must become integral parts of a solution to the data handling needs of this data dependent industry.

- Vendors to this industry are advised to study the needs of this industry as a whole, not purely from the perspective of their current specialty. The respondents to the study directly advised vendors to "get out there and learn first hand about our needs." Vendors focusing on this industry, which represents some 7% of the Gross National Product, should strive to identify where their product fits within the normal insurance transaction process and should measure its contribution to the contraction and simplification of this process.

- Specific examples of the potential for integration of computers, communications, and automated office equipment include:

  - The possibility for a prospective customer to find an insurance agent who, using his computer equipment, can locate the desired coverage, determine the customer's eligibility for that coverage, calculate the premium, issue the policy, prepare follow-up correspondence, and process the payment within a few minutes.

  - Byproducts of a traditional transaction should be the automatic updating of the electronic records of the agent and the carrier.

  - Upon inquiry from the insured, the capability of the insurance firm to quickly retrieve the appropriate policy and claims records in hard copy and/or electronic data storage form.

  - As normal endorsements occur to existing policies, the ability to rapidly retrieve and display the insured's current records, calculate the premium impact of the endorsement, issue a revised policy, post to the financial records, and write a confirming letter to the insured (with a copy to the loss payee, if appropriate).

  - Having the computer interface with branch office or independent agent computers or word processing units to advise the insured and the office of past due premium payments or the need for added coverage.

  - Sales proposals prepared by central computers or on local minicomputers being able to include the option for the local office to prepare a word processed letter which stresses the unique requirements of the proposal to that prospective customer.

- A study of the insurance industry will reveal, to those who research it thoroughly, the cyclical market characteristics which have become almost predictable, particularly in the property and casualty industry. The propitious

introduction of automated products or services which can equip an insurance firm to anticipate the potential impact of pending cycles on its book of business or marketing strategies would benefit both vendor and buyer. Application of computer capabilities and communications systems could provide the insurance firm with a valuable reaction time.

- As the insurance industry becomes more international in character (as it is rapidly doing) the need for fast communication of data from insurance wholesalers (such as Lloyds, brokers, and investment syndicates) to the local retailer is not just convenient but vital to its accomplishment.

- With fundamental changes taking place in the composition of insurance products (the coverage), their pricing and distribution is already impacting the basic structure of the insurance industry. One example is the increasingly common purchase of personal automobile or homeowners insurance through payroll deduction or bank electronic funds transfer methods. The concurrent implications on computer hardware, software, and communications is apparent.

- One suggestion to vendors to this industry is to become more perceptive to the needs and potential by entering into cooperative ventures with firms whose specialties complement their own strengths. For example, computer or word processor manufacturers may wish to embark on joint ventures with telecommunications firms.

- One example of this cooperative and integrated approach is the recent announcement by a major telecommunications firm that it is "working with office equipment vendors to develop interfaces for the new generation of intelligent office equipment, such as digital facsimile units, communicating word processors, intelligent copiers, and other devices that will make the office of the future."

VII THE PURCHASING DECISION PROCESS IN CORPORATE HEADQUARTERS OF INSURANCE AGENTS

VII THE PURCHASING DECISION PROCESS IN CORPORATE HEADQUARTERS OF INSURANCE AGENTS

A. INTRODUCTION

- The parent companies of many insurance agents are not in the insurance business.
  - Transportation companies, entertainment companies, manufacturing companies (in addition to insurance companies) were interviewed as the parent company of insurance agents.
- The large companies interviewed ranged in size from 2,000 employees to 30,000 employees.
  - Two-thirds of these companies had over 80% of their employees working in locations other than corporate headquarters.
- Branches or subsidiaries were determined to be "large" by the amount of revenue for which they were responsible.
  - Large branches or subsidiaries usually receive better service from corporate headquarters.

- Better service means their requests are examined more rapidly, honored more frequently, and they receive better equipment enabling them to stay ahead of the smaller branches.

- The purchasing process for information processing equipment and services as reported by these home offices is very similar.

  - Strong corporate control is exerted over the entire process after the need is identified by the local group.

  - In some cases, especially in the computer area, the need can be a corporate need and then the branch or subsidiary is only minimally involved in the process.

- In other industries, INPUT has found that corporate headquarters become more involved towards the end of the purchasing process, as contract signing time approaches, especially for relatively large expenditures.

  - The home offices of insurance agents tend to be more involved in the entire purchasing process for information processing and service equipment, than many other industries studied.

  - Over 60% of the corporate headquarters interviewed reported that they become solely involved in the purchasing process for equipment and services after the need is identified.

B. EDP EQUIPMENT PURCHASING

- Insurance companies are large paperwork generating companies, and as such were among the very first companies to use computers, starting about 25 years ago.

- They established corporate standards for all data processing forms, layouts, and for a variety of EDP equipment.

- As computers became less expensive and the very large agents acquired systems (like the IBM 1401, RCA 301, and H200), the corporate EDP group set up standards that pervaded the entire corporation.

  - Company-wide standards are generally the rule among insurance companies.

  - Company agents (those who sell insurance for only one company) frequently have terminals that have been distributed to all company agencies - justified by the home office only.

- In Exhibit VII-1, 73% of the corporate headquarters interviewed said they are involved right from the beginning, starting with the identification of the need for the system or subsystem.

  - As the purchasing process proceeds, this corporate involvement increases to 87% of the companies interviewed.

- There are differences, however, in the degree of corporate involvement. In the need identification phase, most of the time (53%) both the corporate EDP group and the branch are involved. Only 20% of the time the corporate EDP group solely determines the needs of the branches.

  - The corporate EDP group rapidly takes charge of the purchasing decisions. Fifty-three percent of the companies report that the corporate EDP group solely quantifies the needs of the branches.

  - By the time contract signing arrives 80% of the corporate headquarters do it without any assistance from the branches.

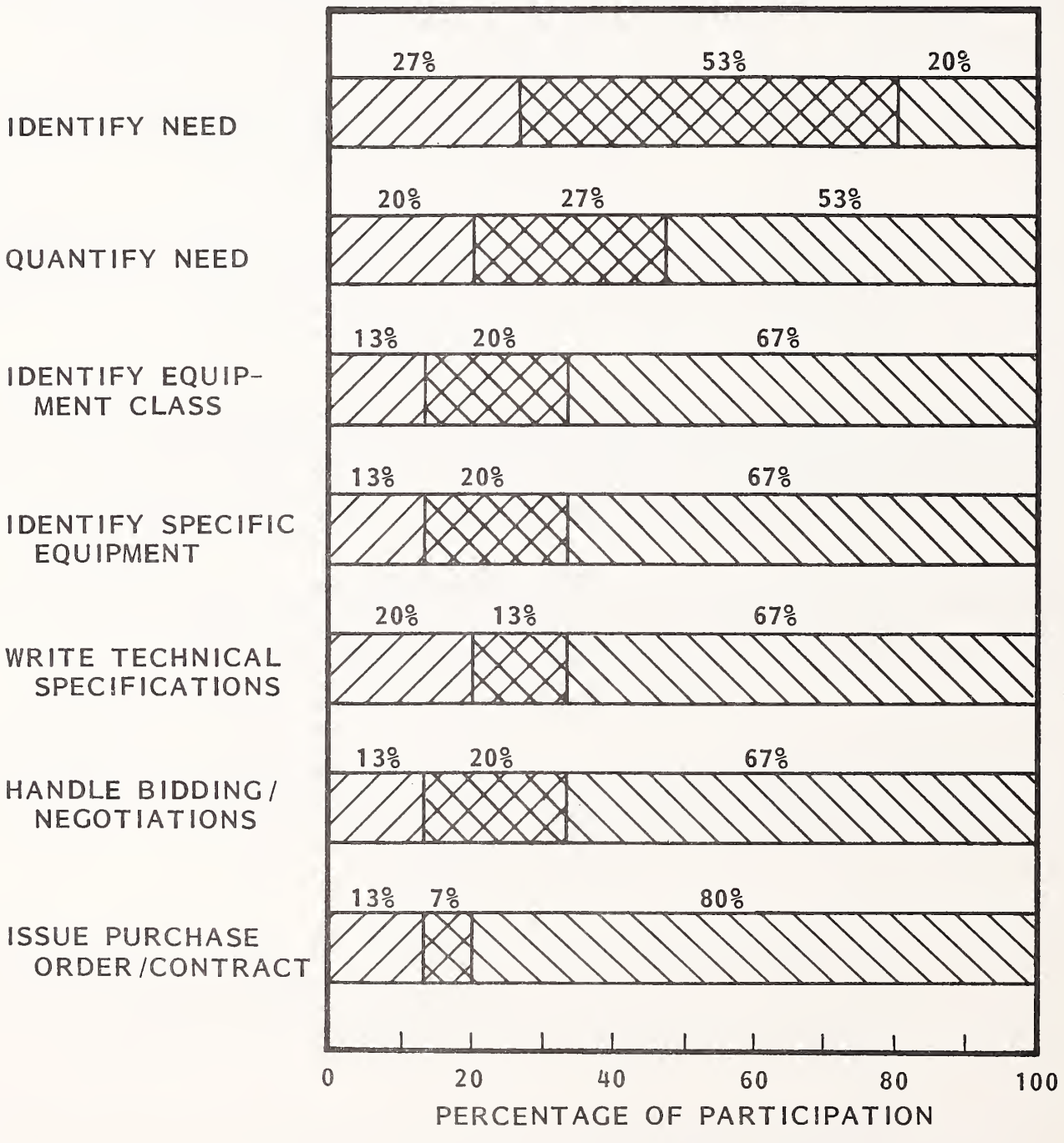
EXHIBIT VII-1

INDEPENDENT INSURANCE AGENTS

ROLES IN EDP EQUIPMENT PURCHASING DECISIONS

CORPORATE VIEWPOINT

DECISION-MAKING PHASE



- There is a certain small core of companies that feel the branches should be independent entities and the corporations are organized so that even for large dollar purchases the branches are on their own.

- Most corporate headquarters minimally require data and media compatibility between the branch system and the headquarter's mainframe.

  - Some corporate headquarters buy the equipment centrally and distribute it to the branch along with all software in order to guarantee compatibility.

  - Another approach used is for the corporate EDP group to distribute a list of approved vendors to the branches.

- This implies that to sell hardware and software to the branch insurance agencies, vendors must make contact with the home office as well as with the branch.
  - Good relations with the branch are necessary for equipment acceptance and understanding, but the products must be approved by the central EDP group.

- The purchasing cycle for EDP equipment and software is shortest when corporate headquarters control is very strong.

  - A one to three month purchase cycle is common in these companies.

  - The cycle is only greater than 12 months where very little standards or controls are passed on from the headquarters group.

- Companies make distinctions between branches and subsidiaries. Generally subsidiaries are larger and have more freedom in the EDP equipment purchasing process, but still must be compatible with home office equipment.

C. COMPUTER SERVICES PURCHASING

- Since insurance companies have been so heavily involved with computers for so long a period of time they feel there is little need to use outside services for permanent work.
  - The use of outside services is reserved for work that is temporary and requires a very short turnaround time.
- The corporate headquarters remains involved in deciding which service should be used and when.
  - Some corporate groups have national contracts for the branches to use as required.
  - Some corporate EDP groups recommend a particular services vendor, generally one who specializes in the insurance field, and make it easier for the branches to obtain service from the designated computer services vendor.
- The pattern of corporate involvement in purchasing computer services is about the same as with computer hardware.
  - After the need has been quantified two-thirds of the corporate EDP groups report taking over the rest of the purchase cycle.
  - Their involvement reaches 91% by the time contract signing is due (Exhibit VII-2).
- The approach for selling computer services to insurance branches of large companies must be similar to the approach used for selling computer equipment.

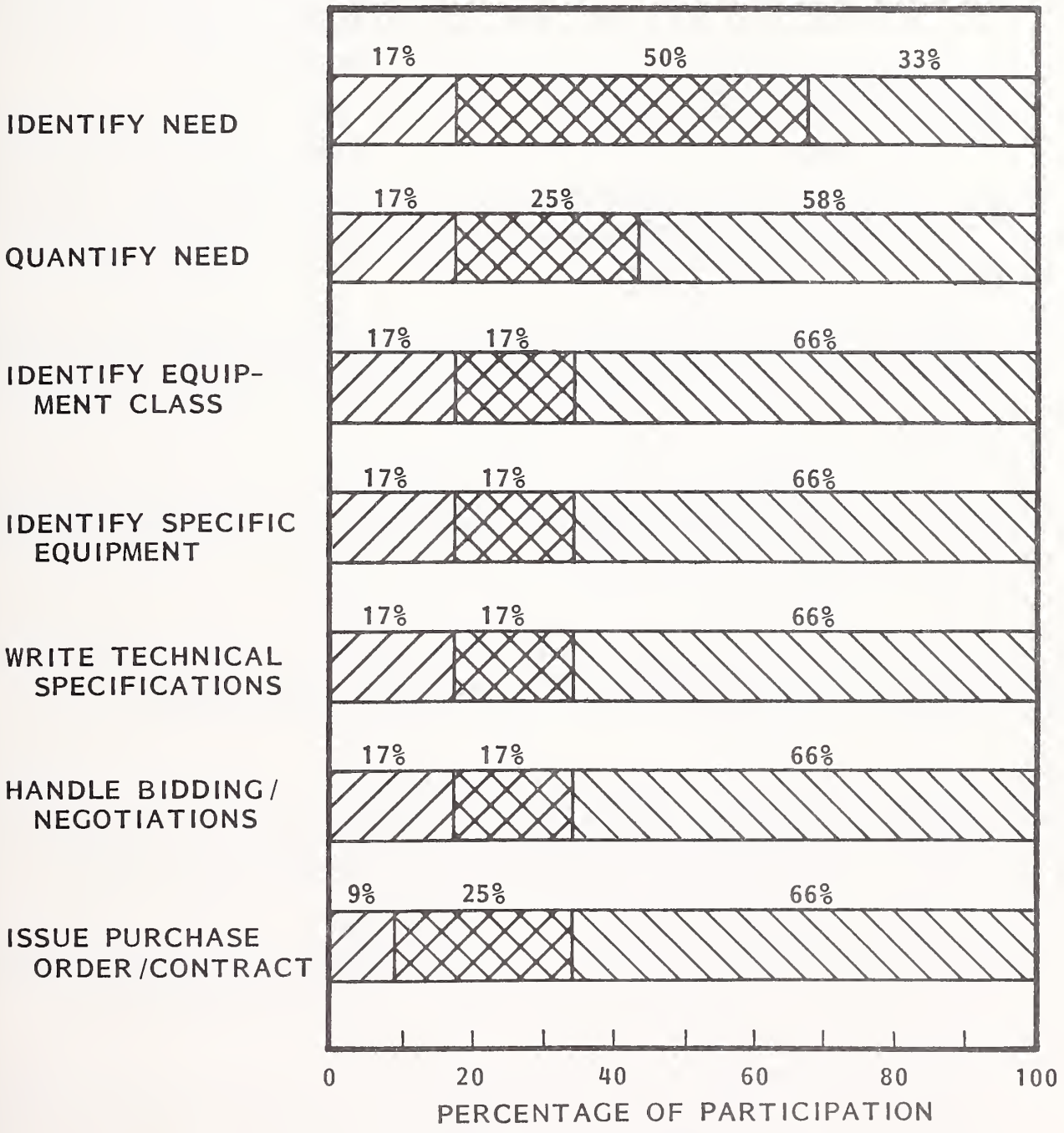
EXHIBIT VII-2

INDEPENDENT INSURANCE AGENTS

ROLES IN COMPUTER SERVICES PURCHASING DECISIONS

CORPORATE VIEWPOINT

DECISION-MAKING PHASE



- Get on the headquarters list of approved or recommended vendors.

- Let the branches know what services are available and at the same time determine some of their needs.

- Direct the selling towards their needs, stressing quick results with a minimum of detailed involvement of branch personnel.

- The selling posture should be, "Give us the technical specifications for the job and we will give accurate results in minimum time. We can do this efficiently because we are familar with your type of business."

- Despite the fact that computer services from outside vendors are used for quick turnaround applications, it still takes a comparatively long time to select a vendor.

  - One-third of the respondents reported a one to three month purchasing cycle and 25% reported a three to six month cycle.

D. COMMUNICATIONS EQUIPMENT AND SERVICES PURCHASING

- Unlike other industries studied, the insurance branches of large companies are always involved in identifying their own communications requirements.

  - Two-thirds of the branches share the need identification responsibility with their corporate communications department (Exhibit VII-3).

- After the initial phase in the purchasing cycle the corporate communications department, in the majority of the companies interviewed, takes control from the branches and completes the process by itself.

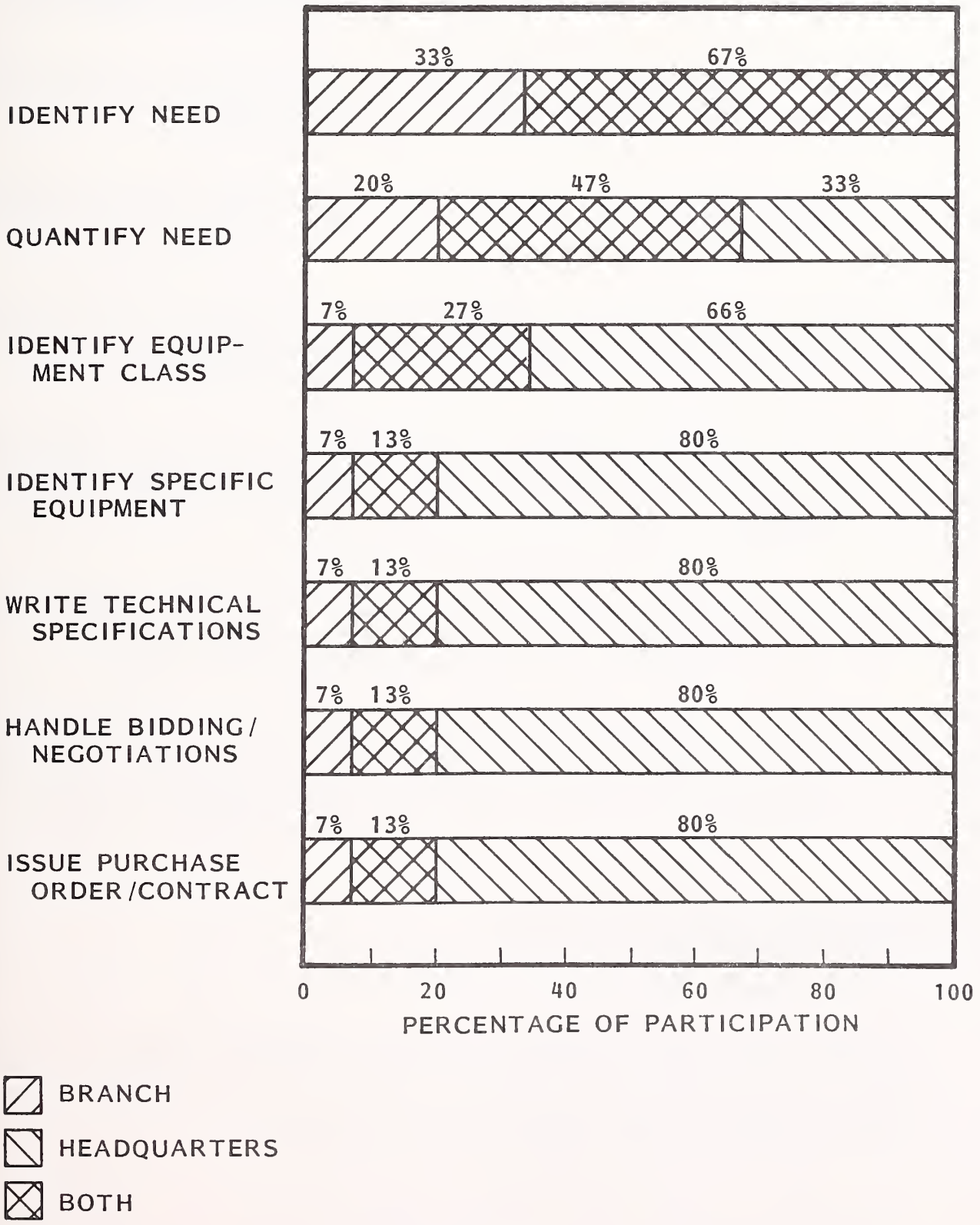
EXHIBIT VII-3

INDEPENDENT INSURANCE AGENTS

ROLES IN COMMUNICATIONS EQUIPMENT AND SERVICES

PURCHASING DECISIONS - CORPORATE VIEWPOINT

DECISION-MAKING PHASE



- Eighty percent of the corporate communications groups claimed to take sole responsibility for all phases of the purchasing process after the class of equipment is identified.

- The branches retain control in only 7% of the respondent companies.

- Some of the respondents indicated that the purchasing of communications services is less controlled than communications equipment.

  - Data communications equipment acquisition is most tightly controlled by the corporate groups.

- A little over 40% of the respondents reported a purchasing cycle of one to three months duration for communications equipment and services.

  - Another third indicated that the purchasing cycle time is dependent upon the size of the system and averaged 6-12 months for major changes.

- The larger subsidiaries of most of the companies had greater freedom than branches. Many subsidiaries have their own purchasing departments.

  - No matter how much freedom various parts of the corporations have, they must still adhere to corporate standards, expecially when the equipment or service will interface with other parts of the company.

E. OFFICE EQUIPMENT PURCHASING

- In general the role of corporate purchasing diminishes significantly when dealing with equipment that is primarily used by the remote location and has a minimal interface to other segments of the corporation.

- Office equipment is one area where the local establishment frequently does its own purchasing from a list of approved vendors and conforming to certain corporate standards.

- Large companies that have insurance branches excercise strong control over office equipment purchases (Exhibit VII-4).

  - Almost 75% of the corporate purchasing departments are solely involved in office equipment purchasing.

- The purchasing cycle for office equipment is under three months for most equipment.

  - Expensive items such as top of the line copiers and word processing equipment take longer to justify and therefore longer to purchase.

  - Word processing equipment is frequently caught in a political "tug of war" between the purchasing department who specifies desks, chairs, typewriters, etc. and the EDP department who specifies computer equipment.

- Vendors of office automation equipment can sell in two ways:

  - Contact the branch directly and sell them on the equipment and its usefulness, then let the branch do the political maneuvering within the corporate maze.

  - Another approach is to sell both the purchasing and EDP groups and hope they will recommend the equipment to the branch. Those branches that do show interest and all of the larger branches should be visited after the equipment is on the corporate "approved list."

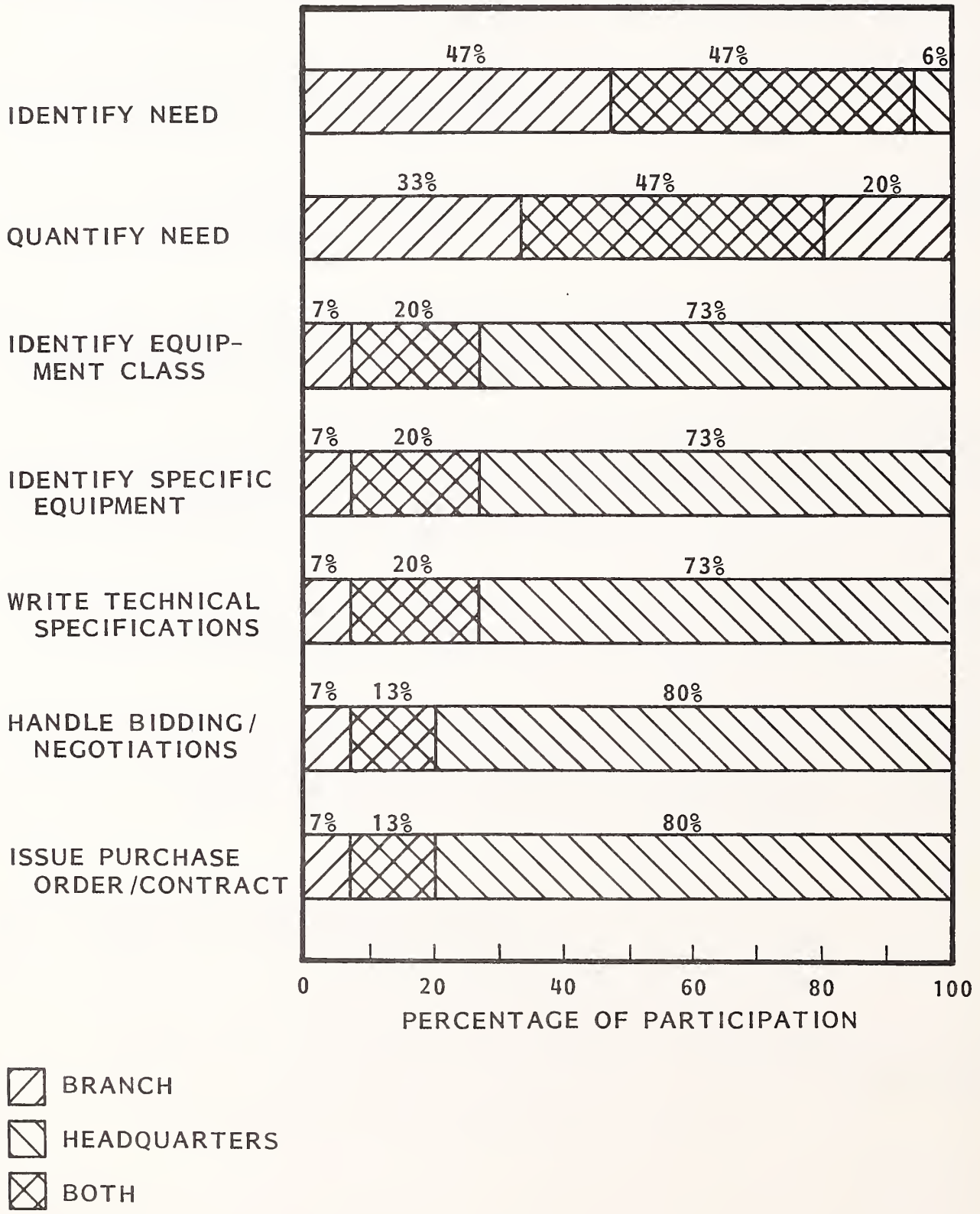
EXHIBIT VII-4

INDEPENDENT INSURANCE AGENTS

ROLES IN OFFICE EQUIPMENT PURCHASING DECISIONS

CORPORATE VIEWPOINT

DECISION-MAKING PHASE



F. SUPPLIES PURCHASING

- In the purchasing of supplies, the branches are given some control.
  - Over half of the companies allow the branches sole responsibility for identifying and quantifying their needs (Exhibit VII-5).
  - Over one-third of the companies give branches sole responsibility for the entire supplies pruchasing process.
- Information processing supplies are generally handled the same way as other supplies, although the specifications are more rigid because the media must be interchangeable between systems. The corporate EDP department usually writes the specifications for most EDP supplies.
- Corporate purchasing departments usually specify a range of acceptable items within a category, and branches may purchase within that range up to their budget allowances.
- Many companies buy in bulk and stock supplies centrally. The branches of the company then order the majority of their supplies from the company stock-room on a cyclical basis.
- EDP supplies must be sold, tested, and approved by the corporate EDP group.
  - Once that is accomplished, the vendor can sell directly to the branch office.

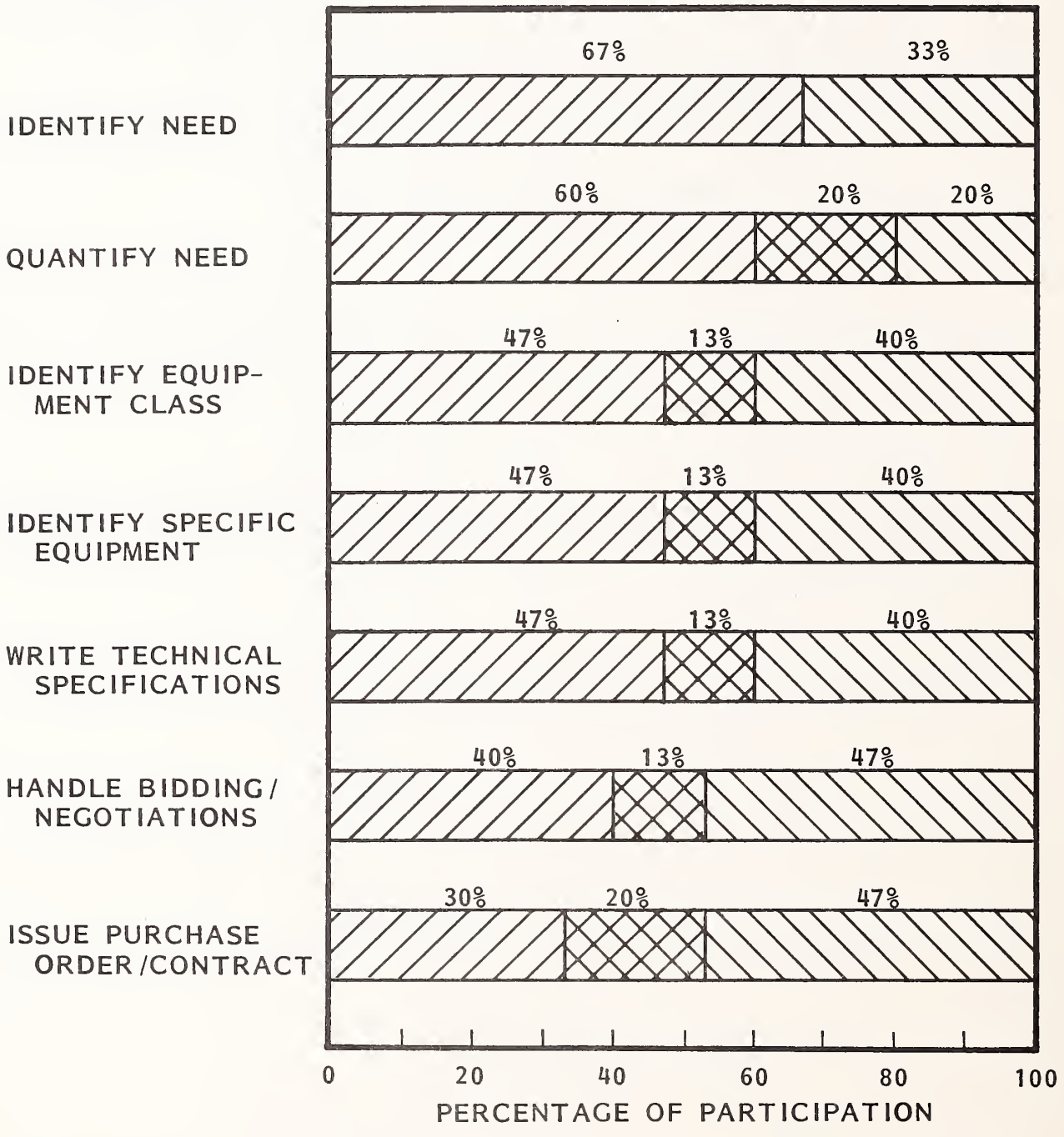
EXHIBIT VII-5

INDEPENDENT INSURANCE AGENTS

ROLES IN SUPPLIES PURCHASING DECISIONS

CORPORATE VIEWPOINT

DECISION-MAKING PHASE



BRANCH

HEADQUARTERS

BOTH

APPENDIX A: SOURCES USED

APPENDIX A: SOURCES USED

- Agency Automation Guide, Institute For Insurance Research. White Plains, NY. 1979

- Best's Review, Various Issues. A. M. Best Company, Inc. Oldwick, NJ. 1979

- County Business Patterns - U.S. Summary, U.S. Bureau of Census. Washington, D.C. 1976

- Standard Industrial Classification Manual, U.S. Office of Management and Budget. Washington, D.C. 1972

- Computer Services Markets In Insurance Companies. INPUT. Palo Alto, CA. November, 1979.

- Small Establishment Service 1979 Annual Report. INPUT. Palo Alto, CA. November, 1979.

APPENDIX B: DEFINITIONS

APPENDIX B: DEFINITIONS

- An enterprise is a business organization.
- An establishment is a physical location, or a street address and can be:
  - An independent enterprise.
  - A branch of a major enterprise.
- An establishment can be a single-unit enterprise (SUE) or part of a multi-unit enterprise (MUE).
  - A single unit enterprise is an establishment having all operations consisting of activities not distinctly separable.
  - A multi-unit enterprise is a business organization consisting of more than one establishment or an establishment having distinctly separable activities.
- A small branch is a physical location or street address having less than 500 employees and is part of a large corporation.
- A small independent establishment is a SUE or a MUE having less than 500 employees and which is not a branch.

- Computer services are provided by vendors which perform data processing functions using vendor computers, or who assist users to perform such functions on their own computers; included are remote computing services (RCS), batch services, facilities management, professional services, and software products.

- Computer equipment includes any locally installed terminal, minicomputer, or mainframe. For the purpose of forecasting only, the term is defined as locally installed general purpose minicomputer or mainframe; i.e., local processing intelligence -- not including desk top calculators or accounting machines.

- Communications equipment includes keysets or PABXs. Interconnect equipment is the attachment and use of non-telephone company equipment together with telephone company equipment or services.

- Communications services includes direct dial long distance (DDD), WATS, leased lines, tie lines, Telex/TWX, or other regulated transmission of voice or data.

- Office equipment includes word processors, photocopiers, dulication machines, facsimile equipment, memory typewriters, and word processing/text editing equipment.

- Industry specific EDP applications are defined as EDP applications which are important automatable functions of an industry or group of industries; e.g., interline payables (transportation) and bill of materials (discrete manufacturing).

- An insurance agent is a person or establishment who represents one or more insurance companies in a selling capacity.

  - An independent agent represents several insurance companies.

- A company agent sells insurance for a particular company. If a company sells more than one insurance line, they may have separate company agents for each line.

APPENDIX C: INSURANCE INSTITUTE FOR RESEARCH - BACKGROUND INFORMATION

APPENDIX C: INSURANCE INSTITUTE FOR RESEARCH - BACKGROUND INFORMATION

- The Insurance Institute for Research, Inc., of 222 Mamoroneck Avenue, White Plains, NY 10605 is a non-profit corporation formed by property and liability insurance companies and independent insurance agents. Its primary purpose is to apply the latest developments in automation to solving problems and increasing efficiency in the areas of communication and information processing.

- The Agency Automation Guide (IIR's first publication) is oriented towards preparing insurance agents for their entrance into the world of automation.

- The Guide has the following sections:

  - Types of Automation.
  - Economics of Automation.
  - Preparing an RFP.
  - Selecting Potential Vendors.
  - Choosing a Vendor.
  - Installation and Operation.

- Contracts.

- Evaluating Consultants.

- Analysis and Comparison of Service Vendors Specializing in the Insurance Field.

- The Guide lists vendors who claim to specialize in providing equipment, programs, and services to insurance agents.

  - Comparison charts are included, shows standard and optional functions offered.

  - Digests of each vendor's system are also part of the Guide.

  - A list of the vendors included in the Guide can be found in Exhibit C-1.

- The IIR is also involved in establishing a shared communications network for use by insurance companies and independent agencies.

  - Plans are to test a prototype of the network in mid-1980. It will initially involve 100 agents and a half dozen insurance companies who are already automated.

EXHIBIT C-1

VENDORS OFFERING SPECIAL INFORMATION PROCESSING PRODUCTS AND SERVICES

COMPANY	SYSTEM NAME	SYSTEM TYPE*
ADMINISTRATIVE DATA CORP. (A.D.C.)	INSURMATICS	MS
ADP NETWORK SERVICES, INC.	ADP TERMINAL SYSTEM	ITS
AGENCY RECORDS CONTROL, INC.	ARCOM I	MS
	BATCH ACCOUNTING	BS
AMERICAN DATAMATION CENTER INC.	INSURANCE INFORMATION SYSTEM	MS, ITS
AMERICAN INFORMATION DEVELOPMENT, INC.	KEYAGENT - INSURNET	MS
BAILEY AUTOMATION, INC.	DATA VIEW	BTS
ELECTRONIC TABULATING CORP.	BATCH PROCESSING	BS
	TERMINAL SYSTEM	ITS
	SUPER-MICRO RATING MACHINE	SS
IMPROVED INSURANCE SYSTEM, INC.	AMORS	MS
INSURANCE DATA SYSTEMS	INSURANCE DATA SYSTEM SERVICE BUREAU	BS
INSURANCE SYSTEMS GROUP	BIAS	MS
INSURANCE SYSTEMS, INC.	CAIR, (COMPUTER ASSISTED INSURANCE RATING)	SS

EXHIBIT C-1 (CONTD)

VENDORS OFFERING SPECIAL INFORMATION PROCESSING PRODUCTS AND SERVICES

COMPANY	SYSTEM NAME	SYSTEM TYPE*
MANAGEMENT CYBERNETICS INTERNATIONAL, INC.	MANAGEMENT CYBERNETICS ON-LINE SYSTEM	ITS
McCRACKEN COMPUTER INC.	McCRACKEN INSURANCE AGENCY MANAGEMENT SYSTEM	MS
MINICOMPUTER SYSTEMS TECHNOLOGY, INC.	ABACUS	MS
QUANTEL BUSINESS COMPUTERS	INSURANCE DATA SYSTEMS	MS
REDSHAW, INC.	REDSHAW COMPREHENSIVE INSURANCE SYSTEM	MS
SAFECOM, INC.	SAFECOM MANAGEMENT SYSTEM	MS, BS
UNITED STATES COMPUTERS, INC.	DATEX	BS
	MICRON SYSTEMS DIVISION	BTS

*LEGEND
MS = MINICOMPUTER SYSTEM (STANDALONE)
BS = MAIL-IN BATCH SYSTEM
SS = SPECIAL SYSTEM (RATING ONLY)
ITS = INTERACTIVE TERMINAL SYSTEM
BTS = BATCH TERMINAL SYSTEM

APPENDIX D: INTERVIEW PROGRAM

APPENDIX D

INTERVIEW PROGRAM

ESTABLISHMENT SIZE	RESPONDENTS		TOTAL
	INDE-PENDENTS	BRANCHES	
1-19 EMPLOYEES	7	7	14
20-99 EMPLOYEES	9	10	19
100-499 EMPLOYEES	8	10	18
SUBTOTAL	24	27	51
CORPORATE	-	-	15
TOTAL	-	-	66

APPENDIX E: QUESTIONNAIRES

SMALL ESTABLISHMENT PROGRAM

CORPORATE NEED IDENTIFICATION AND DECISION PROCESS QUESTIONNAIRE

Hello, my name is _____. I am with INPUT, an international management consulting firm located in _____. Our company has been retained by a group of clients in the office products, computer, and communications industries to better determine how they can better serve the needs of small and medium sized branches of large U.S. corporations. We are especially interested in the corporate role in buying decisons for information handling equipment and services for use at the branch or subsidiary level.

1. Please describe in general how remote locations of your organization obtain computer, office, and communications equipment and services?

2. In general, how do remote locations of your organization obtain supplies necessary to operate automated equipment:

   A. Installed at their location?

   B. Not totally installed at their location?

3. In the computer area (which includes computer and terminals of all kinds):

Please indicate which areas of your company are involved at each stage of the purchase decision.

		Remote Branch/ Subsidiary Only	Corporate Only	Both Branch & Corporate
A.	Identify Need	☐	☐	☐
B.	Quantify Need (Develop Cost Justification)	☐	☐	☐
C.	Identify a Class of Equipment for a Solution	☐	☐	☐
D.	Identify Specific Equipment by Literature/Salesmen	☐	☐	☐
E.	Write Technical Specifications	☐	☐	☐
F.	Handle Negotiations or Bidding	☐	☐	☐
G.	Issue a Purchase Order/Contract	☐	☐	☐

H. How long is the typical cycle from identification of a need to the issuance of a purchase order or contract?

☐ 1-3 Months ☐ 3-6 Months ☐ 6-12 Months

☐ 12-24 Months ☐ Over 24 Months

I. How does the decision process vary between branches, subsidiaries, and divisions?

J. How does the decision process vary between production, sales, warehousing, and administrative locations?

K. Are there corporate standards which locations must adhere to?

☐ Yes ☐ No

L. (If Yes) What are these corporate standards?

4. In the computer services area (which includes service bureau, time sharing, and contract programming):

		Remote Branch/ Subsidiary Only	Corporate Only	Both Branch & Corporate
A.	Identify Need	☐	☐	☐
B.	Quantify Need (Develop Cost Justification)	☐	☐	☐
C.	Identify a Class of Equipment for a Solution	☐	☐	☐
D.	Identify Specific Equipment by Literature/Salesmen	☐	☐	☐
E.	Write Technical Specifications	☐	☐	☐
F.	Handle Negotiations or Bidding	☐	☐	☐
G.	Issue a Purchase Order Contract	☐	☐	☐

H. How long is the typical cycle from identification of a need to the issurance of a purchase order or contract?

☐ 1-3 Months ☐ 3-6 Months ☐ 6-12 Months

☐ 12-24 Months ☐ Over 24 Months

I. How does the decision process vary between branches, subsidiaries, and divisions?

J. How does the decision process vary between production, sales, warehousing, and administrative locations?

K. Are there corporate standards which locations must adhere to?

☐ Yes ☐ No

L. (If Yes) What are these corporate standards?

5. Where is the decision made whether to use computer equipment or services?

6. In the area of office equipment which includes text (word processing, copiers, typewriters, etc.)

Please indicate which areas of your company are involved at each stage of the purchase decision.

		Remote Branch/ Subsidiary Only	Corporate Only	Both Branch & Corporate
A.	Identify Need	☐	☐	☐
B.	Quantify Need (Develop Cost Justification)	☐	☐	☐
C.	Identify a Class of Equipment for a Solution	☐	☐	☐
D.	Identify Specific Equipment by Literature/Salesmen	☐	☐	☐
E.	Write Technical Specifications	☐	☐	☐
F.	Handle Negotiations or Bidding	☐	☐	☐
G.	Issue a Purchase Order/Contract	☐	☐	☐

H. How long is the typical cycle from identification of a need to the issuance of a purchase order or contract?

☐ 1-3 Months ☐ 3-6 Months ☐ 6-12 Months

☐ 12-24 Months ☐ Over 24 Months

I. How does the decision process vary between branches, subsidiaries, and divisions?

J. How does the decision process vary between production sales, warehousing, and administrative locations?

K. Are there corporate standards which locations must adhere to?

☐ Yes ☐ No

L. (If Yes) What are these corporate standards?

7. In the area of communications (which includes equipment and services):

Please indicate which areas of your company are involved at each stage of the purchase decision.

		Remote Branch/ Subsidiary Only	Corporate Only	Both Branch & Corporate
A.	Identify Need	☐	☐	☐
B.	Quantify Need (Develop Cost Justification)	☐	☐	☐
C.	Identify a Class of Equipment for a Solution	☐	☐	☐
D.	Identify Specific Equipment by Literature/Salesmen	☐	☐	☐
E.	Write Technical Specifications	☐	☐	☐
F.	Handle Negotiations or Bidding	☐	☐	☐
G.	Issue a Purchase Order/Contract	☐	☐	☐

H. How long is the typical cycle from identification of a need to the issuance of a purchase order or contract?

☐ 1-3 Months ☐ 3-6 Months ☐ 6-12 Months

☐ 12-24 Months ☐ Over 24 Months

I. How does the decision process vary between branches, subsidiaries, and divisions?

J. How does the decision process vary between production sales, warehousing, and administrative locations?

K. Are there corporate standards which locations must adhere to?

☐ Yes ☐ No

L. (If Yes) What are these corporate standards?

M. How does the decision process differ between communication services and communications equipment?

8. In the area of supplies (which includes media for people and media for machines):

Please indicate which areas of your company are involved at each stage of the purchase decision.

		Remote Branch/ Subsidiary Only	Corporate Only	Both Branch & Corporate
A.	Identify Need	☐	☐	☐
B.	Quantify Need (Develop Cost Justification)	☐	☐	☐
C.	Identify a Class of Equipment for a Solution	☐	☐	☐
D.	Identify Specific Equipment by Literature/Salesmen	☐	☐	☐
E.	Write Technical Specifications	☐	☐	☐
F.	Handle Negotiations or Bidding	☐	☐	☐
G.	Issue a Purchase Order/ Contract	☐	☐	☐

H. How long is the typical cycle from identification of a need to the issuance of a purchase order or contract?

☐ 1-3 Months ☐ 3-6 Months ☐ 6-12 Months

☐ 12-24 Months ☐ Over 24 Months

I. How does the decision process vary between branches subsidiaries, and divisions?

J. How does the decision process vary between branches, subsidiaries, and divisions?

K. Are there corporate standards which locations must adhere to?

☐ Yes ☐ No

L. (If Yes) What are these corporate standards?

9. Describe any differences which may apply within the general category of supplies:

10. Are there any differences between branches and subsidiary locations in how the need identification and purchase process operates?

☐ Yes ☐ No

A. (If Yes) What are these differences?

11. Are there any differences in how the need identification and purchase process operates based on the size of the branch or subsidiary location?

☐ Yes ☐ No

A. (If Yes) What are these differences:

12. What constitutes a large branch or subsidiary location?

☐ A location with a large number of employees

☐ A location responsible for a large portion of generated revenue.

☐ A location with one or more resident senior staff members.

☐ Other _____

13. Does corporate involvement in need identification or purchase process decisions increase as the dollar amount of a purchase increases?

- ☐ No, the dollar amount of a purchase has no direct bearing on corporate involvement.
- ☐ Corporate gets more involved in the need identification process as the potential dollar amount necessary to fill a need increases.
- ☐ Corporate gets more involved in the purchase decisions as the potential dollar amount necessary to fill a need increases.
- ☐ Corporate gets more involved, both in the need identification process and the purchase decisions as potential dollar amount necessary to fill a need increases.

14. Corporate involvement in purchase decisions is:

- ☐ Along functional responsibility (i.e., corporate involvement for computers is limited to the data processing department).
- ☐ Limited to financial approval at the time a need is identified or equipment selected.
- ☐ Limited to financial approval at the time a budget is submitted.
- ☐ Limited to financial approval, but both in budget approval and equipment selection.
- ☐ Required along both functional and financial responsibilities.

15. Are there differences in corporate involvement in purchase decisions predicated by terms of installation agreements (purchase, rental, or lease?

☐ Yes ☐ No

A. (If Yes) What are these differences?

16. How many branches or subsidiaries are there in your company?

17. How many employees are there in your company?

18. What percent of these employees work outside of the corporate headquarters location?

19. What percentage of your branches in the following functions use data processing equipment installed at their locations?

Function	% of All Branches	% of Branches that have computer equipment installed at their location
Sales	_____	_____
Production	_____	_____
Warehousing	_____	_____
Transportation	_____	_____
Wholesale	_____	_____
Back-Office	_____	_____
Services	_____	_____

Thank you very much. To whom should we send the summary of our results: (Fill in the cover sheet or verify if previously completed.)

SMALL ESTABLISHMENT SURVEY

SECTION I: General Company Information

1. What is your company's primary business?

   _____

2. Is your location the headquarters of your company?

   Yes ( ) No ( )

   a) Is your establishment part of a larger company?

   Yes ( ) No ( )

   b) (If Yes) What is your parent company's name and primary business?

   _____

3. How many employees are there at your location? _____

4. How many employees at your location are support staff (typists, secretaries, receptionist, keypunch operators, etc.)? _____

SECTION II: Types of Improvements Needed For Information Handling

1. In your office, what are the most significant information handling problems and how do you think they may be resolved?

   _____

   _____

   _____

   _____

   a) Office equipment related - (typing, copying, dictating, and filing).

   _____

   _____

   b) Computer related: _____

   _____

   _____

   c) Communications related - (the equipment you use, the services the telephone companies provide). _____

   _____

   _____

2. What improvements do you expect to make in any of these areas in the next two years?

_____

_____

_____

SECTION III: Types of Computer Equipment and Services You Use

1. Do you presently use computer equipment or services (check all that apply)?

( ) We use a computer installed at this location.
(Go to Question III 4.)

( ) We use a computer located at another site within this company.
(Go to Question III 13.)

( ) We presently use computer services from a separate vendor.
(Go to Question III 12.)

( ) We do not use computers or computer services.

2. Why don't you use computers or computer services?

_____

_____

3. Do you plan to use computers in the future?

Yes ( ) No ( ) (Go to Question III 19)

a) If Yes, When? _____

b) If Yes, Which one(s)? _____

_____

(Go to Question III 19.)

4. What type of computer equipment do you have installed at your location?

Equipment	Make/Model	No. in Use	Approx. Cost
Small Business Computer			
Terminals			
Accounting Machines			
Other			

5. Please describe the computer system(s) you use.

   a) Internal Memory Size (K):

   b) Language used (i.e., COBOL, BASIC, FORTRAN):

   c) Type and quantity of magnetic media (i.e., tape, disk):

   d) Type and quantity of output printers:

   e) Type and quantity of CRT terminals:

6. Does your computer communicate with any other computers or terminals in a location separate from yours?

   Yes ( ) No ( )

7. Why do you feel your computer should be installed at your location instead of using computer services?

8. Are you satisfied with your computer system?

   Yes ( ) No ( )

   a) Why?

   b) What changes would you like?

9. Do you plan to buy another computer or to change your present computer system in the next 5 years?

( ) No Change ( ) Add An Additional Computer ( ) Modify Our Present Computer

( ) Replace Present Computer With A New One ( ) Replace Present Computer With A Service

10. How do you prefer to acquire computer equipment?

Rent ( ) Lease ( ) Purchase ( )

11. What advice do you have for computer manufacturers?
(If computer services are also use, continue with Question III 14, otherwise skip to Question III 22.)

12. What computer services do you use?

Name of Service Co.	Type of Service Used	Applications

13. How do you send and receive data to and from the service?

( ) Interactively

( ) By remote batch terminals

( ) Mail

( ) Other

14. What is the best way for you to pay for computer services?

( ) Pay by transaction

( ) Pay by time

( ) Pay a flat monthly rate

( ) Other

15. How does this differ from the way you now pay for computer services?

16. Will you replace the use of computer services by a computer?

Yes ( ) No ( )

a) If Yes, What type of computer?

17. What advice do you have to computer service companies?

18. How do you normally obtain your computer programs?

( ) We use the standard programs supplied by the manufacturer, no modifications.

( ) Use programs supplied by manufacturers which were modified to fit our situation. Programs modified by: _____

( ) They were written for us by a software house.

( ) We prefer to write our own programs.

19. How important are the following factors in choosing computer equipment, services, or software?

FACTORS	Very Important	Somewhat Important	Slightly Important	Unimportant
Support in using the computer or writing the programs?				
Availability of additional software				
Delivery schedule				
Reputation of vendor				
Availability of additional equipment				
Hardware upgradability with software compatibility				
Other _____ (specify)				

20. What applications do you use your computer/computer services for?

Applications	Now Manual	Now Automated		Expect to Automate Within Five Years
		Inhouse	Service	
Marketing & Sales				
Order Entry				
Sales Analysis				
Credit Authorization				
Other _____				
Finance-Accounting				
Payroll				
Billing				
Accts. Receivable				
Accts. Payable				
General Ledger				
Other _____				
Warehousing-Distribution				
Order Allocation				
Shipping				
Stock Replenishment				
Other _____				
Purchasing				
Inventory Control				
Receiving				
Other _____				
Manufacturing				
Bill of Materials				
Shop Floor Control				
Order Tracking				
Material Requirements/Planning				
Scheduling				
Job Costing				
Estimating				
Numerical Control				
Other _____				
R & D				
Analysis/Design				
Other _____				

SECTION IV: Use of Communications

1. What type of communications equipment do you have installed at your location?

Type of Equipment	Make/Model	Number In Use	Number of Outside Lines
Keyset (one button for each outside line)			
PABX (central telephone answering)			
Facsimile			
Other _____			

2. What type of communications services do you use at your location?

Type of Service	Supplier	Number In Use	Restrictions (Band, Hours/Mo., etc.)
WATS Lines			
TELEX/TWX			
Leased Lines			
Non-telephone Co. supplied services			
Other _____			

3. Do you use communications equipment provided by:

( ) Bell Telephone

( ) Independent Telephone Companies

( ) Equipment suppliers who don't supply communications services.

a) Why?

4. What type of documents do you transmit via facsimile equipment?

5. Please describe any changes in your use of communications expected in the next two years..

6. What advice do you have for communications equipment and service suppliers?

SECTION V: Use of Office Equipment at Your Location.

1. What office equipment do you have installed at your location?

Typewriters and Word Processors	Make/Model	Number In Use	Average No. Of Pgs./Day
Typewriters			
Memory Typewriters			
Stand-Alone Word Processors			
Shared Logic Word Processors			
Copy and Duplication Equipment	**Make/Model**	**Number In Use**	**Average No. Of Copies/Day**
Coated Paper Copiers			
Plain Paper Copiers			
Duplicators			

2. How do you prefer to acquire office equipment?

   Rent ( ) Lease ( ) Purchase ( )

   Why?

3. Do you use word processors?

   Yes ( ) No ( )

   a) Why?

   b) If Yes, Go to Question V 5.

4. If you are not a user of word processing equipment, do you plan to be a user in the next 5 years?

   Yes ( ) No ( )

   a) Why?

   b) Under what circumstances would you use word processors? (Go to Question V 9.)

5. What are the two most important types of documents prepared on your word processor?

   1. _____

   2. _____

6. What are the four most important features for word processors (i.e., CRT, Memory Size, Automatic Hyphenation, and Document Retrieval)?

   1. _____

   2. _____

   3. _____

   4. _____

7. Do you plan to use your word processor to communicate (electronically) within the next 5 years?

   ( ) Do Now ( ) Will Use Communications within five years

   ( ) Not Sure ( ) No

8. What advice do you have for word processor manufacturers?

9. What features do you want on a copier?

( ) Reduction
( ) 2 sided copying
( ) Document Feed
( ) Other _____
( ) Quality of output
( ) Speed (copies/minute)
( ) Collating

SECTION VI: Revenues and Expenditures at Your Location

(Please do nost include any other locations of your company.)

1. Please indicate in which range your (your location) total revenue falls.

( ) Under $300,000
( ) $300,000 to $1 Million
( ) $1 Million to $2.5 Million
( ) $2.5 Million to $10 Million
( ) $10 Million to $25 Million
( ) $25 Million or more
( ) Not applicable, none

2. How do you budget your administrative expenses?

( ) The budget is based on a percentage of revenues.
( ) The budget is based on last years personnel and consumable costs plus an allowance for inflation.
( ) Budgets and expenditures are justified elsewhere.
( ) Treat new office equipment as non-budgeted capital investment and handle on an individual basis.
( ) Other _____

3. Please indicate which range most accurately represents annual outside expenditures for computer, office, and communications equipment and services. Please do not include salary paid to your own employees to operate the equipment.

EQUIPMENT	Less than $1500 per mo.)	$1500-2999 ($125-250 per mo.)	$3000-8999 ($250-750 per mo.)	$9000-29,999 ($750-2500 per mo.)	$30,000-77,999 ($2500-6500 per mo.)	$78,000-179,999 ($6500-15,000 per mo.)	$180,000 + ($15,000 + per mo.)
Phone expenses paid to phone co. for equipment and services							
Other Communications equip. and services							
Computer equipment (computers/ terminals --exclude desk top units							
Computer services (Time-sharing or Batch)							
Computer Software (Soft. prod./ services)							
Office equip. (copiers, typewriters, text editors)							