

Information  
Services  
Program  
(ISP)

**Information  
Systems  
Planning  
Report**

**"Other"  
Industry Sector**



**INPUT<sup>®</sup>**



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**INFORMATION SYSTEMS  
PLANNING REPORT**

**"OTHER"  
INDUSTRY SECTOR**



**INFORMATION SYSTEMS  
PLANNING REPORT**

**1987**



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***Information Systems Planning Report  
"Other" Industry Sector***

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the 1990s, the number of people in the world who are under 15 years of age has increased from 1.1 billion to 1.3 billion. The number of people aged 65 and over has increased from 200 million to 300 million. The number of people aged 15–64 years has increased from 2.5 billion to 3.5 billion.

There are a number of reasons for the increase in the number of people in the world. One of the main reasons is the increase in life expectancy. People are living longer and longer, and this is increasing the number of people in the world.

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# Exhibits

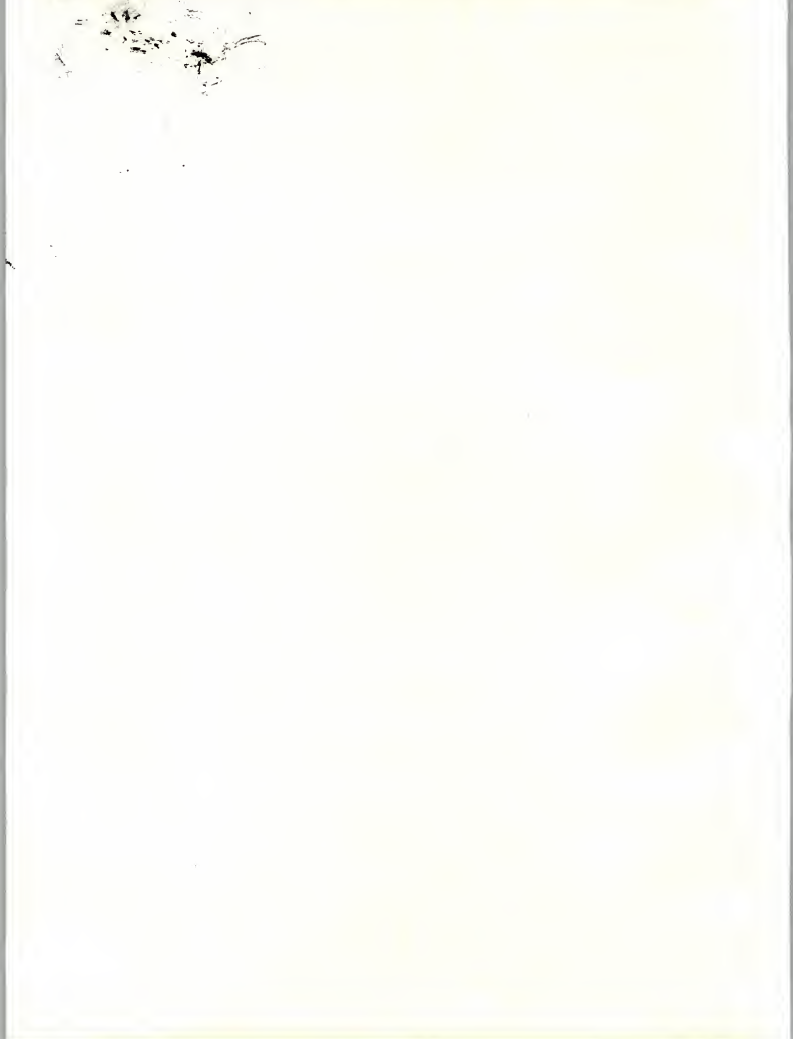
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## Introduction





## I

## Introduction

The "Other" Industry sector includes a number of industry segments which do not fit conveniently into any of the vertical market sectors INPUT reports on. This report covers six distinct segments as follows (see Exhibit I-1).

- Hotel/Motel includes lodging chains, inns, and resorts but not restaurants; the retail distribution industry sector report covers restaurants.
- Agriculture includes grain, produce, and livestock farms but not farm suppliers.
- Construction includes specialized construction firms as well as land developers and contractors.
- Recreation and entertainment includes theaters, sports, motion pictures, TV, and radio.
- Automotive services includes automobile rental agencies as well as automotive repair services.
- Non-profits and membership organizations includes non-profit philanthropic organizations, associations, and membership clubs.





EXHIBIT I-1

**"OTHER" INDUSTRY  
SECTOR**

- Hotel/Motel
- Agriculture
- Construction
- Recreation/Entertainment
- Automotive Services
- Non-Profit/Membership Organizations

the 1990s, the number of people in the UK who are aged 65 and over has increased from 10.5 million to 13.5 million, and the number of people aged 75 and over has increased from 5.5 million to 7.5 million (Office for National Statistics 2000).

There is a growing awareness of the need to address the needs of older people, and the need to ensure that the health care system is able to meet the needs of older people. The Department of Health (2000) has published a strategy for older people, which sets out the government's commitment to older people and the need to ensure that the health care system is able to meet the needs of older people.

The strategy for older people (Department of Health 2000) sets out the government's commitment to older people and the need to ensure that the health care system is able to meet the needs of older people. The strategy is based on the following principles:

- Older people should be able to live independently and actively in their own homes.
- Older people should be able to access the services they need to live independently and actively in their own homes.
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## Major Issues



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**II****Major Issues****A****Driving Forces**

Driving forces for this segment are varied because of the variety of industry segments covered (see Exhibit II-1).

## EXHIBIT II-1

**"OTHER" INDUSTRY DRIVING FORCES****Hotel/Motel**

- Stiff Competition
- Saturated Market

**Construction**

- Industry Cycles
- Complexity of Construction

**Agriculture**

- Weak Farm Economy

**Recreation/Entertainment**

- Changing Consumer Preferences

**Automotive Services**

- Competition for Repeat Customers

**Non-profits**

- Special Financing Challenges

the 1990s, the number of people with a mental health problem has increased in Hong Kong.

There are a number of reasons for this increase. First, the population of Hong Kong has increased from 4.5 million in 1980 to 6.5 million in 1995. Second, the prevalence of mental health problems has increased. Third, the awareness of mental health problems has increased. Fourth, the stigma associated with mental health problems has decreased.

The increase in the number of people with a mental health problem has led to a corresponding increase in the number of people seeking help from mental health services. In 1980, there were 1000 people seeking help from mental health services. In 1995, there were 2000 people seeking help from mental health services.

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Tax reform is changing accounting policies and procedures. This forces Information Systems departments to adapt existing accounting systems to the new rules.

Advancing network technology and ever more powerful personal computers are driving change toward decentralized systems in all industries.

### **1. Hotel/Motel**

This industry is driven by a need to attract customers and cultivate chain loyalty. The market for hotel/motel services is nearly saturated, so growth for individual companies depends on their ability to develop a base of loyal repeat customers and to woo customers away from other chains. IS for the hotel/motel industry is focusing on improving customer service.

### **2. Construction**

The construction industry is on the down side of its current cycle and is likely to continue on that course throughout 1987. As a result, IS departments are working particularly hard to help minimize corporate as well as IS costs.

Perhaps the most important factor influencing IS in construction is the nature of construction management. Job sites change frequently, and use of subcontractors makes organizing a construction project very complex. Coordinating computer systems under these conditions is difficult.

### **3. Agriculture**

The sagging farm economy makes cost reduction a top priority in this segment. Most survey respondents claimed to be feeling pressure imposed by the weak farm economy. The need to be competitive in an unhealthy market is the primary motivating force for IS managers in agriculture.

### **4. Recreation/Entertainment**

Consumer tastes and preferences drive the recreation/entertainment industry, and providing the means for monitoring tastes and preferences is a key job of the IS department.

### **5. Automotive Services**

Like the hotel/motel segment, the automotive services segment is driven by the high level of competition for customers. In auto rentals and auto





repair, convenience and service differentiate rental agencies and garages from their competitors.

## 6. Non-Profit/Membership Organizations

Financing is a constant driving force for non-profits. Since the sources of income for non-profits are usually not direct benefactors of their services, there is an unusual challenge here to raise money through means outside of the principal activity or objective of the organization.

Although associations derive a large portion of income from dues from their direct benefactors, sources of income such as investments and unrelated business activities are more important to associations than to for-profit businesses. Running on a trim budget and managing information are chief concerns for associations.

Membership organizations are driven by the need to provide services and maintain member records.

## B

### Issues and Objectives

While most issues and objectives are segment-specific, a few are common to IS departments in all the segments covered in this report (see Exhibit II-1).

Adjusting accounting systems to changes imposed by tax reform is an immediate objective for all IS departments.

Distributed systems and large numbers of isolated PCs provide a new management challenge for IS directors. With the number of end users increasing all the time, managing a company's information systems is increasingly a job of managing people. For some IS directors, the attitudes of upper management are an obstacle to implementing effective computer systems. Management's resistance to change was a recurring peeve of IS management in most of the sample.

#### 1. Hotel/Motel

IS supports the entire company, so its objectives mirror those of the company as a whole. The basic objectives of any hotel/motel are:

- Keep occupancy high
- Keep operating costs down
- Protect and entertain guests

the 1990s, the number of people in the world who are under 15 years of age has increased from 1.1 billion to 1.3 billion, and the number of people aged 65 and over has increased from 0.2 billion to 0.4 billion (United Nations 2002).

There are a number of reasons why the world population is increasing. One of the main reasons is that the number of children born to each woman has increased. This is due to a number of factors, including the fact that women are having children at a younger age, and that there is a higher birth rate in developing countries. Another reason is that the number of people who are surviving to old age has increased. This is due to a number of factors, including the fact that people are living longer, and that there is a higher life expectancy in developed countries.

The increase in the world population has a number of implications. One of the main implications is that there is a greater demand for resources, such as food, water, and energy. This is because there are more people who need these resources. Another implication is that there is a greater demand for housing and infrastructure. This is because there are more people who need these things. The increase in the world population also has a number of social implications, such as the fact that there are more people who are poor, and that there is a greater need for social services.

There are a number of ways in which the world population can be reduced. One of the main ways is by reducing the number of children born to each woman. This can be done by a number of ways, including the fact that women are having children at a later age, and that there is a lower birth rate in developed countries. Another way is by reducing the number of people who are surviving to old age. This can be done by a number of ways, including the fact that people are living shorter, and that there is a lower life expectancy in developed countries.

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System integration is an important objective of hotel/motel IS departments. Many IS departments have installed automation of various functions, one piece at a time, without much concern for forming an integrated system. Two problems have arisen from this lack of integration:

- a. Data entry clerks may have to enter one set of data to several different systems. For example, payroll and hotel security applications both require information about employees' working hours, but the systems are seldom integrated.
- b. The uncoordinated mass of automation is difficult to manage.

Both of these problems can be alleviated by integration. Since integration after the fact is difficult, IS managers are approaching this problem in two ways.

- a. System overhaul - design and implement a completely new integrated system, usually with the aid of outside consultants and system designers.
- b. Gradual replacement - replace old applications one at a time with new ones which can eventually become part of a well integrated whole.

## **2. Construction**

Conversion to distributed or decentralized systems is an immediate objective for IS departments in those segments which can afford such luxuries (single-family residential and public works), but a low priority for firms in the office and multi-family housing segments.

## **3. Agriculture**

Respondents in the agriculture segment cited a wide variety of issues and objectives, including integration of applications, utilization of strategic capabilities of information systems to improve marketing, and optimization of cost efficiency in order to survive the poor farm economy. Controlling costs and optimizing efficiency are common threads among a large majority of responses.

## **4. Recreation/Entertainment**

Improved data collection and analysis techniques to increase effectiveness of sales and demographic analysis and marketing are primary objections.

For movie, TV, and theater productions, maintaining the technical quality of the finished product is an important objective. IS can contribute to



achieving this objective with scheduling and production automation systems.

### **5. Automotive Services**

With customer service a top priority, rental agencies and garages seek to maintain or install reservation systems, fleet maintenance systems, and computer diagnostic systems that will provide competitive customer service and vehicle reliability.

In the automotive repair business some shops can claim significant differentiation or services through computer diagnostics. For example, for its newest cars Ford has developed an on-board computer that can connect with diagnostic systems in dealers' service bays to provide instant diagnostics in some cases. Ford also provides an on-line data base to assist with more complex diagnostics and repairs.

### **6. Non-Profit/Membership Organizations**

There has been some controversy in the non-profit segment over a financing strategy called "piggy-backing." Non-profits establish peripheral, profitable businesses to help finance their mainline non-profit operations. The controversy is that the profitable businesses of a non-profit organization may have an unfair advantage in the marketplace due to tax-exempt status.

The fundamental objectives of IS in the non-profit segment are:

- Provide basic accounting and office applications
- Facilitate fund raising

Association management is somewhere between for-profit and non-profit management. A large portion of income is derived from membership dues and fees for services provided directly to members, but associations must also tap other income sources. Associations are sources of information for an industry, and must manage and disperse that information through data bases and other information management systems.



## EXHIBIT II-2

**"OTHER" INDUSTRY DRIVING FORCES****General**

- Adjust Old Accounting Systems to New Tax Laws
- Encourage End-User Computing

**Hotel/Motel**

- Integrate Systems

**Construction**

- Coordinate Field Systems With Corporate Systems

**Agriculture**

- Control Costs and Optimize Efficiency

**Recreation/Entertainment**

- Pursue Improvements in POS for Data Collection

**Automotive**

- Improve Customer Service

**Non-Profit/Membership Organizations**

- Manage Fundraising
- Manage Information

**B****Impact of  
New Technology****1. Hotel/Motel**

Video conferencing has two opposing effects: It diminishes the need for business travel, and thus diminishes demand for lodging facilities, but if hotels and motels become providers of video conferencing services, they may make up for some of the business lost to the technology.





Property management systems act as information system hubs, tying disparate functions into one system.

Electronic locking systems are a relatively recent development which reduces theft and significantly eliminates the cost of re-keying rooms.

Energy management systems are essential for large properties since a 10 percent reduction in energy costs can represent significant savings. Energy management systems optimize air-conditioning and heating by automatically shutting them off in vacant rooms and by turning certain lights off automatically at appropriate times.

## 2. Construction

Computer technology has been slow to take hold in the construction industry because of the unusual nature of construction projects: no construction site is permanent, and the organization or labor changes constantly as subcontractors come and go. Automation of field operations is the area of most rapid development in IS in construction.

Until recently, IS for construction consisted almost entirely of accounting and office applications. The change is due to increasing functionality of project management packages and software that integrates the various operational aspects of construction.

Some construction companies have begun to integrate field and corporate applications in order to reduce duplicated data entry, and eventually, to feed expert system data bases.

- To a limited extent, construction companies are integrating CADD systems with estimating. Dimensions and materials specified in a design can be tied directly to estimating systems to avoid re-keying these data.
- Ultimately, data concerning building methods, as well as materials and dimensions, could be moved from a CADD system directly to an expert system for estimating. The expert system would then complete the estimate based on costs of materials and labor.

Integrating field applications with corporate applications adds to the responsibilities of the IS department.

The impact of technology will be significant. When critical path scheduling techniques can be effectively automated and integrated with cost control and corporate applications, improvements in speed and adherence to budgets and schedules will improve markedly. However, users and consultants to the construction industry agree that functional packages for these applications are simply not yet available.



### 3. Agriculture

Three to five percent of farmers will go under each year for the next four to five years, according to *Duns Business Monthly* (9/86). Large farms with the capital and economies of scale to weather lean times will be the survivors, and automated systems will play a major role in their marketing and operations strategies.

### 4. Recreation/Entertainment

The combination of point of sale (POS) and telecommunications technologies enables theaters and movie production and screening companies to monitor consumer preferences and demographics with a speed not possible five years ago. Continuing improvements in POS for data collection and telecommunications for data transfer make sales forecasting even simpler and faster.

IS is also being used as a production tool in the TV and motion picture segments. Scheduling applications helps automate the most labor-intensive aspects of production, which, according to one respondent, provides "drastic cost reductions."

### 5. Automotive Services

Communication technology has provided the tools by which auto rental agencies have been able to offer drastic improvements in customer service. As rental agencies continue to seek new ways to differentiate their services, they often turn to technology for increasingly sophisticated reservation systems and reliable tracking of fleet maintenance records.

The most obvious impact of technology on auto repair services is faster, more accurate diagnoses of car problems. In addition, mechanics will have on-line data bases available for them to look up information on repair procedures or unusual makes and models.

### 6. Non-Profit/Membership Organizations

Non-profits and associations are often small organizations running on limited budgets. For this reason they employ very little expensive, highly advanced technology. Basic office functions, data base, and fund raising applications comprise the bulk of their data processing activities.

Membership organizations vary so greatly in size, function, and wealth that it is impossible to assess the impact of technology on membership organizations in general. Applications that are specific to the membership aspect of these organizations are essentially specialized data base packages which will continue to become easier to use over time, but there are no major changes on the horizon for IS in membership organizations.

the 1990s, the number of people with a diagnosis of schizophrenia has increased in many countries, including the United Kingdom (Murray & Lewis, 1998). The prevalence of schizophrenia is estimated to be 1% of the population (Murray & Lewis, 1998).

There is a growing awareness of the need to improve the lives of people with schizophrenia. The World Health Organization (WHO) has developed a strategy for the care of people with schizophrenia, which emphasizes the need for a comprehensive approach to care, including social, psychological, and medical interventions (WHO, 1993).

One of the key components of this approach is the need to provide a range of services to meet the needs of people with schizophrenia. This includes the need for a range of social, psychological, and medical interventions, as well as the need to provide a range of housing options (WHO, 1993).

One of the key challenges in providing a range of services to people with schizophrenia is the need to ensure that the services are accessible to all people who need them. This is particularly true in the case of people with low income, who may have difficulty accessing the services they need (WHO, 1993).

One of the ways in which this challenge can be addressed is by providing a range of housing options. This includes the need to provide a range of housing options, from shared housing to independent living (WHO, 1993).

One of the key challenges in providing a range of housing options is the need to ensure that the housing is affordable. This is particularly true in the case of people with low income, who may have difficulty affording the housing they need (WHO, 1993).

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## Applications





## III

## Applications

## A

### Hotel/Motel

A property management system often acts as the hub or a large integrated hotel or motel system. It helps coordinate security, accounting, reservations, and personnel applications. Central reservation systems for hotels and motels make it possible for customers to book reservations at any of a chain's locations from any of its other locations. Reservation networks are likely to be available soon so independent hotels and motels will be able to take advantage of the communications technology. Independents would belong to a network and might submit to a code of standards and inspections set by the administering organization.

Other hotel/motel applications can be divided into two groups: Sales and Marketing, and Guest Services.

- Sales and Marketing

Registration and billing systems keep track of guests' tabs and collect point of sale information for forecasting and sales analysis.

Booking of conference facilities should be automated to allow sales people to schedule conferences and close sales while clients are on the phone.

- Guest Services

A variety of electronic locking systems are available to help reduce theft of all kinds and to virtually eliminate employee theft.

In-room entertainment can be managed and billed by computer. Guests will select movies or other video services via an in-room terminal, and the charges will automatically be billed to their account.

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry, no matter how small, should be recorded to ensure the integrity of the financial statements. This includes not only sales and purchases but also expenses, income, and any other financial activity.

The second part of the document provides a detailed breakdown of the accounting process. It starts with the identification of the accounting cycle, which consists of eight steps: identifying the accounting cycle, analyzing the source documents, journalizing the transactions, posting to the ledger, preparing a trial balance, adjusting the accounts, preparing financial statements, and closing the books.

The third part of the document focuses on the preparation of financial statements. It explains how to use the adjusted trial balance to create the income statement, balance sheet, and statement of cash flows. It also discusses the importance of comparing these statements to the previous period to identify trends and anomalies.

The fourth part of the document covers the final steps of the accounting process, including the closing of the books and the preparation of the final financial statements. It highlights the need for accuracy and attention to detail throughout the entire process.



Concierge services will also be available through the television set or in-room terminal. Such services are already available in many hotel lobbies.

In-room microcomputers with network hookups will be a welcome perk to business travelers.

Hotels will provide video conferencing services in order to retain some of the business they would otherwise lose to the technology.

## B

### Construction

Project management is the most important industry-specific application in construction. Project management packages play a vital role in scheduling and cost control on-site, but are usually not well integrated with corporate systems and other on-site applications.

Other industry-specific construction applications include estimating, CADD (computer aided design and drafting) applications, and a variety of specialized engineering applications.

## C

### Agriculture

Applications for agriculture facilitate management of various kinds of farming and help optimize costs and productivity.

- Livestock management systems track geneology, health records and productivity of cows, sheep, chickens, and other livestock.
- Feed optimization packages analyze the nutritional value and cost of feed mixes.
- Fertilizer packages do the same thing to optimize cost-effectiveness of fertilizing.
- Orchard and crop management systems track costs of production for grains and produce.

Some agricultural banks provide crop selection services for their farming customers. They use microcomputers to analyze individual factors and price information from Dow Jones, CompuServe, and the AgriData Network to determine the most profitable mix of crops to plant (*ABA Banking Journal: 11/86*).



**D****Recreation/  
Entertainment**

Large recreation/entertainment systems focus on market research and sales analysis.

- Point of sale (POS) systems provide data collection to feed sales analysis and forecasting applications.
- Telecommunications plays an important role in this segment since data must be transferred from the point of sale to corporate computers to analysis.

Other applications for recreation/entertainment include sports statistics packages, league management packages, production scheduling for movies and TV, and a wide variety of specialized packages for theater and sports facility management, radio and TV station management, and movie, TV, and radio production.

**E****Automotive**

Networked reservation systems work the same way for auto rental agencies as for hotels and motels: A customer can reserve a car at any of an agency's outlets from any of its other outlets. The quality of a rental agency's reservation system is particularly important in drawing customers since customers have closer contact with it than with any of an agency's other systems.

Fleet management systems enable auto rental agencies to track maintenance records on all their cars and to schedule routine maintenance.

Auto mechanics are increasingly using computerized diagnostic tools and on-line data bases to assist in auto repair.

**F****Non-Profit/  
Membership  
Organization**

Applications for this segment include on-line legislative data-bases for associations and non-profit tax exempt organizations, specialized fund-raising packages, and specialized member record-keeping packages.

the 1990s, the number of people in the world who are illiterate has increased from 1.1 billion to 1.2 billion. The number of illiterate people in the world is expected to reach 1.5 billion by the year 2015 (UNESCO, 2003).

Illiteracy is a major barrier to economic and social development. It is a major cause of poverty and social exclusion. It is a major barrier to the realization of the Millennium Development Goals (MDGs). The MDGs are a set of eight goals that were adopted by the United Nations in 2000. The goals are: to eradicate poverty, to achieve universal primary education, to promote gender equality, to reduce child mortality, to improve maternal health, to combat HIV/AIDS, malaria and other diseases, to ensure environmental sustainability, and to develop a global partnership for development.

One of the most important goals is to achieve universal primary education. This goal is to be achieved by 2015. The goal is to ensure that all children, boys and girls alike, have access to and complete primary school. This goal is to be achieved by increasing the number of children in primary school, by improving the quality of primary education, and by reducing the number of children who are out of school.

One of the most important barriers to the achievement of this goal is illiteracy. Illiteracy is a major barrier to the achievement of universal primary education. It is a major barrier to the realization of the MDGs. The MDGs are a set of eight goals that were adopted by the United Nations in 2000. The goals are: to eradicate poverty, to achieve universal primary education, to promote gender equality, to reduce child mortality, to improve maternal health, to combat HIV/AIDS, malaria and other diseases, to ensure environmental sustainability, and to develop a global partnership for development.

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## Budget Analysis



the 1990s, the number of people in the world who are under 15 years of age has increased from 1.1 billion to 1.3 billion. The number of people aged 15 years and over has increased from 3.5 billion to 4.5 billion. The number of people aged 65 years and over has increased from 0.2 billion to 0.5 billion.

There are a number of reasons for the increase in the number of people in the world. One of the main reasons is the increase in the number of people who are surviving to old age. This is due to a number of factors, including improvements in medical care, better nutrition, and a decline in the number of people who are dying from infectious diseases.

Another reason for the increase in the number of people in the world is the increase in the number of people who are having children. This is due to a number of factors, including a decline in the number of people who are dying from infectious diseases, a decline in the number of people who are having abortions, and a decline in the number of people who are using contraception.

The increase in the number of people in the world has a number of implications. One of the main implications is the increase in the number of people who are dependent on others. This is due to the increase in the number of people who are aged 65 years and over, and the increase in the number of people who are disabled.

Another implication of the increase in the number of people in the world is the increase in the number of people who are living in poverty. This is due to the increase in the number of people who are living in developing countries, and the increase in the number of people who are living in urban areas.

The increase in the number of people in the world has a number of other implications. One of the main implications is the increase in the number of people who are living in crowded conditions. This is due to the increase in the number of people who are living in urban areas, and the increase in the number of people who are living in slums.

Another implication of the increase in the number of people in the world is the increase in the number of people who are living in poor health. This is due to the increase in the number of people who are living in developing countries, and the increase in the number of people who are living in urban areas.

The increase in the number of people in the world has a number of other implications. One of the main implications is the increase in the number of people who are living in poor housing. This is due to the increase in the number of people who are living in urban areas, and the increase in the number of people who are living in slums.

## IV

## Budget Analysis

The results of the annual budget analysis are contained in Exhibit IV-1. Personnel is by far the largest category, accounting for 44 percent of IS budgets. Hardware follows at around 20 percent.

- Mainframe systems account for the largest share of the hardware budget at 29 percent.
- Microcomputers are the fastest growing item in the hardware budget.

"External Software" and "Hardware Maintenance" are the fastest growing items on the entire budget, both growing at 22 percent.

"Software Maintenance" is the second fastest growing item with a growth rate of 19 percent.

Companies in the "Other" Industry sector developed 70 percent of all their software in house. They purchased the rest as packaged software, or had it developed outside (see Exhibit IV-2). And; 60 percent of the programming staffs of "Other" Industry companies provide maintenance and enhancements to existing systems, while the other 40 percent develop new software (see Exhibit IV-3).

the 1990s, the number of people in the UK who are aged 65 and over has increased from 10.5 million to 13.5 million (19.5% of the population).

There is a growing awareness of the need to address the health and social care needs of the ageing population. The Department of Health (2001) has set out a strategy for the 21st century, which includes a commitment to 'improve the health and well-being of older people, and to help them to live longer, healthier lives'. The strategy also includes a commitment to 'ensure that older people have the opportunity to live in their own homes, and to participate in the community'. The strategy also includes a commitment to 'ensure that older people have access to the services and support they need to live well in old age'.

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## EXHIBIT IV-1

**1986 BUDGET DISTRIBUTION AND 1986/1987 CHANGES  
IN THE "OTHER" INDUSTRY SECTOR**

BUDGET CATEGORY	1986 I.S. BUDGET (PERCENT)	1986/1987 EXPECTED BUDGET GROWTH (PERCENT)
Personnel	44.0	7
Mainframe Processors	13.0	7
Minicomputers	6.0	8
Microcomputers	6.0	1
Mass Storage Devices	4.0	10
Other Hardware	11.0	13
Total Hardware	40.0	11
Data Communications	4.0	10
External Software	4.6	22
Professional Services	1.4	8
Software Maintenance	1.5	19
Hardware Maintenance	1.5	22
Other	3.0	5
Total	100.0	10

the 1990s, the number of people aged 65 and over in the United States is projected to increase from 20 million in 1990 to 35 million in 2010, and the number of people aged 75 and over from 10 million to 18 million (U.S. Census Bureau 1996).

As the number of people aged 65 and over increases, the number of people aged 75 and over is expected to increase at a faster rate. The number of people aged 75 and over is projected to increase from 10 million in 1990 to 18 million in 2010, an increase of 80% (U.S. Census Bureau 1996). The number of people aged 85 and over is projected to increase from 2 million in 1990 to 5 million in 2010, an increase of 150% (U.S. Census Bureau 1996).

As the number of people aged 75 and over increases, the number of people aged 85 and over is expected to increase at a faster rate. The number of people aged 85 and over is projected to increase from 2 million in 1990 to 5 million in 2010, an increase of 150% (U.S. Census Bureau 1996). The number of people aged 95 and over is projected to increase from 0.5 million in 1990 to 1.5 million in 2010, an increase of 200% (U.S. Census Bureau 1996).

As the number of people aged 95 and over increases, the number of people aged 100 and over is expected to increase at a faster rate. The number of people aged 100 and over is projected to increase from 0.1 million in 1990 to 0.3 million in 2010, an increase of 200% (U.S. Census Bureau 1996). The number of people aged 105 and over is projected to increase from 0.05 million in 1990 to 0.15 million in 2010, an increase of 200% (U.S. Census Bureau 1996).

As the number of people aged 105 and over increases, the number of people aged 110 and over is expected to increase at a faster rate. The number of people aged 110 and over is projected to increase from 0.02 million in 1990 to 0.06 million in 2010, an increase of 200% (U.S. Census Bureau 1996). The number of people aged 115 and over is projected to increase from 0.01 million in 1990 to 0.03 million in 2010, an increase of 200% (U.S. Census Bureau 1996).

As the number of people aged 115 and over increases, the number of people aged 120 and over is expected to increase at a faster rate. The number of people aged 120 and over is projected to increase from 0.005 million in 1990 to 0.015 million in 2010, an increase of 200% (U.S. Census Bureau 1996). The number of people aged 125 and over is projected to increase from 0.002 million in 1990 to 0.006 million in 2010, an increase of 200% (U.S. Census Bureau 1996).

As the number of people aged 125 and over increases, the number of people aged 130 and over is expected to increase at a faster rate. The number of people aged 130 and over is projected to increase from 0.001 million in 1990 to 0.003 million in 2010, an increase of 200% (U.S. Census Bureau 1996). The number of people aged 135 and over is projected to increase from 0.0005 million in 1990 to 0.0015 million in 2010, an increase of 200% (U.S. Census Bureau 1996).

As the number of people aged 135 and over increases, the number of people aged 140 and over is expected to increase at a faster rate. The number of people aged 140 and over is projected to increase from 0.0002 million in 1990 to 0.0006 million in 2010, an increase of 200% (U.S. Census Bureau 1996). The number of people aged 145 and over is projected to increase from 0.0001 million in 1990 to 0.0003 million in 2010, an increase of 200% (U.S. Census Bureau 1996).

As the number of people aged 145 and over increases, the number of people aged 150 and over is expected to increase at a faster rate. The number of people aged 150 and over is projected to increase from 0.00005 million in 1990 to 0.00015 million in 2010, an increase of 200% (U.S. Census Bureau 1996).

EXHIBIT IV-2

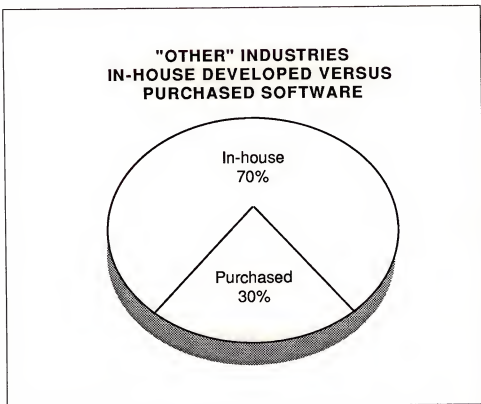
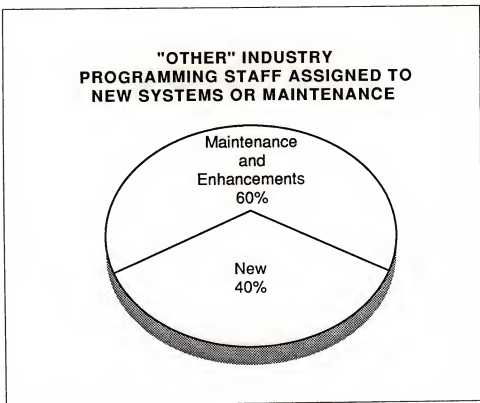


EXHIBIT IV-3



the 1990s, the number of people in the world who are under 15 years of age has increased from 1.1 billion to 1.3 billion. The number of people aged 15 years and over has increased from 3.5 billion to 4.5 billion. The total population of the world has increased from 4.6 billion to 5.8 billion.

There are a number of reasons for the increase in the number of people in the world. One of the main reasons is the increase in life expectancy. In 1990, the average life expectancy at birth was 47 years. In 2000, it was 52 years. This increase in life expectancy is due to a number of factors, including improvements in medical care, better nutrition, and a decline in infant mortality.

Another reason for the increase in the number of people in the world is the increase in the number of people who are aged 15 years and over. This increase is due to a number of factors, including improvements in medical care, better nutrition, and a decline in infant mortality. The number of people aged 15 years and over has increased from 3.5 billion in 1990 to 4.5 billion in 2000.

The increase in the number of people in the world has a number of implications. One of the main implications is the increase in the number of people who are dependent on others. In 1990, there were 1.1 billion people under 15 years of age. In 2000, there were 1.3 billion people under 15 years of age. This increase in the number of people who are dependent on others has a number of implications, including the need for more resources and services.

Another implication of the increase in the number of people in the world is the increase in the number of people who are aged 15 years and over. This increase has a number of implications, including the need for more resources and services. The number of people aged 15 years and over has increased from 3.5 billion in 1990 to 4.5 billion in 2000.

The increase in the number of people in the world has a number of implications for the environment. One of the main implications is the increase in the number of people who are dependent on others. This increase has a number of implications, including the need for more resources and services. The number of people aged 15 years and over has increased from 3.5 billion in 1990 to 4.5 billion in 2000.

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INPUT provides planning information, analysis, and recommendations to managers and executives in the information processing industries. Through market research, technology forecasting, and competitive analysis, INPUT supports client management in making informed decisions. Continuing services are provided to users and vendors of computers, and communications and office products and services.

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Formed in 1974, INPUT has become a leading international planning services firm. Clients include over 100 of the world's largest and most technically advanced companies.

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