

1989

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Fulfilling The Mission

STRATEGIC PLAN

1988



American Society of Heating, Refrigerating
and Air-Conditioning Engineers, Inc.

1989

1991

1993

1990

1992

Participants in the Development and Approval of the ASHRAE Strategic Plan

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Introduction

The American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc. (ASHRAE) is a technical society with a worldwide membership of more than 50,000 persons dedicated to the advancement of technology for public benefit.

Created by the merger in 1959 of the American Society of Heating and Ventilating Engineers, founded in 1894, and the American Society of Refrigerating Engineers, founded in 1904, ASHRAE operates on a not-for-profit basis. To encourage the unrestricted improvement and utilization of technology without regard to product promotion, ASHRAE has neither corporate nor organizational members.

ASHRAE's activities in recent years has become significantly broader. Growth in membership, total fiscal expenditures, research expenditures, and scope reflect

broader activities.

To assure fulfillment of the Society's mission in future years, the ASHRAE Board of Directors adopted a strategic plan in 1985. In developing this plan, the Society reviewed the past, looked objectively at the present, and examined how resources could be most effectively expended in the future.

During the three years that the 25 objectives of the strategic plan have been in place, some objectives have been reached, others deleted after careful evaluation, and some not yet achieved. (Refer to section on Disposition of Original Strategic Plan Objectives).

To reflect this progress and to incorporate additional objectives, a new strategic plan has been developed. The 1988 Strategic Plan is defined by nine broad goals. The goals will provide direction to

the Society as future policies and activities are developed and implemented. Specific objectives have been developed to give direction for accomplishing each goal. The objectives are attainable, assignable, and measurable, to the extent possible, to help assure their implementation.

Background

From the time ASHRAE was formed by the consolidation in 1959, the Society has looked ahead to provide for orderly growth and meaningful direction. In 1983, after years of continued membership growth, the Board of Directors, acting on a recommendation of the Long Range Planning Committee, authorized the development of a Society-wide strategic plan. That plan, consisting of 25 objectives, was approved by the Board of Directors and distributed to the Society's membership for implementation in 1985.

During the strategic plan's three years of existence, procedures were developed for implementation, review, and modification of the plan. Those procedures permitted the plan to become a living document wherein specific objectives could regularly be modified, reassigned, added, or dropped.

In June of 1987, the Board of Directors decided to build on the experience gained from working with the plan and directed the Long Range Planning Committee to begin development of a new strategic plan.

During the development of the new plan, the existing strategic plan remained

The ASHRAE Strategic Plan will be monitored and reviewed continually. Objectives that have been completed will be noted and deleted from the plan; action assignments and impact assessments for current objectives will be updated; and the addition of new objectives will be considered.

in place, undergoing normal review and modification while serving as the Society's principal source of direction.

This plan represents information obtained from a broad segment of the Society's membership. This included technical and general committee chairmen, the Board of Directors and other key members. In Addition, input was provided by . . .

- chapters through Directors and Regional Chairmen,
- general membership through *ASHRAE Insights*,
- International Associate Societies . . .

Development of the plan was accelerated by the formation of the Strategic Plan Presidential Ad Hoc Committee under the direction of the Long Range Planning Committee.

After careful review and discussion among the Strategic Plan Presidential Ad Hoc Committee, the Long Range Planning Committee, and the Executive Committee, the strategic plan goals and objectives were approved by the Board of Directors in May 1988.

Organization and Accomplishment of Strategic Plan

ASHRAE's Strategic Plan is based on nine goals. Goals are desired end results of the plan. These goals, listed in the "Strategic Plan Goals" section of this plan provide direction for the future activities and policies of the Society.

Objectives have been adopted by ASHRAE through its Board of Directors for each of the goals to provide a plan for their accomplishment. These objectives, which support the goals, are listed in the "Strategic Plan Goals and Objectives"

section. Objectives are specific and call for measurable results and target dates where possible.

The plan assigns responsibility for accomplishing the goals and objectives to specific councils and committees. These councils and committees are challenged

to define and aggressively undertake tasks to complete these objectives. In the process of meeting strategic plan goals, councils and committees may choose to propose improved or additional objective statements for consideration by the Board of Directors.

Disposition of Original Strategic Plan Objectives

The Society's original strategic plan included 25 objectives:

1. Research will continue as the core of ASHRAE activities, and expenditures in this area will increase from 18 percent of all Society revenue (\$1.25 million) in 1984-85 to 24 percent of all Society revenue (\$2.0 million) by 1989-90.
2. The total amount of investments made in ASHRAE research by contributors who invest \$1,000 or more will increase from a total of \$190,000 in 1984-85 to \$1 million in 1989-90.
3. Total annual research expenditures will increase from \$300,000 in 1983-84 to \$850,000 in 1989-90 in areas relating to occupant health and safety, including indoor air quality; interface of building systems with thermal envelopes; and energy conservation.
4. To keep pace with changing technology and to ensure responsiveness to member interests and needs, the committee structure for technical activities will be formally reviewed on a five-year cycle beginning in 1985-86.
5. A survey to identify needs for specific standards and guidelines will be initiated in 1985-86, and based upon the survey a long-range plan will be formulated in 1986-87, with a repeat of the survey and modifications made to the plan as needed every five years.
6. Initiatives to promulgate voluntary consensus standards and guidelines will be continued to retain private sector responsibility for development of industry standards on HVAC&R and their allied arts and sciences and related human factors.
7. Domestic and international standards-writing organizations with which there may be interest in joint development of standards, guidelines, or similar technical documents will be identified, and participation by and with such organizations in the development of documents will be actively solicited.
8. A program will be maintained for the effective dissemination and application of building energy conservation technology to the public and private sectors.
9. Participation with government agencies on special projects related to the research program and the acceleration of consensus standards and guidelines will be increased.
10. A plan will be developed to utilize regional and chapter officers in the identification of state, provincial, and municipal agencies which are potential recipients of ASHRAE technical and consultative services.
11. A formal mechanism will be developed for responding to public inquiries, including monitoring selected issues; identifying, developing, and maintaining timely position papers and policy statements with particular attention devoted to energy, health, and safety issues; and establishing a network of recognized experts to respond to inquiries of specific technical nature.
12. Overseas membership in the Society and the participation of overseas members in Society activities will be increased.
13. An appropriate strategy and action plan to participate with national and multi-national technical societies in the HVAC&R field for mutual benefit will be developed.
14. Membership growth will be achieved by broadening the membership base to include related disciplines.
15. Chapter and regional support of student branch activity will be increased and use of student branches as a source of membership will be continually examined.
16. Time demands imposed on members of the Executive Committee in service to the Society will be reduced.
17. All educational and professional development activities will be consolidated into one unit.

18. A library program, including appropriate staff and using computer-based methods, will be developed to provide a repository for or reference to (1) publications referenced in the handbooks, (2) all past, present, and future Society literature, and (3) selected specialized publications related to ASHRAE's scope.
19. Programs will be developed to assist developing countries through technology transfer.
20. The publishing program will be self-supporting.
21. Electronic access to Society technical material will be provided.
22. Methods of transmitting news of Society activity to the membership will be improved.
23. Use of electronic mail to transmit information to and from Society officers, council members, and selected standing general committee members will be instituted.
24. A variety of manuals and special publications to supplement the technical material in the handbooks will be developed.

25. Technical information presented at ASHRAE meetings will be disseminated more broadly by offering it in multiple formats and by packaging it in technical interest categories.

Some of the original strategic plan objectives (SPOs) have been voted accomplished by the Board of Directors, while others are now considered operating procedure for the Society. The remaining objectives have been designated into one of two categories; those superseded by a new objective in this plan or those which have been incorporated in part or in whole in a new objective. The table below reflects the disposition of the original strategic plan objectives. For those superseded by a new objective or incorporated into the 1988 Strategic Plan, one of the nine goals will be listed in which that objective appears in the "Goals and Objectives" section.

Original SPOs	Achieved	Superseded by New Goal	Incorporated into New Goal
1		8. Research	
2		8. Research	
3			8. Research
4	Operating Procedure		
5	Operating Procedure		
6	Operating Procedure		
7			2. External
8			9. Tech Transfer
9	Operating Procedure		
10			1. Awareness
11			2. External
12			3. International
13			3. International
14		5. Membership	
15			5. Membership
16	Accomplished		
17	Accomplished		
18			9. Tech Transfer
19			9. Tech Transfer
20		7. Publications	
21			9. Tech Transfer
22	Accomplished		
23	Operating Procedure		
24	Accomplished		
25	Operating Procedure		

Assumptions for Planning Period

Certain assumptions were made either intentionally or intuitively in establishing the strategic objectives. These assumptions are provided as background information.

Assumptions Based on External Factors:

1. Energy costs will rise as fossil-based energy sources are depleted, political influences affect availability, and the use of technology is further advanced within developing countries.
2. Demand for preprocessed food will increase, resulting in increased demand for new technology in food preservation.
3. Along with energy and food, other global issues will impact the direction of the Society. Some examples are atmospheric effects of chlorofluorocarbons, water quality and quantity, indoor and outdoor air quality, and international trade and standards.
4. Economic growth in developed countries will lead to continued demand for improved control of indoor environments. As a result, these countries will contribute even more to advances in the development of new equipment

- and equipment application.
5. New communication technology will facilitate the transfer of information and wider application of technology.
6. The rapid rate of technological development will increase demand for formal educational opportunities.

Assumptions Based on Internal Factors:

1. ASHRAE will continue to rely upon volunteer support by members to develop and execute most of its programs and to establish policies in support of the Society's mission.
2. ASHRAE will remain committed to the development of new technology through the support and sponsorship of research.
3. ASHRAE will continue to disseminate technical information to its membership and other interested persons.
4. ASHRAE will continue to support the development of voluntary consensus standards within the private sector.
5. Many activities were not incorporated because they were procedural or not strategic in nature. It is assumed that ASHRAE's councils, committees, regions, and chapters will initiate objectives beyond those in this report.

Strategic Plan Involvement by Members, Chapters, and Regions

The strategic plan represents the Society's effort to identify and formulate the concerns, objectives, and thinking of the entire membership. It is important that chapters and regions use the Society's strategic plan. Members are encouraged to participate in chapter and regional activities. The plan deserves careful review by chapter and regional officers and committees. Objectives may help address a particular local or regional problem and should be studied to identify those that:

- are a logical extension of present programs,
- are of great local or regional interest,

- appeal to particular individuals or sub-groups,
- will enhance or stimulate specific programs, meetings, and activities,
- provide the opportunity to be a pilot project or pioneering effort of interest.

In general, the Society's strategic plan is intended to encourage and stimulate chapter and/or regional adoption, energy, interest, and creativity. Successful efforts need to be publicized and shared with others in the Society.

When chapters need more information, staff support, or other resources to

“adopt” or pursue a goal (or part of one), contact:

- chapter officers,

- Director and Regional Chairman or vice chairpersons,
- Society committee chairpersons.

Strategic Plan Involvement by Society Councils and Committees

A number of Society standing general committees or councils have been designated as the group to be responsible for implementing strategic plan objectives. Councils and committees are encouraged to conduct their own strategic planning activities and to publicize developments and accomplishments in *ASHRAE Insights*. With slight modification,

the checklist for strategic plan involvement by members, chapters, and regions can be used as a general guide for standing committees and technical and standards project committees.

Councils and committees are expected to develop formal action plans by the 1989 ASHRAE Winter Meeting for accomplishing assigned objectives.

Use of Estimated Resource Impacts

A fundamental concept recognized in development of the ASHRAE strategic plan is the importance of both financial resources and human resources or volunteer effort in planning and implementing objectives. This allows for the relative magnitude of effort of each objective to be measured.

As a result, a graph depicting estimated resource impacts for five years is shown for each goal. The bars in each graph illustrate specific objectives. Years shown in each graph represent ASHRAE fiscal years (July 1 to June 30), with 1989 representing the period July 1, 1988 to June 30, 1989.

Approval of the plan by the Board of Directors in no way represents approval of any expenditures included in fiscal impact estimates. The Society's standard operating procedures for expenditure approval are to be followed in the execution of all objectives.

Fiscal resource impacts are based on these assumptions:

- Expenses include direct costs incurred above existing activities which result because of an objective, and costs of professional staff support with secretarial assistance, including salary, taxes and benefits, and overhead. Estimated fiscal impacts are in thousands of dollars.
- One-person cost of transportation reimbursement for volunteer travel in North America is \$400.
- Annual cost to provide membership service to one overseas member is \$25.
- Annual cost to provide membership service to one member in North America is \$15.
- Annual membership dues for one full member is \$95.
- Most strategic plan objectives require a minimum of 48 volunteer days and 12 staff days per year for planning, monitoring, reporting, and implementing.

ASHRAE's Mission

ASHRAE's Bylaws state that the Society's objective is to advance the arts and sciences of heating, refrigeration, air conditioning, ventilation, their allied arts and sciences and related human factors for the benefit of the general public. In meeting its mission, ASHRAE considers the effect of its technology on the environment and natural resources in recognition of the need to protect the welfare of posterity.

ASHRAE achieves its objective in a number of ways, including the following:

- Encourages and conducts scientific research in the study of principles and methods;
- Promotes the unrestricted dissemination of knowledge and information by publishing and fostering the publication of scientific and educational data;
- Engages in educational activities and encourages the adoption and maintenance of high standards of instruction and professional training;
- Cooperates with governmental agencies, educational institutions, International Associates, and other groups having the same or similar aims and objectives;
- Establishes standards and procedures with the proviso that all such activities are conducted solely for the advancement of engineering science;
- Organizes regions, chapters, and student branches congruent with members' interests and geographic locations.

Strategic Plan Goals

These goals represent the current thrusts of the Society. However, they must be understood and used in the context provided by the objectives that support and implement them. The objectives are listed in the next section.

All goals are important to the Society's strategic plan and are listed in alphabetical order.

1. ASHRAE Awareness

ASHRAE will broaden awareness of its technology and expertise in the business community, industry, legislative bodies, and the general public.

2. External Factors

ASHRAE will develop new procedures and policies to improve its ability to anticipate and respond expediently to external factors.

3. International

ASHRAE will encourage greater international exchange of research and technology to provide improved products and services for the benefit of the public worldwide.

4. Meetings

ASHRAE will maximize the quality, attendance, availability, and cost effectiveness of its meetings and conferences.

5. Membership

ASHRAE will increase Society, chapter, and student membership and improve member services.

6. Organization

ASHRAE will examine ways in which its organizational structure, including the regions and chapters, can be modified to better accomplish its mission.

7. Publications

ASHRAE will improve the quality, use, and revenue generation of its publications.

8. Research

ASHRAE will expand its research activities in both scope and funding.

9. Technology Transfer

ASHRAE will increase the scope and means of its technology transfer, including continuing education.

Strategic Plan Goals and Objectives

1. ASHRAE Awareness

Goal:

ASHRAE will broaden awareness of its technology and expertise in the business community, industry, legislative bodies, and the general public.

ASHRAE is widely known among those directly employed in the HVAC&R industry. These include consulting engineers, contractors, design engineers for manufacturers, manufacturers representatives, building owners and operators, and academia.

Having established a high degree of awareness within a limited segment of society, ASHRAE must now broaden its influence by demonstrating the Society's benefit to the industries that depend upon environmental control technology and to the general public. For example, ASHRAE can serve as a technical resource to impact regulations and legislation and can help companies to produce improved products and services.

Objectives:

1.1 ASHRAE will develop by 1989 and implement by 1991 a plan to strengthen its position as a recognized international technical authority in the areas of HVAC&R technology, indoor air

quality, energy conservation, and other related fields of expertise among the public and private sectors impacted most by ASHRAE.

Responsibility: Education Council

1.2 By 1990, a guide will be prepared and training provided to help chapters and regional representatives communicate ASHRAE's technical expertise and services to business leaders, facilities owners and operators, and government officials.

Responsibility: Education Council

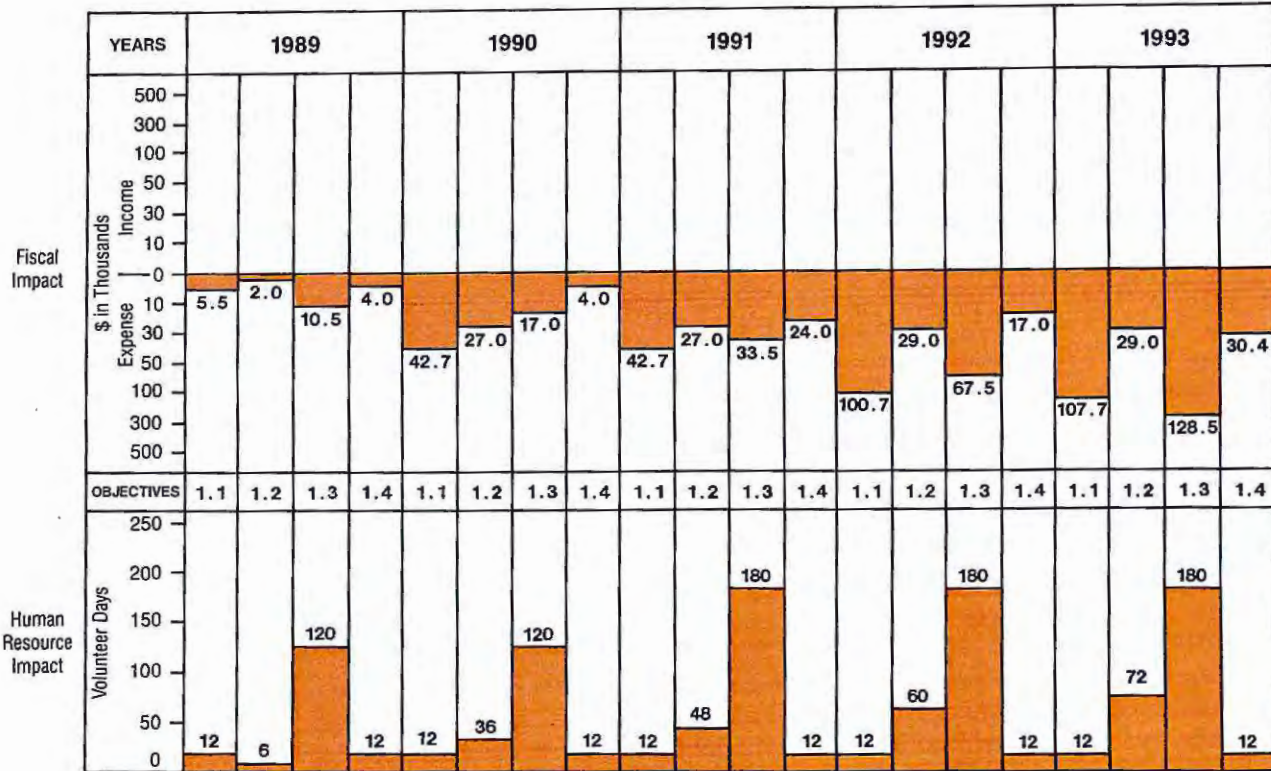
1.3 A plan will be developed to celebrate ASHRAE's centennial year which will unify the HVAC&R industry and generate awareness of the industry's benefits to humanity among the public and selected segments of commerce and industry.

Responsibility: Executive Committee

1.4 ASHRAE will examine the relationship between its name and public recognition with the Society, international acceptance as an international organization, and the impact a name change would have upon the Society's efforts to increase recognition. Any possible name change will be in place by 1994, the Society centennial year.

Responsibility: Long Range Planning Committee

GOAL 1



2. External Factors

Goal:

ASHRAE will develop new procedures and policies to improve its ability to anticipate and respond expediently to external factors.

ASHRAE is faced with the challenge to anticipate and respond to legislative, regulatory, or other influences which have the potential to adversely or favorably affect the Society's operations.

Objectives:

- 2.1 A strategy will be developed by 1990 which will best utilize the resources of the Society in accomplishing its non-profit technical and educational mandate.

Responsibility: Executive Committee

The increasing complexity of tax codes applicable to non-profit groups will require continued analysis and monitoring.

- 2.2 ASHRAE contributes significantly to society as well as the industries with which it is associated in the development and distribution of standards. ASHRAE will assess its role in assuring that the use of its standards and guidelines in codes is efficient, accurate, and consistent with the Society's policy and mission, and implement a program to fulfill its role by 1990.

Responsibility: Standards Committee

The Certificate of Consolidation states that one of the purposes of the Society is "To establish, approve, adopt, and promulgate codes, standards, and procedures . . ." There is some evidence that the Society issued one code in the past. Yet the Society's position with respect to its standards and their incorporation into codes remains in question.

- 2.3 The extent of the potential legal liability in providing services to ASHRAE members and to the public, such as the issuance of standards, guidelines, manuals of accepted practice, translations, certification, etc., will be determined, and an appropriate response and plan of action will be developed by 1992.

Responsibility: Executive Committee

The dramatic increase in litigation involving organizations such as ASHRAE

requires that the Society develop plans and procedures that will limit, to the greatest extent practical, its potential liability in any type of legal proceedings. Exposure from such seemingly harmless things as translation of its handbooks needs to be explored and appropriate policies established.

- 2.4 By 1989, the Society will improve and formalize its procedures for providing prompt and reliable responses to public inquiries. These procedures will include (a) mechanisms for identifying ASHRAE-related governmental issues, and preparing written position papers and statements which can be reviewed and updated annually, (b) mechanisms for expedient yet carefully reviewed responses to governmental inquiries that have not been anticipated in ASHRAE position papers and statements, and (c) mechanisms for classifying and distributing for response to a designated staff member or volunteer all inquiries of a technical nature.

Responsibility: Government Affairs Committee

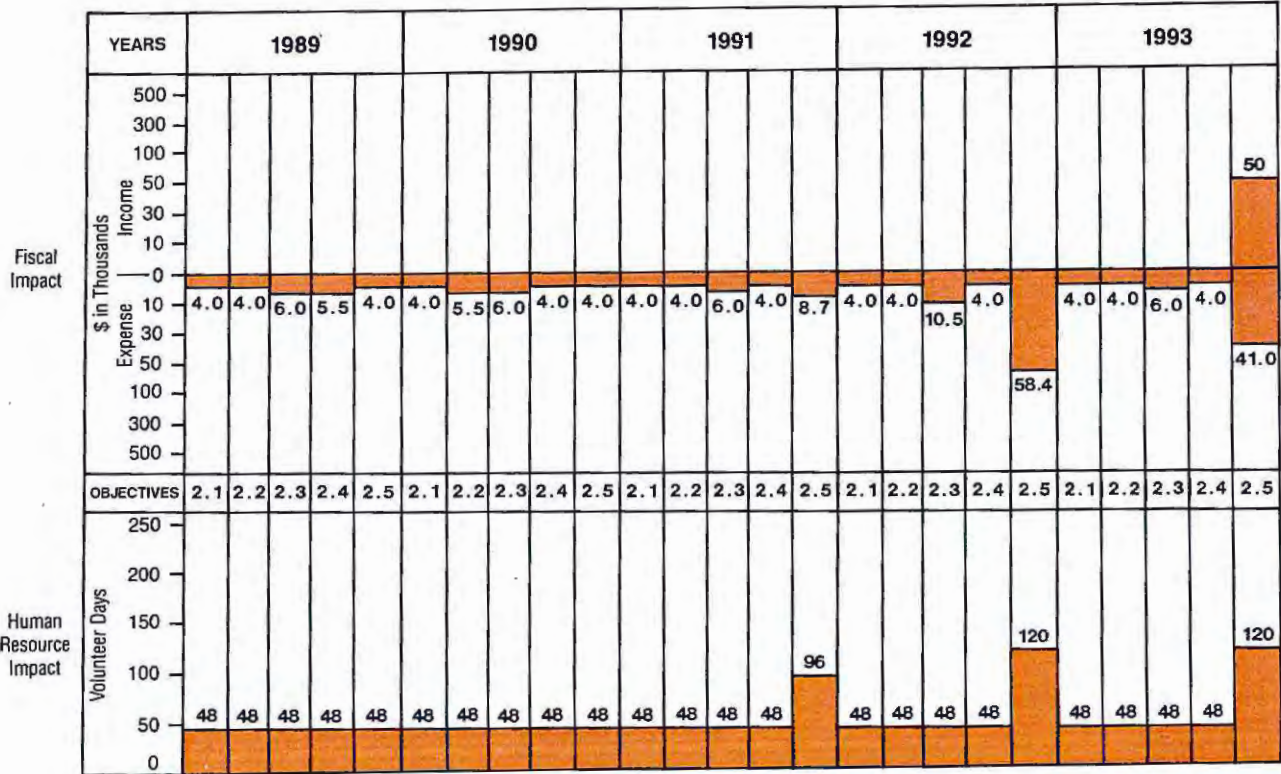
It is important that the view of an informed technical Society be put on record on issues that have a significant impact on its membership and the general public, based on the research, technical knowledge, and experience embodied in the organization.

- 2.5 The Society's role in "certification" of technical competency will be defined and an appropriate action plan will be developed by 1991. The policy, as defined, will address current and potential avenues of certification; current and potential organizations engaged in certification, such as trade organizations and other technical or professional societies; and potential advantages and disadvantages of certification to the Society, its members, and the public.

Responsibility: Education Council

ASHRAE must develop a policy on whether or not it should be endorsing and/or participating in the certification activities now occurring or likely to occur in the future to help control the quality, effectiveness, and utilization of the certification impacting its membership.

GOAL 2



3. International

Goal:

ASHRAE will encourage greater international exchange of research and technology to provide improved products and services for the benefit of the public worldwide.

The global nature of the technology addressed by ASHRAE resulted in the Society becoming an international organization.

Objectives:

- 3.1 After identifying by 1990 all international organizations active in ASHRAE's fields of interest, the current list of 29 International Associates will be increased.

Responsibility: International Committee

- 3.2 Efforts will be increased to expand the international membership of the Society with a goal of doubling the 1988 new member applications from outside the United States and Canada by 1993. Representation of members from around the world on the Society's councils and standing general committees also will be increased.

Responsibility: Membership Promotion Committee

Of its current members in 1988, 10 percent reside in approximately 120 countries outside the United States and Canada.

- 3.3 The most widely used parts of ASHRAE's publications will be translated into at least one language other than English by 1993.

Responsibility: Publishing Council

- 3.4 Efforts will be expanded to translate and incorporate material from outside the United States and Canada into the Society's publications by 1993.

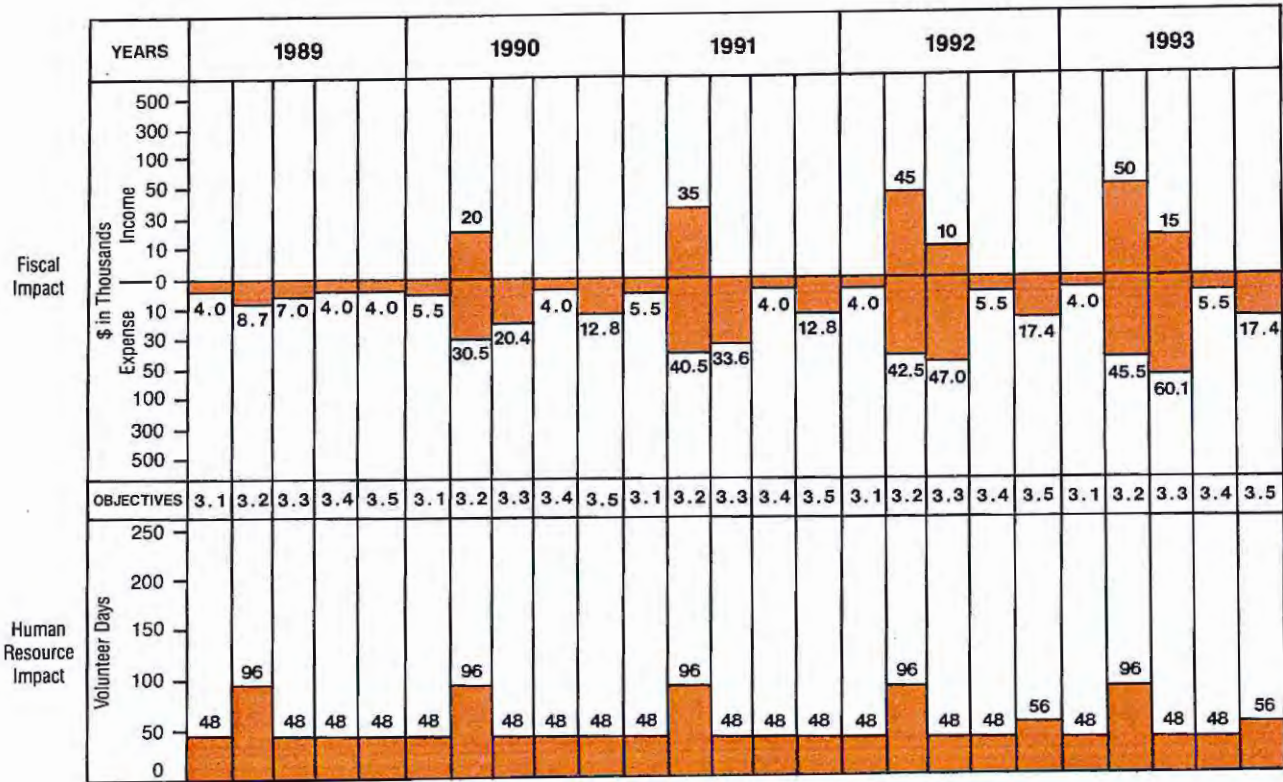
Responsibility: Publishing Council

- 3.5 By 1993, ASHRAE will increase its contribution in international refrigeration activities. In addition to continuing to provide secretarial services for the United States National Committee of the International Institute of Refrigeration, ASHRAE will explore alternatives for funding the United States National Committee.

Responsibility: Refrigeration Committee

There is a need to enhance internationally, the participation in Society level activities of ASHRAE's refrigeration interest and expertise, including areas such as food preservation, commercial refrigeration, transportation, and storage.

GOAL 3



4. Meetings

Goal:

ASHRAE will maximize the quality, attendance, availability, and cost effectiveness of its meetings and conferences.

Chapter, Regional, and Society level meetings and conferences are a principal means of technology transfer. Only a relatively small percentage of members currently attend ASHRAE meetings and conferences at the Society level.

Objectives:

4.1 The feasibility of holding an annual meeting in conjunction with a product show and presenting six topical meetings in different geographical locations throughout the year will be investigated, and a recommendation submitted to the Board of Directors by 1991.

Responsibility: Meetings and Expositions Committee

ASHRAE's present practice is to present a broad range of technical subjects at its semiannual meetings (Winter and Annual), with more specific subjects covered at its occasional co-sponsored special conferences (such as indoor air quality conferences). This format reaches about 4,000 industry personnel in any one year. Other technical societies have turned to a larger number (10 to 15) of smaller, more topic-oriented conferences as a means of reaching a broader segment of its membership and generating additional revenue.

4.2 The feasibility of sponsoring or co-sponsoring an increasing number of specialty conferences as a means of generating revenue will be evaluated with a plan based on the evaluation implemented by 1993.

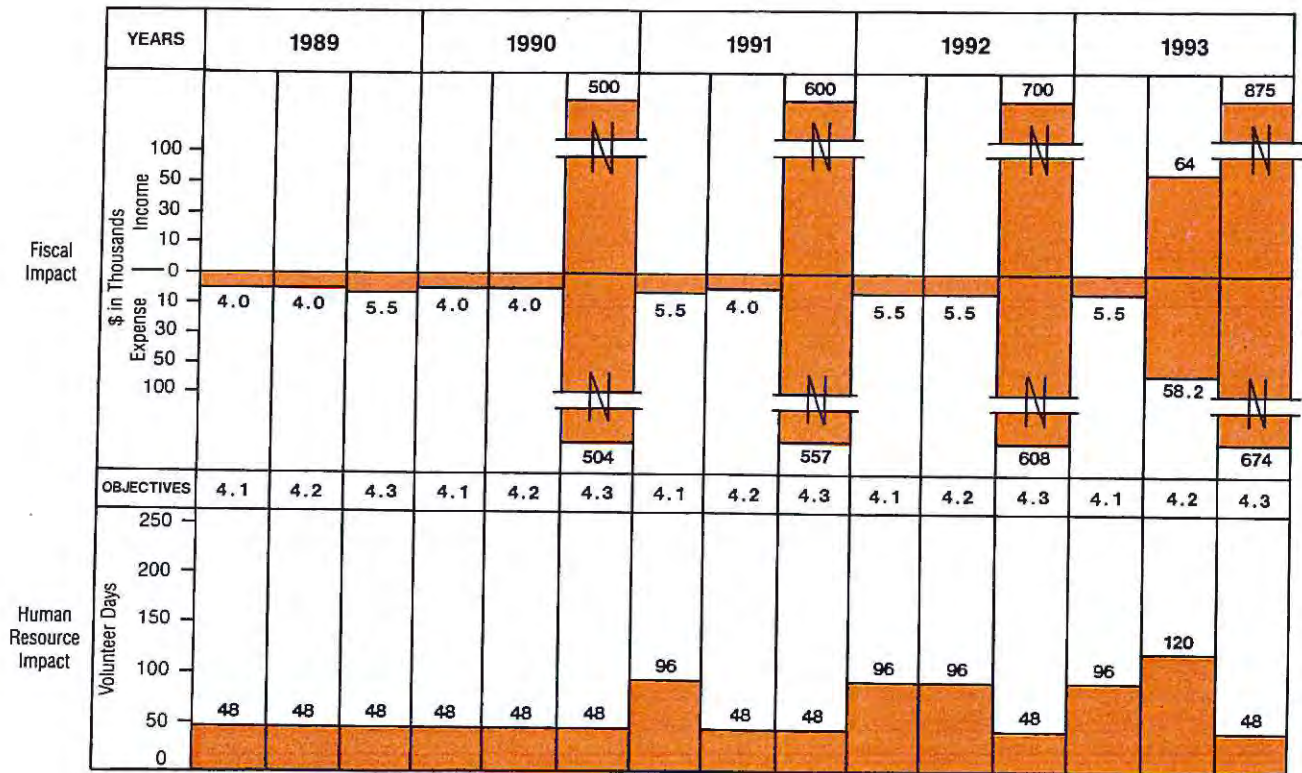
Responsibility: Education Council

4.3 Participation by the membership in Society level meetings will increase to 15 percent of the total membership by 1993.

Responsibility: Education Council

Presently eight percent of the Society's membership participate in at least one ASHRAE meeting per year.

GOAL 4



5. Membership

Goal:

ASHRAE will increase Society, chapter, and student membership and improve member services.

Approximately 60 percent of ASHRAE members are chapter members. While the Society has experienced steady growth from its traditional sources of membership, the potential to establish even greater growth still exists from less developed areas, such as younger and minority members and members outside the United States and Canada.

Objectives:

- 5.1 ASHRAE will determine by 1989 why members resign from the Society before they retire.

Responsibility: Membership Promotion Committee

It's noted that strong chapters retain members most effectively. This member retention must be examined to see how it may be applied at the Society level.

- 5.2 Greater participation by members outside the United States and Canada will be achieved in Society programs. By 1992 and each year thereafter, applications for at least three grants-in-aid will be received from students outside the United States and Canada. In addition, at least eight ASHRAE

Energy Awards submissions will be made, and other programs, such as student paper competitions, will realize similar increases from outside the United States and Canada.

Responsibility: Regions Council

- 5.3 A program will be implemented by 1990 to provide chapters with materials and programs that will nurture and develop student branches.

Responsibility: Education and Chapter Programs Committee

Example of programs to be analyzed include increasing sponsorship of research at universities, using broadcast media to communicate ASHRAE's technical developments, and developing a program for a student employment referral service.

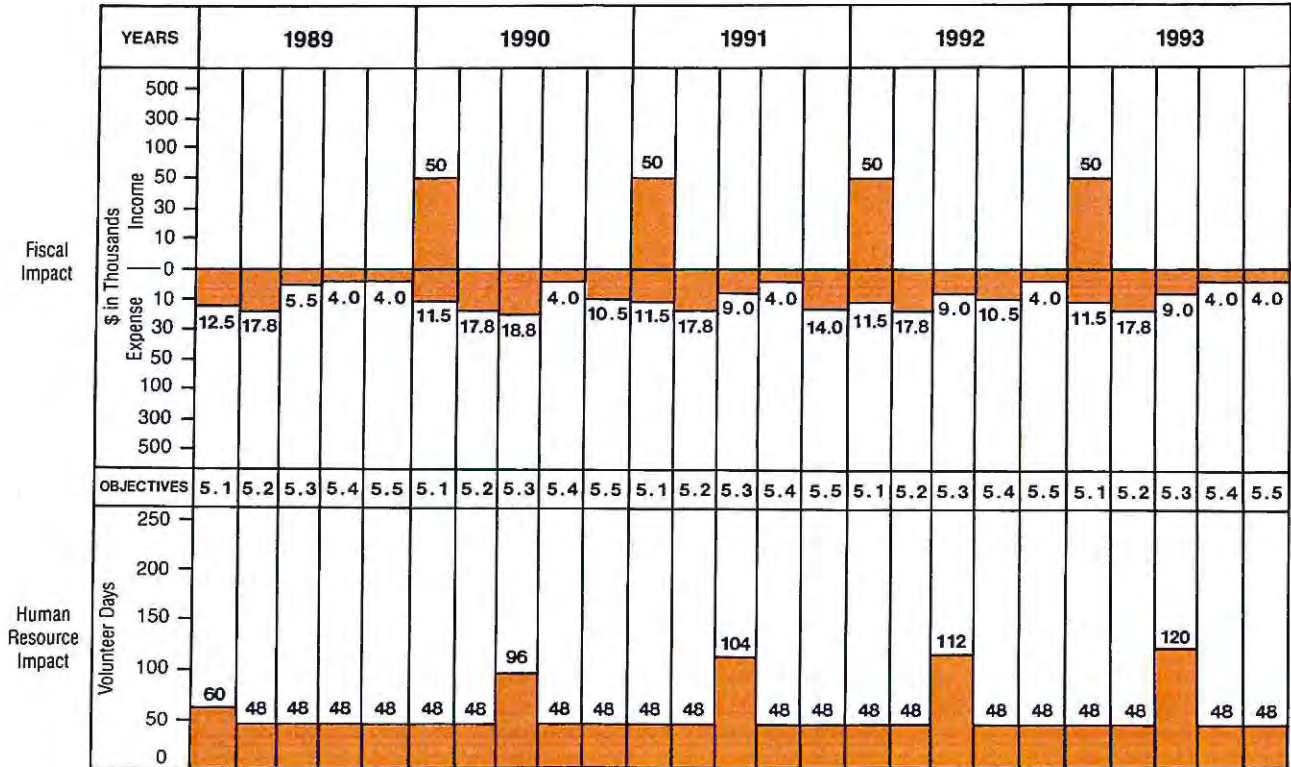
- 5.4 ASHRAE will implement by 1992 an effective and measurable program that will increase the participation of younger members, women, and ethnic minorities in Society activities.

Responsibility: Membership Promotion Committee

- 5.5 A program will be developed and implemented by 1991 to assist chapters in building and maintaining participation of a more balanced membership which reflects the types of vocations and industries in ASHRAE's field of interest.

Responsibility: Membership Promotion Committee

GOAL 5



6. Organization

Goal:

ASHRAE will examine ways in which its organizational structure, including the regions and chapters, can be modified to better accomplish its mission.

As the Society grows in members, scope, and complexity, the organization must be continually reviewed and aligned with current needs.

Objectives:

6.1 To maximize efficient use of available resources, regions will be realigned by 1991 based on the following factors: (a) a maximum geographical area to be served, (b) a maximum number of chapters to be served, and (c) the availability of an adequate

number of volunteers to provide leadership.

Responsibility: Regions Council

6.2 A formal regional management structure and communications plan utilizing regional directors, vice chairpersons, and chapter officers will be developed to improve the effectiveness of each region by 1990.

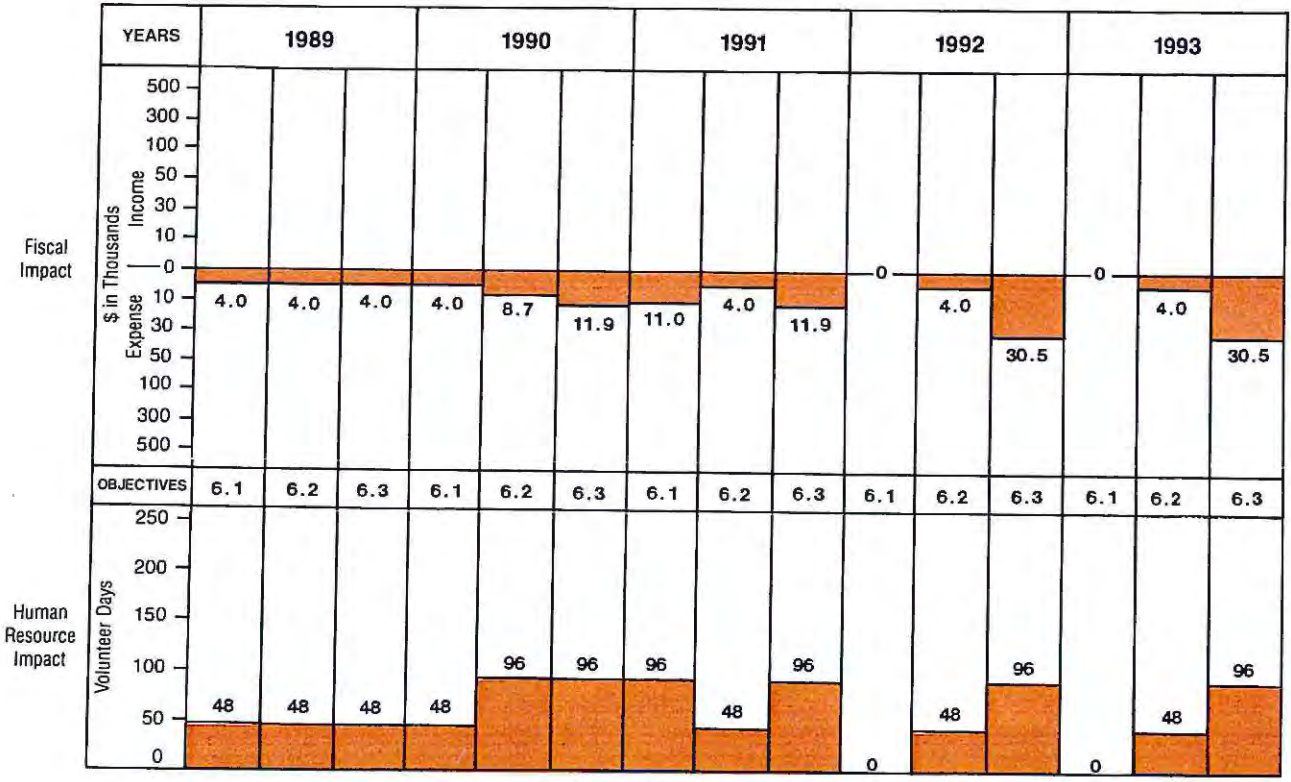
Responsibility: Regions Council

Effectiveness of each region is dependent on communication and structure at all levels of regional management.

6.3 By 1991, a plan will be developed to bring chapters-at-large into the mainstream of Society activity. The plan will facilitate effective communication and technology transfer and the development of Society programs and services tailored to chapters-at-large.

Responsibility: Regions Council

GOAL 6



7. Publications

Goal:

ASHRAE will improve the quality, use, and revenue generation of its publications.

The Society's publications range in quality and acceptance. ASHRAE handbooks are widely accepted and recognized in the industry. However, other publications containing valuable information have not achieved similar acceptance. The net income from publications should be used to further defer costs of member services.

Objectives:

- 7.1 The quality and usage of ASHRAE Transactions will be improved, with a resulting 50 percent increase in sales by 1993. As part of this, a study will be completed by 1990 on the benefits of publishing Transactions as a separate series focused in a topical manner. This does not preclude or take the place of Technical Data Bulletins.

Responsibility: Publishing Council

Presently all papers at the Society meetings are published in Transactions. The review process for technical session and symposia papers varies considerably. Quality and usage could be improved by improving the peer review process, by not publishing all preprints, by improving the technical content of published papers, and by enhancing marketing methods.

- 7.2 The frequency, content, handling of revisions, and costs of ASHRAE handbooks will be analyzed by 1990. Any changes to the present methods of publication will be reviewed for implementation by 1993.

Responsibility: Handbook Committee

Handbook volumes are published on a four- to five-year cycle with varying degrees of revision. While the technical breadth of their coverage has been increasing, page allotments have not grown proportionately. There may have been a sacrifice of both technical depth and educational value due to space limitations.

To date, handbooks are provided at no additional cost to members. Handbook marketing and the handbooks relationship to dues also should be analyzed.

- 7.3 By 1993, all ASHRAE publications collectively will be net revenue generating through an increased emphasis on marketing, sales, circulation, and advertising.

Responsibility: Publishing Council

A broad-based publishing operation which meets the technical needs of the membership and ASHRAE's commitment to disseminate quality materials leading to technological advancement can operate without straining the financial resources of the Society. As all member involvement in the preparation of these documents is based on a volunteer process, all revenues generated above costs should be directed to the general fund for the benefit of the membership.

GOAL 7

YEARS		1989			1990			1991			1992			1993		
Fiscal Impact	500															
	300															
	100															
	50							50			50	50		100	50	
	0															
	\$ in Thousands															
	Income															
	Expense	7.8	24.3	4.0	18.8	24.3	4.0	32.3	24.3	4.0	37.3	24.3	4.0	37.3	24.3	
	50															
	100															
	300															
	500															
	OBJECTIVES	7.1	7.2	7.3	7.1	7.2	7.3	7.1	7.2	7.3	7.1	7.2	7.3	7.1	7.2	7.3
Human Resource Impact	250															
	200															
	150															
	100				96											
	50	24	48	48		48	48	180	48	48	180	48	48	180	48	48
0																

8. Research

Goal:

ASHRAE will expand its research activities both in scope and funding.

ASHRAE has recognized research as a foundation of Society activity. Information gained from ASHRAE research forms part of the basis of the Society's efforts to transfer technology. ASHRAE accomplishes its technology transfer through handbooks, standards, meetings and conferences, technical papers, and formal educational programs.

Environmental, economic, and political issues, as well as a depletion of fossil-based energy resources continue to increase the demand for new HVAC&R technologies.

Objectives:

- 8.1 A revised research planning process will be developed by 1990 and implemented by 1991 that includes (a) identification of existing and emerging technical issues affecting the HVAC&R industry and the resulting effects on the general public, and (b) identification and implementation of research projects which address these issues.

Responsibility: Research and Technical Committee

The present research planning process identifies and prioritizes the internal short-term needs for new technology.

This planning process must be expanded to incorporate anticipated external issues.

- 8.2 The Society's research income and grants for research projects and grants-in-aid to graduate students will increase to \$2,500,000 in 1993.

Responsibility: Research Promotion Committee

- 8.3 Priority on research expenditures will be given to the areas of (a) occupant health and safety including indoor air quality, (b) interfacing of building systems with thermal envelopes, (c) energy conservation, and (d) environmentally safe use of chlorofluorocarbons.

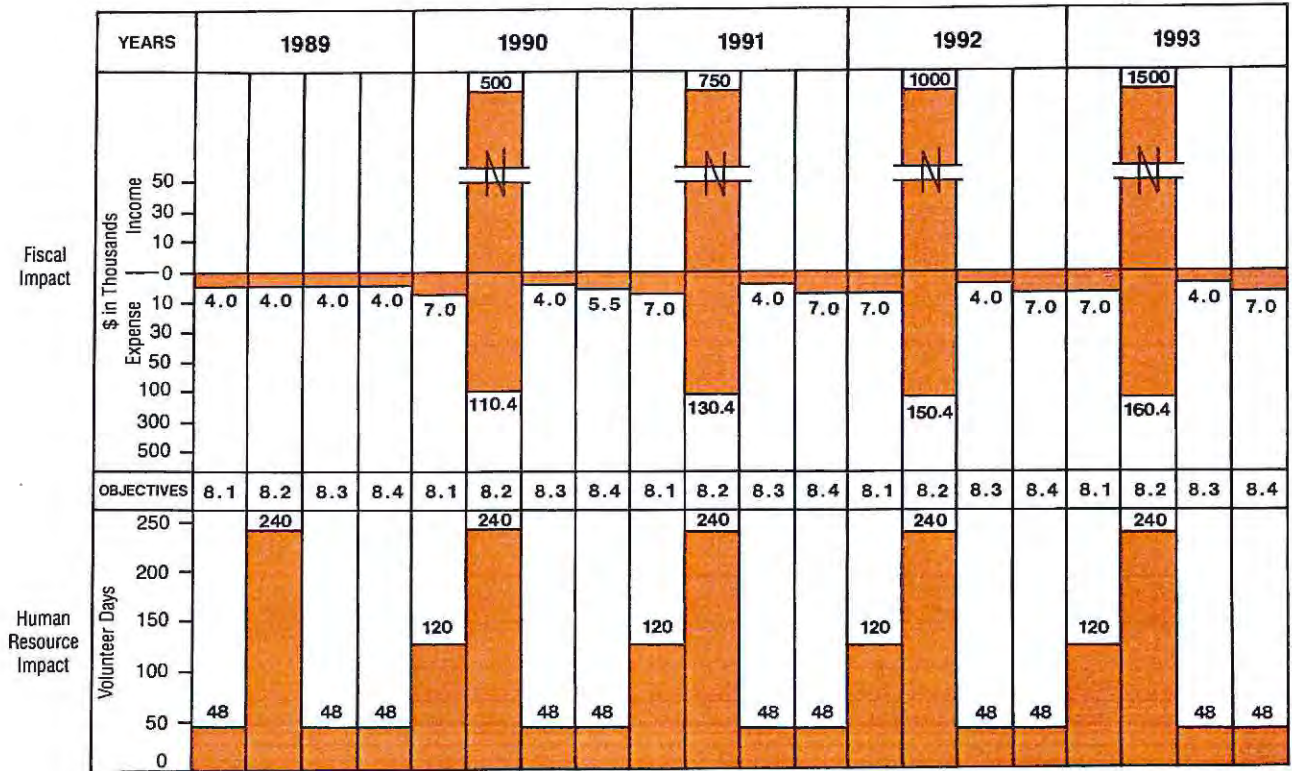
Responsibility: Research and Technical Committee

- 8.4 By 1990, present research contract policies will be reviewed and modified as appropriate to encourage greater student participation. Existing and new policies regarding direct student aid for research will be examined, and where appropriate new programs implemented by 1992.

Responsibility: Research and Technical Committee

The number of qualified graduates entering professions served by ASHRAE is inadequate to meet the future demands of the industry. These new policies or programs will serve to make students aware of the opportunities in the HVAC&R industry.

GOAL 8



9. Technology Transfer

Goal:

ASHRAE will increase the scope and means of its technology transfer, including continuing education.

The transfer of technology is a fundamental obligation of a technical society. Expanded program materials and new delivery mechanisms will be utilized to increase transfer and adoption of technology through the chapter, regional, and societal network.

Objectives:

9.1 By 1993, five existing or new Professional Development Seminars will be packaged for self-study or delivery by chapters, regions, or international associates. One of the seminars will be in a language other than English by 1990.

Responsibility: Education and Chapter Programs Committee

9.2 A report will be presented to the Board of Directors by 1989 as to the feasibility of ASHRAE providing interactive educational programs (satellite conferencing/computer network instruction).

Responsibility: Education and Chapter Programs Committee

9.3 Two audiovisual educational programs, one with materials for the technical community and a second with materials for the general public, will be developed and distributed to chapters each year beginning in 1990. Initial programs will address building energy conservation technology.

Responsibility: Energy and Technical Affairs Committee

9.4 The feasibility of developing a technical repository containing all documents published by ASHRAE, all documents referenced in ASHRAE handbooks, and other publications related to ASHRAE's history and scope will be explored with concluding recommendations implemented by 1993.

Responsibility: Publishing Council

9.5 The feasibility of electronic retrieval of abstracts and complete documents stored by ASHRAE will be investigated and a report presented to the Board of Directors by 1990.

Responsibility: Publishing Council

When accomplished, the 1988 Strategic Plan will have guided ASHRAE in fulfilling its mission for the benefit of the public.

GOAL 9

