A HISTORY OF LIFE MEMBERSHIP AND THE IEEE LIFE MEMBERS COMMITTEE

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The IEEE Life Members Committee administers the Life Member Fund and supports professional activities of interest to Life Members. Life Members are those who are at least 65 years old and whose collective age and years of membership equal 100 or more. Their voluntary annual contributions comprise the Life Member Fund. The committee's focus at the outset was on engineering education followed by history. There followed various initiatives directed toward enhancing the social experiences of Life Members by creating social infrastructures (conference activities, member directory, newsletter, website) that concurrently promoted social interactions among Life Members and encouraged more Life Members to contribute to the Life Member Fund.

The origins of the committee predate the formation of the IEEE by the merger of the American Institute of Electrical Engineers (AIEE) and the Institute of Radio Engineers (IRE) in 1962. The name of the committee has changed over the years since its founding in 1943. The concept of life membership is even older, and what it has meant also has evolved through the decades.

Life Membership.

The AIEE, from its beginning in 1884, had a clause in its Rules (its future constitution) that stated: "Any member or associate may become, by the payment of one hundred dollars at any one time a life member or associate, and shall not be liable thereafter to annual dues."**[[1]](#footnote-1)**

From the start, then, life membership meant dues remission for the member and a revenue source for the AIEE. The one-time payments received from Life Members went into an earmarked account, called initially the Compounded Membership Fund, the interest from which went toward general expenses.**[[2]](#footnote-2)[[3]](#footnote-3)** This compounding account was the notional predecessor of the Life Member Fund.

The sum required for life membership progressively increased over the years. The 21 May 1901 constitution raised the fee from $100 to $200.**[[4]](#footnote-4)** The number of Life Members grew slowly, from 23 in 1896 to 39 in 1907.**[[5]](#footnote-5)** Meanwhile, the rules governing the administration of the compounded fund grew ever more complex. For example, the 1907 constitution limited stipulated that the AIEE would withdraw from the Life Membership Fund, as it became known, $10 per member (the amount the member otherwise would have paid in dues).[[6]](#footnote-6) The thinking behind this and future rule changes was to capitalize a sum that would be sufficient to yield interest equal to what the Life Member otherwise would have paid in annual dues.

In 1912, the AIEE adjusted the life membership fee according to the member's grade. Fellows paid $250, Members paid $200, and Associates paid $150. The amount moved from the Life Membership Fund into general expenses each year until the member's death or resignation was 5% of the life membership fee that corresponded to their membership grade.[[7]](#footnote-7)

In 1916, the AIEE decided to allow the life membership fee to float by making it equal to 20 times the member's annual dues for his grade. The Board of Directors had defeated an alternative motion that would have allowed members to make "a single payment of an amount equal to the cost, from the Mutual Life Insurance Company of New York, of an annuity on the life of a person of the age of the applicant for the amount of the then annual dues of his grade."[[8]](#footnote-8) Nonetheless, the idea of putting the life membership fee on the basis of an actuarial table did not remain a dead letter for long.

Life Gets Complicated.

Nine years later, in 1925, the AIEE reconsidered the annuity option for pricing the life membership fee. The AIEE Secretary had advised the Board that "some of the other societies" already were using an "actuarial plan."[[9]](#footnote-9) The proposed constitutional amendment made the life membership fee a single payment sufficient to purchase a life annuity "of a sum equal to the annual dues of his grade," with the actuarial details to be provided in the bylaws.[[10]](#footnote-10) This was the first mention of life membership in the AIEE bylaws.

The rationale for the change was the belief that putting the fee on an actuarial basis was "much more equitable than the present flat rate" equal to twenty times the annual dues for the corresponding grade of membership, which had risen to $300 for Associates and Members and $400 for Fellows.[[11]](#footnote-11) The Board of Directors "hoped that this change will result in a considerable increase in the number of members who will take out life memberships."[[12]](#footnote-12)

In seeking greater equitability, the AIEE created greater complexity. The Table of Life Membership Rates in the bylaws was "based on American Annuitants Mortality Table," as published in the *Transactions* of the Actuarial Society of America. The table included member ages from 21 to 85 "and over." An Associate or Member (who normally would pay annual dues of $15) could become a Life Member at as early an age as 21 for a single payment of $307.49. Associates and Members 85 and older paid just $71.99, considerably less than the $300 (20 times $15) required previously. Because Associates paid annual dues of $10 for the first six years in grade and $15 in later years, the table included a sliding scale adjustment for them that depended on length of time in grade. The bylaws also contained details on how to establish a member's age for the purpose of applying the Table of Life Membership Rates as well as how to determine the date when the period of life membership began and the date when the life membership fee was due.[[13]](#footnote-13)

The bylaws also spelled out the manner in which the Institute would administer the Life Membership Fund: “This fund shall be so administered as to ensure the maintenance of a reserve at the beginning of the fiscal year corresponding to the annuity values indicated in the above table for all surviving members at their then attained age, less the dues for the ensuing fiscal year which each member would have ordinarily paid."[[14]](#footnote-14)

These new administrative directives meant the creation of a second fund earmarked for life membership fees: the original and a new one based on an annuity table. The bylaws attempted to harmonize the two, so that eventually all life membership funds would fall under the annuity rules.[[15]](#footnote-15) By 1927, it was clear that this approach was not working. AIEE Manager H. A. Kidder called attention to the fact that the AIEE was still carrying two life membership funds on its books. He calculated that it would take another seven years before the requirements were fulfilled. The Board of Directors therefore resolved to expedite the merger of the two funds.[[16]](#footnote-16)

One of the lesser complications that ensued upon adoption of the new Life Membership Fund regulations was the question, equally relevant to IEEE Life Members decades later, of whether Life Members received Institute publications. Carl E. Magnusson, professor of electrical engineering at the University of Washington, raised the question in a letter to the Board of Directors in 1925. He pointed out: “When I became a Life Member of the Institute, 1913, Section 37 of the bylaws, then in force, read as follows: 'The payment of the annual dues by any member entitles him to receive a bound copy of each volume of the *Transactions* for the period covered by such payment.'" Magnusson added: “The payment made, and accepted by the Institute, was for life. It seems to me that a rational interpretation of the bylaw should give me bound copies of future *Transactions* without additional charge.” The AIEE submitted the question to its lawyers. They replied: "Life Members as such have no vested rights to any other privilege than that from time to time accorded to other members, except the exemption from the regular dues . . . Life Members as other members should receive such services only upon payment of the same charge."[[17]](#footnote-17)

Members for Life.

The changes introduced in 1925 also broadened the idea of dues remission. The revised constitution gave the Board of Directors discretionary power to "remit the unpaid dues of any Fellow, Member, or Associate who is in arrears and who has been upon the membership list for a long term of years."[[18]](#footnote-18)

Dues waivers usually went to those long-time members with physical handicaps that barred them from working, such as disabled veterans of World War I[[19]](#footnote-19) and those stricken by blindness or serious illness (tuberculosis, for example).[[20]](#footnote-20) In 1929, as the Board of Directors found itself annually reviewing the cases of certain members who previously had received dues remission, it decided to forgive the dues of eight unfortunate members permanently,[[21]](#footnote-21) a rare measure it did not take again until 1936.[[22]](#footnote-22)

With the onset of the depression, adverse financial circumstances became another consideration alongside, and sometimes in combination with, illness and blindness in granting dues remission.[[23]](#footnote-23) Requests for dues forgiveness also began to come from such European cities as Paris, Budapest, and London as early as 1937.[[24]](#footnote-24) In 1939, the Board of Directors began consulting with the members' Sections in hardship cases. They thought it was "desirable in such matters to consult the Sections, both for the purpose of having a thorough investigation of conditions, and to tie in the Sections with headquarters' responsibilities."[[25]](#footnote-25)

The 1925 constitution created yet a third category of dues remission based on length of membership. The Board of Directors would exempt from future dues payments any Fellow, Member, or Associate who had paid dues for 35 years (regardless of age) or who, having reached the age of 70, had paid dues for 30 years. The rationale was to provide "members of long standing who had helped to build up the Institute and who, for various reasons, may find it a hardship to continue to pay annual dues," with an "appreciation of their loyalty to the organization over a long period."[[26]](#footnote-26) As the AIEE Secretary pointed out, the American Society of Mechanical Engineers (ASME) and the American Society of Civil Engineers automatically exempted from dues payment those who had been members a certain number of years.[[27]](#footnote-27)

This new category of dues forgiveness was like life membership—dues were waived for life—but unlike life membership, it did not require the payment of any fee. The hardship provision of the new category also allowed some of those members seeking a temporary dues amnesty for hardship reasons to receive dues remission for life because of their length of membership.[[28]](#footnote-28)

What would the AIEE call members in this new category? The first members who applied for and received dues exemption for life under the new rules had been elected to AIEE membership in 1889 and 1891. While the Board of Directors was discussing these cases at its May 1926 meeting, George L. Knight, the Finance Committee chair, suggested that "it would be a graceful thing to present exemption from the payment of dues of members who have been on the membership list for thirty-five years or more, in the form of a 'life membership.'" The Board agreed and referred the matter to the Finance Committee for consideration.[[29]](#footnote-29)

The Finance Committee recommended that these members be called Members for Life as opposed to Life Members who commuted their future dues by paying a single sum specified in the Table of Life Membership Rates. The Board of Directors voted to designate all members so exempted as Members for Life. Also at their June 1926 meeting, the Board, on the advice of the Finance Committee, dropped the requirement that members apply for Member for Life status. The language they proposed for the next round of amendments to the constitution was as follows: “The Board of Directors shall permanently exempt from dues, any member who has paid dues for thirty-five years, or who has reached the age of seventy years after paying dues for thirty years. Such members shall be designated 'Members for Life'."[[30]](#footnote-30) The eligibility requirement and the designation Member for Life thus set them apart from Life Members.

The Board of Directors, during their December 1926, as they were exempting three new Members for Life, decided that being made a Member for Life was "an honor which should receive publicity." The Secretary would publish an appropriate statement in the society's *Journal* that listed the members on this honor roll.[[31]](#footnote-31) Published in the January 1927 issue of the *Journal* under the heading "Members for Life," the item was a self-described "tribute . . . to the loyalty and valuable services of these members, who were so active in upbuilding the Institute in its earlier days."[[32]](#footnote-32)

Despite their desire to grant Member for Life status automatically, the Board of Directors continued to act on members' applications for life-exemption from dues in 1927 and even into 1928.[[33]](#footnote-33) At their April 1927 meeting, realizing that the desired change could occur only by amending the constitution and that it would be "some time before the constitution is again revised," the Board of Directors voted to send out a form letter to all members eligible to become Members for Life that would invite them to apply for exemption from all future dues as provided in the constitution.[[34]](#footnote-34)

The AIEE Secretary reported that a check of membership admission dates indicated that about 144 members had been affiliated with the Institute for 35 years, while another 203 members had paid dues for at least 30 years and were subject to exemption if they were 70 years old. The Board of Directors, at its May 1927 meeting, decided to send the form letter to the first group "promptly" and later to those of the second group who had the age of 70 years.[[35]](#footnote-35)

The granting of Member for Life status became automatic with the constitutional amendments approved by the Board of Directors in February 1928 and mailed to members in April 1928. Of course, the details would appear in the amended bylaws.[[36]](#footnote-36)

In 1934, as part of its 50th anniversary celebration, the AIEE published a list of "Great Names Behind the Institute" which indicated a number of Members for Life among the AIEE Presidents who had served before World War I (1914) as well as one Life Member who was President 1933-1934.[[37]](#footnote-37) The list, however, was not complete; it omitted those aged 70 who had paid dues for at least 30 years. A subsequent list added them as well as those who had become Members for Life on 1 May 1935.[[38]](#footnote-38) Then, at its January 1938 meeting, the Board of Directors decided that, because Member for Life exemption from future dues had become an automatic procedure not requiring Board action, it was unnecessary to report them at Board meetings, and that another method of record should be devised.[[39]](#footnote-39) Consequently, the names began to appear in the AIEE's journal *Electrical Engineering* as additions to the list of Members for Life.[[40]](#footnote-40)

As the list of "Great Names Behind the Institute" showed, the AIEE now had both Members for Life and Life Members. This duality occasionally gave rise to bewilderment over an apparent conflict within the society's bylaws and constitution. In October 1932, for example, AIEE Director Ashton B. Cooper called attention to the life membership actuarial rates. “From a casual reference to the table, however, it appears to me that in arriving at the life membership rates, no proper consideration is given to the clause in the bylaws which permits exemption from future dues to any Fellow, Member, or Associate who has paid dues for thirty-five years, or who shall have reached the age of seventy after having paid dues for thirty years." In other words, for members of a certain age and length of membership, why make a one-time payment for life membership, when a Member for Life enjoyed the same forgiveness of dues for free? These contradictory bylaws provisions, Copper argued, were out of place "in these days when we are so deeply concerned with resignations and non-payment of dues." The Board of Directors referred the matter to the Special Committee to Consider Associate Dues and Related Matters,[[41]](#footnote-41) where the question quietly died.

Later, in January 1947, past President Charles Powel called attention to the same conflicting rules during the Board of Directors' meeting. During the discussion that ensued, some board members questioned the desirability of continuing the life membership provision; however, canceling it would entail amending the constitution. On Powel's suggestion, the Board of Directors voted to have the President appoint a small committee of board members to recommend whether or not the Institute should have a provision for members to purchase life membership as well as to suggest a revised bylaw.[[42]](#footnote-42)

Powel, who chaired the committee, proposed deleting the sections of the constitution and bylaws that provided for single payments for life membership. Members for Life would "continue undisturbed." The Board of Directors agreed and requested the Committee on the Constitution and By-Laws to recommend deleting the relevant provisions of the constitution and bylaws.[[43]](#footnote-43) Then, at its January 1948 meeting, the Board of Directors approved the amendments drawn up by the Committee on Constitution and By-Laws. Life membership was gone, but not the Life Membership Fund, which continued to pay into the AIEE's general operating account based on the American Annuitants' Mortality Table "for all surviving contributors to the fund."[[44]](#footnote-44)

A Members-for-Life Fund?

Although the Board of Directors excused Members for Life from all future dues, it became apparent that not all Members for Life were taking advantage of the privilege. Instead, they preferred to continue paying dues. In June 1928, the Board of Directors decided to apply the designation Member for Life to these members as well.[[45]](#footnote-45) By 1935, there were around 40 such members who kept paying dues after receiving the form letter announcing their enrolment as a Member for Life. In May 1935, the Board of Directors voted to interpret the bylaws as requiring that the notice concerning eligibility for dues exemption be sent each year with the bill for dues. The Board also opposed a suggestion that dues exemption be made obligatory.[[46]](#footnote-46)

As the number of dues-paying Members for Life grew, the AIEE wondered what it should do with the money other than putting it toward current expenses. In January 1937, AIEE President Alexander MacCutcheon suggested that Members for Life might be interested in contributing to an Institute fund not connected to general operating expenses. The Board of Directors referred the question to National Treasurer Walter I. Slichter, chair of the electrical engineering at Columbia University and himself a Member for Life who continued to pay dues. The idea was that "it might be desirable" for the question "to emanate from a Member for Life rather than from the Board of Directors, as in the latter case it might be misunderstood."[[47]](#footnote-47)

President MacCutcheon's suggestion to create a special fund came up again during the May 1937 meeting of the Board of Directors. In talking to Members for Life, MacCutcheon and Professor Slichter heard entirely conflicting responses. MacCutcheon had mentioned the proposal to four Members for Life, all of whom expressed interest. Slichter reported that "he had not met with any great enthusiasm in an attempt to secure cooperation in issuing a letter on the subject to other Members for Life." The Board of Directors reached a consensus of opinion that, before moving forward, a definite purpose for the proposed fund should be determined. They chose to refer the subject back to Slichter for further study and the formulation of a more definite proposal.[[48]](#footnote-48)

Slichter reported in August 1937 "a generally unfavorable reaction from a group of Members for Life," whom he had approached regarding the proposed fund. Accordingly, the Board of Directors voted to drop the matter.[[49]](#footnote-49)

But, the idea seemed to be too good to be dropped forever. So, in October 1939, the Committee on Planning and Coordination presented the Board of Directors with a list of recommendations, several of which dealt with Members for Life. They advised that dues payments made by Members for Life should "be regarded as contributions to special reserve funds, the purpose or purposes of which should be designated by the Board of Directors with the advice of Members for Life."[[50]](#footnote-50)

Should the Board of Directors approve the preceding proposition, the Committee on Planning and Coordination suggested organizing a committee of Members for Life to consider proposals for the fund's employment as well as "to formulate a letter for informing the present Members for Life and, on May 1 of each year, all who are then Members for Life" concerning the projects underwritten by the fund. As for determining the fund's uses, the committee suggested awards, a pension fund, traveling lectureships, and scholarships.[[51]](#footnote-51)

Professor Slichter reminded the Board of Directors that, two years earlier, the Board had asked him to study the possibility of setting up such a fund, and the Board had voted to drop the matter. Since then, he added, the American Society of Mechanical Engineers (ASME) had done "something along this line," and he suggested that the AIEE obtain information regarding that society's experiences.[[52]](#footnote-52) The Board of Directors resolved to postpone further action until its next meeting, when they would have a summary of similar funds established by other engineering societies.[[53]](#footnote-53)

Nonetheless, at that time, in May 1940, the Board of Directors voted to table the question of establishing a special reserve fund with the dues paid by Members for Life, pending the report of the Joint Committee on Reorganization of American Engineering Council, which potentially might broach the subject.[[54]](#footnote-54) However, many issues were of greater importance, and the Joint Committee's report, submitted in August 1940, contained nothing regarding membership matters.[[55]](#footnote-55)

In January 1941, the Board of Directors returned to the disposition of the dues paid by Members for Life. By then, "50 or 60 members" continued to pay dues amounting to "about $900 or $1,000" a year. The Committee on Planning and Coordination had proposed applying the funds toward, among other projects, increasing the "number or value of prizes to be awarded for papers by the younger members of the Institute." Specifically, they advised establishing a "Members-for-Life Prize" to be awarded to younger members (those under thirty) for "possibly a paper, an accomplishment, or something like the Eta Kappa Nu award."[[56]](#footnote-56) Eta Kappa Nu was a national honor society for electrical engineering students founded in 1904.

As a prize, the Committee on Planning and Coordination suggested "a paid-up life membership and a medal, with possibly the addition of a cash prize," all paid from the annual dues payments of Members for Life. The committee believed "that the prize might well be substantial and rather outstanding." Also, "in working up the details," they advised that "some provision should be made for giving recognition to the men whose voluntary payments had made this prize possible."[[57]](#footnote-57)

The Board of Directors liked the proposal. They voted to adopt the recommendations of the Committee on Planning and Coordination for establishing a Members-for-Life Prize" and appointed a special committee to develop definite plans.[[58]](#footnote-58) In August 1941, the Board voted to compose the Special Committee to Develop Plans for a "Members-for-Life Prize" entirely of Members for Life.[[59]](#footnote-59)

At the June 1942 meeting of the Board of Directors, Professor Slichter, as chairman of the Special Committee of Members for Life, reported the conclusions reached as a result of opinions obtained from canvassing a representative number of Members for Life. Almost unanimously, they disapproved of any change in the disposition of their dues payments. Moreover, "it appeared difficult to find a purpose for this money which would please all, or even a majority, of the contributors other than the present use, which is for the general good of the Institute." Slichter explained that the amount of money involved was too large to be allocated to just prizes, as it exceeded the amount of any prize then offered, and "it would be difficult to set any standard of achievement which would warrant such prize." He suggested that, if the Board of Directors wished, it might allocate the income to offset the loss by the remission of dues of older members who no longer could meet their dues obligations.[[60]](#footnote-60)

Slichter's Special Committee thus recommended making no change in how the AIEE treated the voluntary payments made by Members for Life. They further advised that the dues not be made the rationale for establishing any special prizes, but rather if the Board wished to establish prizes, they should be set up on their own merits alone. The idea of a special fund consisting of Members for Life payments to be used to underwrite a special prize was dead, once again.

The Members-for-Life Fund.

In 1943, the idea received new life in 1943. Instead of arising within the Board of Directors or the Committee on Planning and Coordination, the proposal came from the Committee on Student Branches. A June 1943 conference of Student Branch Counselors organized by the Committee on Student Branches recommended that the AIEE establish more student prizes. The counselors estimated the annual cost of the prizes to be about $750. Subsequently, the Committee on Student Branches voted to propose the establishment of a special committee—representatives from the Committee on Student Branches, the Committee on Award of Institute Prizes, and the Finance Committee—to review present and proposed prizes and to submit recommendations to the Board of Directors.[[61]](#footnote-61)

The reasoning behind the prizes was to motivate more young engineers to attend AIEE meetings, because the sooner they became valuable members, their contributions to the Institute would increase. The Board of Directors saw two building blocks that would support this development: (a) "friendly association with older members" and (b) a partial defraying of students' traveling expenses to national meetings. Students presenting meritorious papers might be sent to a national meeting, and young engineers who had papers accepted might be sent to meetings to present their papers.[[62]](#footnote-62)

The special committee offered several recommendations. They suggested that the dues paid by Members for Life be made available for these purposes. They also asked that the AIEE President appoint a committee of Members for Life to explore the feasibility of this proposal. The Board of Directors responded favorably and named a committee of Members for Life to consider these suggestions as well as to recommend a purpose and procedure for the use of dues paid by Members for Life.[[63]](#footnote-63)

The Special Committee on Use of Dues Paid by Members-for-Life reported to the Board of Directors in November 1943. Their report for the first time defined in detail the establishment and administration of a special Members-for-Life fund. The voluntary dues would go into a separate account in the custody of the AIEE Treasurer and would be "suitably designated indicating its source as, for example, 'Members-for-Life Fund.'" The fund would "be inaugurated by a contribution of the sum of $10,000 from the reserve funds of the Institute." The use of the capital and interest was limited to "such special purpose or purposes as will aid the objectives of the Institute." Finally, the Institute was to retain at least 25% of the dues received each year "as an addition to the 'capital' part of the Fund for application to a non-recurring project deemed suitable for financial support, the remainder of the yearly receipts being available for such annual recurring or other projects as may be established."[[64]](#footnote-64)

The Special Committee on Use of Dues Paid by Members-for-Life also called for the founding of a committee responsible for administering the fund and provided it with a concise charter. This committee would have "complete and sole administration of the Fund and the particular purpose or purposes for which it may be used." The Special Committee charged the fund committee with preparing and submitting to the Board of Directors for their approval a set of “Rules and Regulations” covering "the types of purposes for which the Fund may be used, committee appointment and organization, rules governing any award or awards which may be supported by the Fund or the granting of moneys from the Fund for other approved, purposes, etc."[[65]](#footnote-65)

The Board of Directors in January 1944 approved all of the special committee's recommendations with the exception of the proposal to launch the special fund with a transfer of $10,000 from the Institute's reserve funds. They also modified the committee's charter to authorize the AIEE President to appoint the committee members and to determine the number of its members. A further emendation stipulated that Members for Life would compose the committee.[[66]](#footnote-66)

The special committee had polled its members regarding five potential categories of projects that the fund might support, but its report to the Board of Directors was vague regarding any "particular purpose or purposes" for using the new fund. The consensus of the Board's opinion was that "the new committee’s consideration of projects for the fund should not be restricted to those mentioned in the report."[[67]](#footnote-67)

As a result, the newly constituted Committee on Members-for-Life Fund was free to devise its own uses for the fund, but that freedom was curtailed by the failure of the Board of Directors to transfer $10,000 in assets to the fund from the start. It would take another five years for the Members-for-Life Fund to reach that level, thanks largely to transfers from the Operating Fund. Meanwhile, the low value of the fund would curtail its use.

In principle, the Members-for-Life Fund consisted of all monies received from Members for Life voluntarily in lieu of annual dues.[[68]](#footnote-68) The number of Members for Life was growing. As of 30 April 1944, the AIEE had 1,028 Members for Life, up from 733 on 30 April 1942.[[69]](#footnote-69)

Even with this dramatic membership expansion, the Members-for-Life Fund was in need of cash injections. Members' dues payments were going into the Operating Fund, so the Board of Directors had to authorize the deposit of fiscal 1943-1944 dues payments in the Members-for-Life Fund, which amounted to only about $1,500. The value of the fund's capital finally approximated the $10,000 start-up figure five years later at the end of fiscal 1948-1949, and it consisted almost entirely of deposits from the Operating Fund.[[70]](#footnote-70)

Meanwhile, the Committee on Members-for-Life Fund set about organizing itself, fleshing out the skeletal charter proffered in 1943 and amended by the Board of Directors in 1944. The Board of Director gave its approval "in principle" to the modified charter at its April 1948 meeting.[[71]](#footnote-71)

Several actions proposed by the new committee became the archetypes of procedures and practices for years to come. For example, they suggested a "specially designed inexpensive" Special Life Membership Card to be mailed to all new (as well as to all existing) Members for Life with a suitable letter from the AIEE Secretary. New Members for Life also received a copy of a statement on the background and use of the fund published in the October 1948 issue of *Electrical Engineering*.[[72]](#footnote-72) The statement also served another purpose: the solicitation of donations to the fund. In 1952, when the Committee on Members-for-Life Fund again turned to publishing an article in *Electrical Engineering* on the fund and its uses, they took care "to avoid the appearance of a direct solicitation of dues payments from Members-for-Life, all of whom are entitled to exemption from dues.[[73]](#footnote-73) The regular publication of new Members for Life in *Electrical Engineering* also promoted the fund and encouraged contributions.[[74]](#footnote-74)

In February 1949, the Board of Directors approved bylaw Section 73A, as recommended by the Committee on Constitution and Bylaws regarding the organization and functioning of the Committee of Members-for-Life Fund. This updated version of the committee's charter stated that the committee "shall consist of not less than five members, one of whom shall be a member of the Board of Directors. The committee shall make recommendations to the Board for the accumulation and disbursement of the Members-for-Life Fund. The fund represents continued payments of dues by Members-for-Life after the date at which they qualify for exemption of dues (in accordance with Bylaw Section 19), together with the returns from investment of unexpended fund principal."[[75]](#footnote-75)

Student Travel Awards.

By 1948, when the Board of Directors okayed these actions, the Members-for-Life Fund already was attempting to help electrical engineering students to attend meetings as a result of a proposal made in 1944, shortly after the establishment of the fund.

In a letter dated 15 June 1944, Frank M. Farmer, former AIEE President and Chairman of the Committee on Members-for-Life Fund, suggested to the Board of Directors that an appropriate first use of the fund would be to pay the expenses to the summer convention (or a technical meeting) of the five District Branch Paper Prize winners. The money would go to the five winning authors in the even Districts in the even years and to those in the odd Districts in the odd years. Each author would present his paper in person as part of the regular convention program. Farmer proposed announcing the awards for only the 1945 and 1946 meetings as a test of the concept. The reaction in general of AIEE members and in particular of student members would determine whether to extend the offer in future years. The committee requested the Board of Directors' approval subject to its acceptance by the Technical Program Committee, which automatically would be obligated to provide a place for five papers on the Summer meeting program each year. The Board of Directors approved the proposition "in principle."[[76]](#footnote-76)

The initial announcement, printed in the January 1945 issue of *Electrical Engineering*, set forth how the District Branch travel awards program would work. As Farmer and the Committee on Members-for-Life Fund had proposed, the five winners of the District Branch paper prize contests would receive payment for their travel expenses to the summer technical meeting to present their papers as part of the meeting's regular technical program. There was no fixed amount awarded. Instead, the travel expenses paid consisted of a mileage allowance "one way from the award winner's home town to the place of the summer technical meeting plus a reasonable allowance per day for the official duration of the meeting." The awards were available to even-numbered Districts for the summer meeting held in even-numbered years and to odd-numbered Districts in odd-numbered years.[[77]](#footnote-77) Although announced and offered in 1945, the realization of the awards lay in the future.

As we saw above, the AIEE was still building up the Members-for-Life Fund. So, in July 1946, the Committee on Members-for-Life Fund decided that the awards would undergo a four-year, instead of a two-year, trial period. They reached their decision "in view of the disturbed conditions which have prevailed in the universities and colleges during the past few years."[[78]](#footnote-78) The committee was more specific the following year, when again no awards had been made, "because of conditions instant to the aftermath of the war."[[79]](#footnote-79)

The aftermath of World War II was a very real factor, but it was not the only issue weighing on the Committee on Members-For-Life Fund. The committee did not meet, but rather corresponded by mail and reviewed the account's use and made recommendations to be embodied in a report to AIEE President Blake D. Hull for consideration by the Board of Directors at the 1948 summer general meeting.[[80]](#footnote-80) Meanwhile, the awards hit another speed bump.

At the April 1948 Board of Directors meeting, H. M. Turner, Chairman of the Technical Program Committee, told President Hull that there was no place on the program of the 1948 summer general meeting for the presentation of papers by the winners of the even-numbered Districts’ contest. Regardless of the ways suggested to accommodate the prize winners with an additional parallel session or a special occasion, the AIEE had committed itself to having the papers presented at the meeting. According to the rules, the Board reminded Turner, it was the function of the Technical Program Committee to schedule the papers. The Board of Directors, therefore, felt that it was a problem for the Technical Program Committee to work out.[[81]](#footnote-81)

Finally, in 1948, even as the Members-for-Life Fund remained below $10,000, the committee gave its first travel awards. Also, the Board of Directors endorsed the recommendation of the Committee on Members-for-Life Fund that the present scheme be continued, until such time as the annual income warranted expanding the award to all District winners each year. Only two months later, in August 1948, the Board of Directors was considering a suggestion that the awards be made annually to the winners in all District Branch competitions. The Committee on Members-for-Life Fund thought that the fund's growth rate might allow that expansion to take place in one or two years. However, as the Finance Committee pointed out, there had not been sufficient experience to know what even the present odd-even plan would cost.[[82]](#footnote-82) After all, the first disbursements had taken place only months earlier.

During its 23 January 1951 meeting, the Committee on Members-for-Life Fund, "after a long discussion . . . unanimously agreed that, with the uncertain conditions now existing, it was undesirable to increase the expenditures of this committee." The "uncertain conditions" arose from the Korean War, which had started six months earlier in June. The committee therefore recommended continuing as they had up to that time: considering only the odd-numbered districts one year and the even-numbered districts the next year.[[83]](#footnote-83)

The Board of Directors learned of a possible solution in June 1951, when AIEE President Fred O. McMillan presented the simple suggestion of the Committee on Student Branches: until such time as the Members-for-Life Fund generated adequate revenue, the Board would appropriate the difference between the amount that the Members-for-Life Fund could supply and the total amount needed to provide for the annual attendance of all District Branch paper prize winners to the summer general meeting. The Board of Directors endorsed the recommendation "in principle."[[84]](#footnote-84)

In a letter dated 19 October 1951, Mark Eldredge, Chairman of the Committee on Members-for-Life Fund, responded to the Board of Directors' decision. After giving further consideration to the question, the committee concluded “that the Fund and the income are such that we can adequately and safely meet the expenses for the winners of Student paper prize contests from all Districts."[[85]](#footnote-85) The committee told the Board of Directors that the annual awards would begin with the 1952 Summer General Meeting in Minneapolis. However, the Committee on Members-for-Life Fund later reported that, during the fiscal year ending 30 April 1952, they had provided travel expenses to meetings for only some of the winners of the student paper prize contests. The amount available in the account had not been sufficient to meet the travel expenses of all winners, so they continued the odd-even system.[[86]](#footnote-86)

As the Members-for-Life Fund grew, the travel expense awards went to winners from all Districts. Then, in 1956, the committee approved providing Districts with funds to award a $25 second prize and a $15 third prize for District student paper contest winners.[[87]](#footnote-87) The first prize (given by the AIEE) remained $25, but the Members-for-Life Fund augmented it with its "all expense" trip to the summer general meeting. As a result, students now could compete for first, second, and third place cash prizes, instead of just a first place cash prize.[[88]](#footnote-88)

Earlier, in 1948, the Committee on Members-for-Life Fund had proposed two other programs aimed at student members. One was the establishment of a loan fund for needy electrical engineering students; the other was a scholarship to electrical engineering students who were the sons of members. The Board of Directors did not approve these.[[89]](#footnote-89) Nonetheless, they indicated the committee's deep interest in electrical engineering education.

A Medal for Educators.

As the Members-for-Life Fund grew in 1955 and 1956, the committee began to consider new purposes for it. The idea of a prize—rejected soundly in 1942—returned. The committee's 1948 charter as approved by the Board of Directors had charged it with using the fund "for prizes and other similar purposes."[[90]](#footnote-90) In 1955, as the committee turned its attention to the creation of a medal, several AIEE officers sensed that the ways for recognizing engineering achievements were lagging far behind both the growth of Institute membership and the number of achievements worthy of professional recognition. In early 1954, former AIEE President E. B. Robertson challenged the Technical Committees to determine which areas should be honored and to seek new channels of recognition.[[91]](#footnote-91)

The Committee of Members-for-Life Fund echoed this demand for more Institute medals, and in 1955, established its own medal to emphasize the field of education.[[92]](#footnote-92) As W. R. Brownlee, chairman of the Recognition Awards Committee, pointed out, the AIEE Members-for-Life Fund Medal in Electrical Engineering Education was "the first new medal administered by the Institute since 1928, when the Lamme Medal was founded. The only other medal under the sole control of the AIEE until then was the Edison Medal, established in 1909."[[93]](#footnote-93)

The intention was that the education medal would be the first of several medals supported by the Members-for-Life Fund. The medal recognized "excellence in teaching, ability to inspire students to higher achievements, contributions to the teaching of electrical engineering in textbooks and in writings on engineering education, active participation in the work of the professional and educational societies, and contributions to teaching and the profession through research, engineering achievements, and technical papers."[[94]](#footnote-94) The emphasis on education reflected the committee's interests, but also avoided duplicating the five awards proposed in 1956 by the AIEE Special Committee on Prize Awards for "meritorious achievement" in communication, electric power, industry and transportation, electronics, and electricity and magnetism.[[95]](#footnote-95)

The Committee of Members-for-Life Fund then began developing the rules and procedures necessary for establishing and administering the medal.[[96]](#footnote-96) The decision to award a gold medal and certificate was in line with the AIEE Committee on Prize Awards' own proposal for new awards, which recommended that awards be "of approximately the same monetary value as the existing Edison and Lamme Medal Awards" and that they consist of either a gold medal or a bronze replica of the medal plus a certificate or a less expensive medal "supplemented by a financial award to reach the same total cost" as the first alternative.[[97]](#footnote-97)

The design of the medal and certificate took place under the supervision of the committee, which specified that the gold medal would be the same size as the AIEE's Edison and Lamme Medals. The award initially included a watch charm replica of the medal.[[98]](#footnote-98) By 1960, however, the award consisted of a cash stipend of $500, a bronze medal, and an engraved certificate.[[99]](#footnote-99)

The committee did not follow the recommendation of the AIEE Committee on Prize Awards to name the medal "in honor of some AIEE member (living or deceased),"[[100]](#footnote-100) although the Board of Directors did pass to the Members-for-Life Fund Committee a proposal that it be named in honor of Fred O. McMillan, the late Past President of the AIEE and head of the Electrical Engineering Department at Oregon State College (now Oregon State University) in Corvallis.[[101]](#footnote-101) The Members-for-Life Fund Committee retained the right to name the medal after "a past or present member of the Institute."[[102]](#footnote-102) The Board of Directors had a definite name in mind for the medal. It would "be known for the present," they ruled, as the "American Institute of Electrical Engineers Medal in Electrical Engineering Education Provided by the Members-for-Life Fund."[[103]](#footnote-103)

In August 1956, the Committee on Members-for-Life Fund reported that "a substantial number of nominations has been received to date."[[104]](#footnote-104) The bestowal of the first medal took place at the 1956 Fall General Meeting in Chicago, during a special session held on 2 October 1956. The winner was Frederick E. Terman, Stanford University provost and dean of the School of Engineering.[[105]](#footnote-105)

At the request of the Members-for-Life Fund Committee, the AIEE Prize Awards Committee assumed administration of the medal and the selection of winners through a subcommittee of the Prize Awards Committee supplemented by liaison members from both the Education Committee and the Members-for-Life Fund Committee.[[106]](#footnote-106)

IRE Life Members.

Just like the AIEE, the Institute of Radio Engineers (IRE) had Life Members, but unlike the AIEE, did not have them from the start in 1912. By 1942, when the IRE first considered life memberships, the society already waived dues for hardship cases[[107]](#footnote-107) in accordance with its constitution, which stated: "Under exceptional circumstances, the payment of fees and dues may be deferred or waived in whole or in part by the Board of Directors."[[108]](#footnote-108)

Discussions about life membership initially met defeat. In 1942, for example, the Executive Committee considered providing life memberships "on either an honorary basis, by remission of dues, or by paying future dues in a lump sum" and agreed "that no recommendations on this subject would be desirable at this time."[[109]](#footnote-109) Again in April 1943, in response to a telegram from J. C. R. Punchard of the Montreal Section requesting information on a life membership, the Executive Committee, after some discussion, decided: "it was the general opinion that no life membership could be considered for the present."[[110]](#footnote-110)

Two months later, in June 1943, the IRE was in the midst of introducing new membership categories—Fellow, Member, Associate, Affiliate, Student—and raising annual dues at the same time. The Board of Directors also discussed adding a Section to its constitution that read: "After a member has attained the age of 65 years and has been a member (of Associate or higher grade) (above Student grade) for 35 years, he shall retain his attained membership grade for life without further payment of dues." The Board unanimously voted to table the amendment "without prejudice."[[111]](#footnote-111)

Over a year later, in September 1944, the Board of Directors again considered providing dues forgiveness to older members in a bylaw amendment known as Section H. It would waive "the dues of each and every member of the Institute who has attained the age of 65 years and has been a member of the Institute for 35 years."[[112]](#footnote-112) Section H came up for discussion again, along with another new section (Section B), during the Board's October 1944 meeting, when "further consideration of the proposals was deferred to the next meeting."[[113]](#footnote-113)

The Board of Directors next discussed Sections H and B in November 1944. Chairman Raymond Heising pointed out that the two Sections "could be included either in the Bylaws or in the Constitution." The Board voted, with four dissenting votes, to incorporate them in the bylaws. However, after more discussion, those who had opposed the first motion moved, seconded, and approved reconsidering the proposed bylaw sections at a later date.[[114]](#footnote-114) When the Board of Directors met again later that month, they approved Section H with just one dissenting vote.[[115]](#footnote-115)

But that was not the end of the story. The IRE was still debating changes to its membership and dues structure. In August 1944, Harold P. Westman, a member of the Executive Committee and Board of Directors, presented the Executive Committee with a petition, signed by 44 voting members (more than the required 35 signatures), regarding member fees and dues. It would have abolished all transfer fees and made the annual dues for all grades just $10, with the exception of Students who would pay $3. The Executive Committee, acting on the advice of counsel, decided to mail the original amendments to members first, followed by the Westman amendment.[[116]](#footnote-116) The votes cast during the first mailing approved the original amendments, including Section H (now bylaw Section 30).[[117]](#footnote-117)

Things became complicated with the counting of ballots on the Westman amendment, which received a favorable vote of 83.3%. Alfred N. Goldsmith moved that the Executive Committee recommend to the Board of Directors that the Board put aside all dues changes until 1 January 1946, as called for under the Westman amendment. The Executive Committee approved.[[118]](#footnote-118) Goldsmith, in addition to an illustrious career in electrical engineering research and teaching, contribute to and molded the professional organizations of his field. He was on the committee that oversaw the merger of societies that resulted in the establishment of the IRE, and he was the first editor of the IRE's *Proceedings*, remaining in that position for over four decades.

Subsequently, in September 1947, Goldsmith moved that the Executive Committee recommend to the Board of Directors that the Board approve the proposed bylaws—with the exception of Section 30 (formerly Section H). The Executive Committee agreed[[119]](#footnote-119) and seemed to leave the future of life membership in doubt.

However, the next day, on 10 September 1947, the Board of Directors received the tabulated results of the 28 April 1947 ballot on amending the constitution. Benjamin Shackelford, who chaired the Constitution and Laws Committee, moved that the Board adopt the bylaws dated 10 September 1947. By casting more than two-thirds of the votes in favor of the bylaws, the Board adopted them.[[120]](#footnote-120) The new bylaws included Section 29, which was the Westman amendment with the exception of Associate member dues, and Section 30, which stated: "The Board, by this Bylaw, waives the dues of each and every member of the Institute who has attained the age of 65 years and has been a member of the Institute for 35 years."[[121]](#footnote-121) In 1954, the Executive Committee clarified that the 35 years of membership could be either continuous or cumulative, say, if there had been a lapse in one's membership.[[122]](#footnote-122)

In July 1948, the Executive Committee learned that 11 members qualified under Section 30 to be Life Members. President Shackelford wrote a letter of congratulations to each one,[[123]](#footnote-123) several of whom wrote back acknowledging receipt of his letter.[[124]](#footnote-124) President Raymond F. Guy continued his predecessor's practice of writing a congratulatory letter to new Life Members.[[125]](#footnote-125)

In 1950, the Executive Committee decided to add the letter "L" after a member's name in the Yearbook to indicate life membership followed by the year the member became a Life Member (a practice dropped in 1953).[[126]](#footnote-126) The life membership notation was placed in parentheses, so that it would not seem to indicate a higher grade of membership. The Yearbook, furthermore, would not contain a separate listing of Life Members. The Executive Committee also voted against issuing a special life membership certificate.[[127]](#footnote-127) By September 1950, the IRE had 28 Life Members and by 1954, 65 Life Members.[[128]](#footnote-128)

With the Executive Committee responsible for Life Members, the Board of Directors appeared to be unaware of their existence. In 1950, Donald B. Sinclair reported receiving a letter asking if the IRE had ever considered the matter of life memberships. Alfred Goldsmith commented that the subject had come under consideration on at least two occasions some years previously and that arguments had been raised against it, namely that "such a program would necessitate the assumption of a long-term and indefinite commitment, and that in an era of steadily rising prices, it was a hazardous policy." William R. Hewlett noted that some societies with life memberships were finding them to be a heavy burden. Stuart L. Bailey then pointed that the IRE bylaws, Section 30, waived the dues of any member who had reached the age of 65 years and had been a member for 35 years. The discussion was over.[[129]](#footnote-129)

In 1953, in response to a suggestion made by the Executive Secretary, the Executive Committee decided to commission the design of an appropriate gold-colored metal membership card for Life Members. They polled Life Members to determine their reaction to the idea of presenting them these cards at the next annual meeting.[[130]](#footnote-130) Although 34 of the 65 Life Members had expressed approval for presenting the gold cards at the annual meeting, with just three disapproving, only 12 of them indicated that they would be attend the meeting to receive the cards.[[131]](#footnote-131) The Executive Committee therefore decided to distribute the cards by mail.[[132]](#footnote-132)

The term "Life Member" did not appear anywhere in the IRE bylaws or constitution, even though IRE Yearbooks referred to and identified Life Members among the membership, until 1959. A major overhaul of the society's constitution and bylaws explicitly established Life Member as a membership grade (Section 201.f) for "all members who have attained the age of 65 years and who have been members of the IRE for at least 35 years." Under dues, Section 207.4 read: "Each and every IRE member who has attained the age of sixty-five (65) years and has been an IRE member for at least thirty-five (35) years shall thereafter have the dues waived."[[133]](#footnote-133)

By 1 January 1958, the IRE had 131 Life Members. One of them was Louise S. McDowell, professor emeritus of physics at Wellesley College, the first woman to become a Life Member.[[134]](#footnote-134)

Inching toward Merger.

The merger of the IRE and AIEE would require a reconciliation of the societies' different names for those holding life membership—Life Members (IRE) versus Members for Life (AIEE)—and a decision on the disposition of the funds associated with those life memberships. The AIEE retained its Life Membership Fund alongside the Members-for-Life Fund until 1957, when the AIEE Board of Directors decided that the Life Membership Fund had "become unnecessary (since the discontinuance some years ago of single payment dues for life)" and voted to transfer the assets to the reserve capital fund.[[135]](#footnote-135) After 1957, then, the AIEE had just the Members-for-Life Fund, but it still had both Life Members and Members for Life. In addition, although a resolution of the IRE and AIEE Joint Task Group provided reciprocal membership in the two societies effective 1 January 1961, the agreement did not extend to life memberships.[[136]](#footnote-136)

Merger documents show that life membership issues were not neglected. One undated document dealing with "Merger Problems Involving Staff" included such issues as "Status of Members-for-Life." It stated: "Definition of IEEE M-f-L [Members-for-Life] needed."[[137]](#footnote-137) Under "operating activities," a draft plan of July 1962 referred lastly and cryptically to the Members-for-Life Fund Committee, which "makes recommendations for the accumulation and disbursement of the Members-for-Life Fund.[[138]](#footnote-138) It said nothing about what to do with the committee or the fund.

It became clear, though, that the Members-for-Life Fund and its committee would remain intact. In October 1962, the AIEE Board of Directors, acting on a recommendation from the Professional Development and Recognition Department, voted: "that the Members-for-Life Fund Committee continue to function as a committee after the merger and continue its administration of the funds now under its control rather than permit the absorbtion [sic] in the general funds.”[[139]](#footnote-139)

The questions of nomenclature and eligibility remained to be settled. Would the merged society have Life Members or Members for Life? The IRE had Life Members, while the AIEE still had some Life Members and a growing number of Members for Life. Each society also had somewhat different eligibility requirements for life membership. The most recent IRE bylaws (effective 19 August 1959) explicitly stated: "The designation 'Life Member' is applicable to all members who have attained the age of 65 years and who have been members of the IRE for at least 35 years."[[140]](#footnote-140) The AIEE rules specified that Members for Life had to pay dues for 35 years (regardless of age) or, after reaching the age of 70, for 30 years.[[141]](#footnote-141)

The differences were not great, but they waited in limbo until the IEEE Board of Directors began to meet in 1963. At its first meeting in January 1963 voted to allow Life Members and Members-for-Life in both societies to continue receiving both *Electrical Engineering* and *Proceedings* of the IEEE without payment of dues "as long as both publications are continued."[[142]](#footnote-142) Beginning January 1964, *Spectrum* replaced *Electrical Engineering*. Later, in April 1963, the Board of Directors affirmed that: "Life Members have same privileges as associated with their grade immediately before becoming a Life Member or with such higher grade to which they may be advanced."[[143]](#footnote-143)

The switch from Members-for-Life Fund to Life Member Fund started in March 1963, when the IEEE Executive Committee proposed the name change. The Life Member Fund was to be "carried on the accounts of IEEE, made up of contributions by Life Members and to which contributions may be made in the future. The purposes for which the fund may be used shall be recommended by the Life Member Fund Committee."[[144]](#footnote-144) The IEEE Board of Directors moved the paragraph on the Life Member Fund from Section 102 to Section 409, which dealt with standing committees,[[145]](#footnote-145) and approved the designations Life Member Fund and Life Member Fund Committee.[[146]](#footnote-146) The Board then approved the Executive Committee paragraph that made the Life Member Fund an account of the IEEE.[[147]](#footnote-147)

IEEE Bylaws Section 102 established the qualifications for life membership. To be a Life Member, one had to have reached the age of 65 years and have been a member of the IEEE—or one of its two predecessor societies—for at least 35 years or be age 70 years and have been a member for 30 years.[[148]](#footnote-148) It was, in a way, an obvious compromise of the AIEE and IRE rules.

By June 1963, the IEEE was receiving a number of inquiries from former AIEE and IRE members who would have been eligible for life membership under the rules of the former societies, but who now found themselves ineligible under the present IEEE bylaws. In response, the Executive Committee proposed, and the Board of Directors passed, an interim bylaw that extended the eligibility rules of the former AIEE and IRE until 31 December 1963 for those members affected by the new bylaws.[[149]](#footnote-149)

The final step in establishing IEEE qualifications for life membership was for the Executive Committee and Board of Directors to lay out specific directives for determining if members qualified. In determining the required years of membership (35 at age 65 years, and 30 at age 70), only years in which members paid dues to the IEEE, AIEE, or IRE counted. A year of concurrent membership in both the AIEE and IRE would count as one year only. Student membership years did not count.[[150]](#footnote-150)

Finally, the IEEE also revised the charter of the Life Member Fund Committee. The 1949 charter of the Committee on Members-for-Life Fund had stipulated that it would "consist of not less than five members, one of whom shall be a member of the Board of Directors."[[151]](#footnote-151) In April 1963, the IEEE Board of Directors set the committee size at five members and specified further that: "At least four shall be contributors to the fund and at least one shall be a member of the Board of Directors."[[152]](#footnote-152) Later, in December 1963, the IEEE Executive Committee approved enlarging the Life Member Fund Committee to eight members,[[153]](#footnote-153) and the Board of Directors gave its okay in January 1964.[[154]](#footnote-154)

The Life Member Fund Committee was now an eight-member standing committee of the IEEE and reported to the Board of Directors which maintained the Life Member Fund among its accounts. The IEEE bylaws provided detailed Life Member eligibility requirements as well as the charter of the Life Member Fund Committee. What remained was to decide the fate of the student paper contest awards and the education medal.

INTERNATIONAL STANDARDS

Both the student paper contest awards and the education medal underwritten by the Members-for-Life Fund were the subject of merger discussions. A merger document from September 1962, for instance, acknowledged that: "The entire complex of Branch, District and National Awards should be considered. In addition to the awards, the matter of travel allowance for a Branch Winner and his Counselor to the District Competition and the expenses of the District winners to The Summer General Meeting (paid by the Members for Life Fund) should be examined."[[155]](#footnote-155) Preliminary organization plans for the IEEE Professional Development and Recognition Department recognized the role of the Members-for-Life Fund and committee in the society's recognition of professional development (recognition and awards).[[156]](#footnote-156)

The merger resulted in no changes, and the IEEE Life Member Fund Committee (LMFC) continued to underwrite both the student paper awards and the education medal. The committee also decided to boost its support of the student awards. Starting in 1956, the first prize had been $25 plus travel expenses to the international convention. Second place and third place winners also received cash awards of $25 and $15, respectively. During the 1960s, many IEEE Regions began to supplement the monetary prizes, so that substantial disparity existed in the total value of the prizes awarded from Region to Region. Therefore, in April 1968, the LMFC proposed increasing the funding of the Student Prize Paper Awards. The Executive Committee, however, was not receptive to the idea.[[157]](#footnote-157)

In 1969, to bring some uniformity among the prize money amounts given to winners in different Regions, the LMFC succeeded in raising the value of its cash awards: $100 for first place, $50 for second place, and $25 for third place.[[158]](#footnote-158) The first place winner continued to receive travel expenses until 1972, when the LMFC doubled the size of the monetary prizes to $200, $100, and $50, for the first, second, and third place winners, respectively.[[159]](#footnote-159)

In 1964 and 1965, the Life Member Fund Committee also voted to underwrite the IEEE Best Student Paper Prize, which consisted of $100 and a certificate. All student papers that won a prize in a Branch or District competition were eligible to be considered for this Institute award, which was presented during the regular Winter General Meeting.[[160]](#footnote-160) The LMFC also approved giving a cash award of $50 and a certificate to the second prize winner and made the award once in 1968.[[161]](#footnote-161) In 1970, acting on a proposal from the Executive Committee, the LMFC agreed to pay the registration fees of students attending the international convention held in New York, but only the one time. As a result, the number of students registering for the convention rose more than 1,600 over the 1969 number.[[162]](#footnote-162)

The IEEE Education Medal, consisting of a cash stipend of $500, a bronze medal, and an engraved certificate, remained unchanged until 1970, when the Board of Directors discontinued the cash award and directed the replacement of the bronze medal with a gold medal and a bronze replica, when funds permitted. As a result, the IEEE Education Medal actually became two medals: one gold and the other bronze.[[163]](#footnote-163)

The Life Member Fund Committee also attempted, without success, to expand the benefits of life membership. In 1968, for example, they asked the Executive Committee to give Life Members free registration at all technical meetings sponsored or co-sponsored by the IEEE or any of its groups. The Executive Committee denied the request, because "it would not be feasible for us to grant this special privilege."[[164]](#footnote-164)

Retirees who did not meet the criteria for life membership found an advocate in the Life Member Fund Committee. In February 1969, in response to retirees' requests for reduced dues, the Executive Committee referred the question to the LMFC.[[165]](#footnote-165) At the next meeting of the LMFC, Chairman John G. Brainerd in turn asked the Executive Committee to consider the possibility of reduced dues for all retirees.[[166]](#footnote-166) A year later, at its March 1970 meeting, the Life Member Fund Committee considered requests for either reduced dues or help in paying them from two retirees living overseas.[[167]](#footnote-167) The LMFC turned down the requests on “grounds of principle,” because such hardship cases were problems for the IEEE, not the Life Member Fund. The committee would make the Executive Committee aware of the requests.[[168]](#footnote-168)

Furthermore, during that same meeting, the Life Member Fund Committee initiated an expansion of its charter to include older IEEE members. The idea was to provide "greater stimulus and impetus, within the Institute, for older members" by amending the IEEE bylaws. Chairman Brainerd volunteered to draft an additional paragraph to the charter as it appeared in what was then Bylaw 310.7. He wrote: "In addition, the Life Member Fund Committee considers suggestions from Institute members for actions of direct interest to older members, and makes recommendations to the Executive Committee of the Board of Directors on various aspects of Institute activities, particularly affecting older members."[[169]](#footnote-169)

Five months later, in August 1970, the Board of Directors added language to the portion of Bylaw 311.7 (Standing Committees) that related to the Life Member Fund Committee and that was not too different from the wording suggested by Brainerd: "The Life Member Fund Committee shall consider suggestions from Institute members regarding activities of interest to older members and shall make recommendations to the Executive Committee of the Board of Directors respecting such activities."[[170]](#footnote-170)

The question of providing dues remission for retired IEEE members remained unresolved, however. In May 1970, the Executive Committee assigned responsibility for acting on retirees' requests for dues remission to the LMFC. The LMFC answered back that, in its opinion, the assignment was inappropriate, and it took no action on several cases referred to it. The Executive Committee instructed General Manager Donald Fisk to "reaffirm the Executive Committee's position to the LMFC."[[171]](#footnote-171) The Life Member Fund Committee's response was to reduce the number of requests for dues relief by creating a new membership category for retirees. The General Manager or his appointed deputy could handle the few remaining cases, and the Board of Directors could establish general guidelines, such as length of membership in the IEEE, financial hardship, and serious illness.[[172]](#footnote-172)

The Life Member Fund Committee then voted unanimously in favor of establishing a new IEEE membership category, Retired Members. Any retired member aged 65 or older who was no longer gainfully employed and who did not qualify for life membership could apply for retired membership status by paying a reduced dues amount. The LMFC also agreed that the years of Retired Member status would count towards the life membership requirement. Subsequently, acting on the LMFC recommendations, the Board of Directors established the "Retired Member" category that allowed reduced dues for certain retired members.[[173]](#footnote-173)

Such initiatives as the special membership category for retirees tended to rankle certain members of the Executive Committee who believed that the Life Member Fund Committee should play a more passive, rather than active, role. As the minutes of the April 1969 Executive Committee stated: "Specifically, the Executive Committee was of the opinion that the Life Member Fund Committee should act like the National Science Foundation, acting upon recommendations referred to it, rather than initiating and acting solely within its own purview. It was suggested that the Life Member Fund review its stewardship in this respect."[[174]](#footnote-174) The LMFC's major activity of the 1960s—international standards—provoked similar responses among the IEEE Executive Committee.

International Standards.

The major thrust of Life Member Fund Committee activity during the 1960s, measured in terms of duration and the amount of funds budgeted, was the support of travel to international standards meetings. That support remained the largest undertaking by the LMFC for many years to come. The self-evident importance of standards was reflected in the long-standing standards committees of the AIEE and the IRE and their IEEE successors. International standards meetings were important not only to the IEEE, but also to electrical industries and the government.

In general, until after World War II, the U.S. electrical industry maintained a largely passive role in the activities of the International Electrotechnical Commission (IEC), whose standards dominated world trade at that time. The purpose of the IEC is to promote international cooperation on all questions of standardization in the fields of electrical and electronic engineering. Based in Geneva, Switzerland, and founded in 1906, the IEC consists of member national committees. The United States participates through the national committee administered by the American National Standards Institute (ANSI). The work of the IEC is carried out by Technical Committees and Subcommittees, each responsible for developing standards for a well-defined technology sector, such as semiconductors.[[175]](#footnote-175)

During the late 1960s, the U.S. electrical industry began to be more active in developing IEC standards. However, in 1966, the fraction of IEC technical committee and subcommittee secretariats held by the United States stood at about 9%, putting it in fourth place behind France, the United Kingdom, and West Germany. The United States had an equally weak presence in the other major international standards organization, the International Organization for Standardization (ISO), established in 1946 and headquartered in Geneva, Switzerland. In 1966, the United States held ISO secretariats on ten of the 118 technical committees that then existed. The country ranked third in the number of ISO secretariats behind France and the UK.[[176]](#footnote-176)

Unlike the countries of Europe, the participation of the United States in the IEC depended on private funds. As pointed out by Leon Podolsky, who was both President of the U.S. National Committee and Vice President of the IEC itself, "in France, in Japan, and Great Britain and Sweden and in many other countries, the contributions made by those governments to their international standards activities represent the totality or include the totality of the dues to such organizations as the ISO and IEC, whereas for the United States, industry, through ANSI, pays all the dues with no government contribution. There is a very substantial amount of money that comes totally out of the private sector."[[177]](#footnote-177)

Industry's reluctance to participate in international standards activities already had been decried as being potentially detrimental to the country's economic strength. In 1964, J. Herbert Hollomon, then Assistant Secretary of Commerce for Science and Technology, in a speech given at an International Panel on Global Standardization in April 1964:[[178]](#footnote-178)

"American Industry's lack of participation in helping chart the future course of global standardization may be costing the nation valuable trade dollars that otherwise might wipe out the balance of payments problem. For a leading industrial nation to refrain from participating in global standards work is to state to the rest of the world that either we don't think the items involved are important, or we think we have a design or production method which is superior to everyone else's. We know that neither of these statements is universally true. If we do not become more sensitive to trends and if we are not able to respond quickly, we are inviting serious problems for our economy."

The IEEE Executive Committee.

In 1963, the IEEE Executive Committee continued support for the Joint International Standards Advisory Committee established in January 1961 by the IRE Board of Directors and the Electronic Industries Alliance (EIA), a trade group. Delegates appointed by the IRE and EIA in 1961-1963 attended several meetings of IEC Committee 12 and its Subcommittees 12A (Radio Communications), 12B (Safety), and 12C (Radio Transmitters) as well as Subcommittee 13C (Electronic Measuring Instruments) and Technical Committees 39 (Electron Tubes) and 47 (Semiconductor Devices, which included Diodes, Transistors, and so-called Micro-electronics) in Norway, France, Denmark, Switzerland. Individual companies paid delegates' expenses.[[179]](#footnote-179)

The IEEE Executive Committee extension of IEEE support of the Secretariat for the Joint International Standards Advisory Committee was put on a monthly basis until the end of 1963, with the understanding that the IEEE Standards Committee would review the arrangement. The EIA would be told that the IEEE had made "no definite commitments" for 1964 and that they should budget for the Joint International Standards Advisory Committee accordingly.[[180]](#footnote-180)

An ad hoc subcommittee of the Standards Committee reported back to the Executive Committee in October 1963. Chaired by Harry Mimmo, it included a representative from the EIA as well as IEEE member Leon Podolsky who was active not only in U.S. national and international standards organizations, but in the EIA as well.[[181]](#footnote-181) The subcommittee reported that the IEEE and the EIA, which provided all of the Secretariat staff, would share equally in the cost of operating the Joint International Standards Advisory Committee. They further explained that the: "Previous lack of U.S. and IRE preparation for international conferences in these fields was indeed highly embarrassing and very inefficient, which led to strong protests by IRE Representatives." They also noted that the "Secretariat service has operated very well, and has corrected these previous serious defects. . . . [Moreover] An interruption of this service would be a major loss to the U.S. position in international technical cooperation."[[182]](#footnote-182)

The ad hoc subcommittee "strongly" recommended as an interim measure the inclusion of $6,000 in the 1964 budget "in order that continuity of Secretariat service may not be lost" and suggested that "possible alternative sources of financial support be explored prior to 1965."[[183]](#footnote-183) At its December 1963 meeting, the Executive Council approved $6,000 for 1964, "with the admonition that this is being done for 1964 only and that IEEE will expect an integrated recommendation by mid-1964 on the overall financial support that IEEE should consider providing for international standards work."[[184]](#footnote-184) Then, in 1966, when it came time to provide IEEE support for a new secretariat for the proposed IEC Technical Committee 63 on Insulation Systems, the Executive Committee rejected the proposal.[[185]](#footnote-185)

The LMFC Gets Involved.

The Life Member Fund Committee became involved in international standards work at the behest of Leon Podolsky, according to Gustave Shapiro. The latter oversaw a large section at the National Bureau of Standards and served on a subcommittee of the IEEE Standards Committee. He believed that Podolsky persuaded the Life Member Fund Committee to set aside $10,000 a year to increase IEEE member participation in IEC activities and, in the process, to promote the goal of the adoption of IEEE standards internationally.[[186]](#footnote-186)

The proposal to underwrite travel to international standards meetings came up during the committee's 22 March 1966 at the Harvard Club in New York City. After exploring various activities that the Life Member Fund might support, the LMFC decided in favor of international standards. "Although the United States is the leading technical nation in areas of interest to IEEE," the meeting minutes read, "we are not matching this with leadership in International Standardization. Part of our backwardness in the standardization field is caused by the lack of industry and professional society financial support either for delegate travel or the paper work that goes with the 'Secretariat.' As a result, other nations outnumber us in delegations and outbid us for the important Secretariats." For example, at a recent meeting of the International Electrotechnical Commission on semiconductors (TC 47) held in Philadelphia, the Japanese had a larger delegation than the United States.[[187]](#footnote-187)

None of the LMFC members present at the meeting had served on the Ad Hoc Committee to Study Value of Joint International Standards Advisory Committee,[[188]](#footnote-188) but two of the five LMFC members present had served actively in the standards community: Chairman Frederick R. Lack and Cyril G. Veinott. Lack had been both a vice-president and president of the American Standards Association.[[189]](#footnote-189) Formed in 1918 as the American Engineering Standards Committee by the American Institute of Electrical Engineers and four other engineering societies, the organization renamed the American National Standards Institute (ANSI) in 1969.[[190]](#footnote-190) Veinott was a member and later chairman of the AIEE Standards Committee as well as an AIEE representative on the Standards Council of the American Standards Association. He also had been active in organizing the standardization efforts of the IEEE during merger talks, and in 1963, he became chairman of the IEEE Standards Committee.[[191]](#footnote-191)

At its March 1966 meeting, the LMFC unanimously approved a proposal to "make available to the IEEE Standards Committee an annual amount of $10,000 a year for a period of five years for the purpose of promoting IEEE participation in the field of such international standards as are within the scope of IEEE." The Standards Committee could use the money to pay for the expenses of delegates or the expenses of the secretariat, or both. The intent was to add this money "to the funds already made available by the IEEE for international standards work, and is not intended to be a substitute for other IEEE support of this activity."[[192]](#footnote-192)

A month later, during the April 1966 meeting of the IEEE Executive Committee, General Manger Donald G. Fink read the LMFC's resolution to use the Life Member Fund to support international standards work. The Executive Committee "questioned whether some other worthwhile possibilities had been considered." Fink stated he would advise the committee later on this issue. A month later, the LMFC's action became the responsibility of Clarence H. Linder and remained so as "pending and unfinished business" through to December 1966, after which Linder was no longer on the Executive Committee, and the matter fell by the wayside for the time being.[[193]](#footnote-193)

At the Life Member Fund Committee's March 1967, Lack was the only member present who had attended the previous 1966 meeting. All the same, Chairman Frederick B. Llewellyn and the members of the LMFC "reaffirmed the resolution . . . whereby the sum of $10,000 a year was made available for five years for the purpose of promoting IEEE participation in the field of such international standards as are in the scope of the IEEE." The Committee expressed the hope that this support could be continued even after the five-year period and that funds could be found to accomplish this.[[194]](#footnote-194)

The antipathy toward the LMFC's program of underwriting travel to international standards meetings began to surface during its 1968 meeting. Only the chair, Frederick B. Llewellyn, and three other members—Cyril Veinott, Haraden Pratt, and John G. Brainerd—were present. Pratt was also a member of the IEEE History Committee, while Brainerd, perhaps most famous for his work leading the ENIAC project, was the current Chairman of the IEEE Standards Committee and also was a member of the American Standards Association and the Advisory Committee to the National Bureau of Standards as well as a U.S. delegate to the International Electrotechnical Commission.[[195]](#footnote-195)

Chairman Llewellyn reported comments made during the September 20, 1967, lunch meeting of the IEEE Executive Committee, which he attended. Members of that committee expressed "some reservations . . . concerning the use of the Fund for Standards activities, particularly if their activities tended to promote U.S.A. Standards in the international field." Additionally, the LMFC had received letters from Professor Eric T. B. Gross, Professor of Electric Power Systems Engineering at Rensselaer Polytechnic Institute, and Titus Le Clair of Gulf General Atomic (originally established as a division of the General Dynamics Corporation), who questioned the use of the Life Member Fund for standards activities.[[196]](#footnote-196) Le Clair, a former AIEE President (1950-1951), was a recognized pioneer and leader in the commercial production of nuclear electricity.[[197]](#footnote-197) Gross, who established the RPI electric power program, shared Le Clair's interest in nuclear power and later wrote a book on the subject.[[198]](#footnote-198)

Despite these signs of opposition, the LMFC was not deterred and "reconfirmed that the apportionment of $10,000 [per year] for five years" to promote "IEEE participation in the field of such international standards as are in the scope of IEEE."[[199]](#footnote-199) At its 1969 meeting, the LMFC laid out its policy on supporting IEEE international standards work in more detail, probably in response to criticism from IEEE members and officers. In particular, it seemed that the LMFC responded to the Executive Committee's remarks by stipulating: "It is not the intent of the committee that the individuals traveling under Life Member Fund auspices would represent only the points of view of the U.S. standards."[[200]](#footnote-200)

Meanwhile, in 1968, the IEEE Standards Committee had become interested in "non-national Standards and the participation of overseas members in IEEE Standards work."[[201]](#footnote-201) The Standards Committee proposed a greatly revised policy statement, which the Executive Committee approved. The new "IEEE International Standards Procedures" began by stating that the IEEE was "a non-national" organization. "It is therefore appropriate that the standards generating activities of the IEEE shall be cognizant of and, whenever possible, shall cooperate with the activities of international standardizing bodies."[[202]](#footnote-202) The Procedures established the International Liaison Standards Coordinating Committee of the Standards Committee. Its role was to "assist the initiating committees in obtaining detailed information on relevant international standardizing activities. Conversely the International Liaison Standards Coordinating Committee shall establish liaison with international working groups, subcommittees, and committees engaged in activities that parallel the work of the initiating committees and arrange for detailed information on IEEE standardizing activities in progress to reach the appropriate international standardizing body."[[203]](#footnote-203)

The IEEE Standards Committee also was concerned with avoiding differences between IEEE Standards and International Standards Recommendations. As a result, starting in 1969, the Standards Committee began to make greater use of the Life Member Fund by establishing numerous "delegate-bridges" between IEEE Standards Activities and International Standards Committees. Despite the increased level of activity, the amount of money expended during 1970 to support delegate travel overseas was less than the amount spent the year before, because the IEC 1970 General Meeting was held in Washington, DC.[[204]](#footnote-204)

All in all, the Life Member Fund Committee authorized the expenditure of up to $10,000 per year for each of the five years from 1966 to 1970. Of the total $50,000 authorized, only $13,012.78 was actually spent. About half of that amount ($6,537.00) was disbursed in 1969 alone, yet only a fraction of the requests for delegate travel support were approved. Starting in early in 1969, funding was provided for only economy air transportation. Delegates were expected to make other arrangements for their subsistence expenses. The travel undertaken was to attend meetings of IEC Technical Committees that dealt with graphic symbols, electronic tubes, semiconductor devices, and the reliability of electronic components and equipment, among others. The meetings took place around Europe in such cities as London, Paris, Stockholm, Geneva, Warsaw, and Moscow and as far away as Tel Aviv and Teheran.[[205]](#footnote-205)

The Life Members Fund Committee was pleased with the results, and in May 1970 all eight committee members voted to extend the authorization of $10,000 per year through 1971 and 1972, with some members voting for a longer extension. They anticipated that IEEE delegate support for those years would "closely approach" the authorized amounts. Moreover, the committee hoped that the authorization would continue beyond 1972, because "the Standards Committee has demonstrated its frugal management of the Life Members’ Fund Committee money for this important activity."[[206]](#footnote-206)

The May 1970 vote, conducted by mail, followed the regular March 1970 LMFC meeting. By the next regular meeting in March 1971, Frederick Terman had been made the new LMFC Chairman.[[207]](#footnote-207) The disposition of the committee made a u-turn. As the minutes read: "The Committee expressed unhappiness with the letter ballot voted to extend the support of International Standardization in the amount of $10,000 each year for 1971 and 1972." A large amount of the 1971 allocation already had been spent. Raymond W. Sears, the Executive Committee coordinator on the LMFC,[[208]](#footnote-208) advised the committee that it was the intention of the Finance Committee to make Standards a self-supporting activity. "It was the consensus of this Committee," the minutes read, "that support of Standards, while a very worthy objective, is not a proper function of the Life Member Fund which represents the personal donations of Life Members. While the Committee will honor any previous commitment, it is hoped that other means will be found to support travel expenses of delegates to International Standards meetings during 1972."[[209]](#footnote-209)

Again, during its March 1972 meeting, the Life Member Fund Committee reiterated its position: "At the 1971 meeting, the Life Member Fund Committee decided that support of delegate travel to International Standards' meetings was not a proper function of the Life Member Fund. At the 1972 meeting the Committee reconfirmed its stand in this regard."[[210]](#footnote-210) A decade later, the 1982 minutes would state: "Funding was withdrawn several years ago as a result of strong personal objections by one of the members of the LMFC."[[211]](#footnote-211)

Brainerd, although no longer on the LMFC, did not give up. In 1973, he requested travel money to certain IEC meetings which industry would not fund. However, because the committee had decided that support of international standardization "is not a proper function of the Life Member Fund which represents the personal donations of Life Members," Chairman Arthur V. Loughren agreed to restate that decision to Brainerd.[[212]](#footnote-212)

The matter remained closed for nearly a decade. In 1982, Brainerd, again a member of the LMFC, believed that the committee should renew its support of international standards activity and requested travel money for the secretary of Technical Committee 25 to International Electrotechnical Commission meetings. Considerable discussion ensued. Donald G. Fink, a member of the LMFC, spoke in favor, but Donald B. Sinclair, while agreeing with the importance of the project, felt it should not receive LMFC approval because support should come from the Institute itself. No further action was taken beyond the discussion.[[213]](#footnote-213)

Subsequently, Julian Forster made two further attempts in 1986 and 1987 to garner LMFC support for travel to international standards meetings. A member of the IEEE Standards Board from 1970 to 1987 and its chair in 1972, Forster worked for more than three decades to develop standards for the nuclear power industry and to promote the IEEE as a key standardization organization. Among other IEEE honors, Forster received the IEEE Charles Proteus Steinmetz Award “For outstanding contributions to the development of standards in the nuclear power industry, and for sustained, innovative leadership in the IEEE standards development process,” in 2004.[[214]](#footnote-214)

When Forster made his request for travel expenses to attend international standards meetings, the Life Member Fund Committee recalled the 1971 decision to terminate support of international standardization because it “is not a proper function of the LMF which represents the personal donations of Life Members” and declared his proposal not to be eligible for Life Member Fund support.[[215]](#footnote-215) When Forster asked for funding again in 1987, the LMFC denied his request on the same grounds.[[216]](#footnote-216) And that was the end of that.

THE HISTORY BEHIND THE HISTORY

The Life Member Fund Committee began its long relationship with the IEEE History Committee and the Smithsonian Institution in 1968. Both the AIEE and the IRE had supported history projects before the merger. In 1906, for example, the AIEE began collecting "models of inventions and patents as may be of undoubted scientific or historic value" and turned them over to the Library Committee for disposition.[[217]](#footnote-217) As the collection grew, a committee of seven—the Historical Museum Committee—took over its management from 1910 until 1916, when the AIEE dissolved the committee.[[218]](#footnote-218)

From the start, the collection's size was "restricted to such apparatus as can conveniently be cared for in the Engineers' Building,"[[219]](#footnote-219) that is, the United Engineering Center in New York City, which opened in 1907.[[220]](#footnote-220) Although space for a museum had been set aside in that building,[[221]](#footnote-221) there is no evidence that the AIEE set up the planned historical museum. Rather, the "historical instruments, apparatus, etc. . . . [acquired] with the intention of maintaining a permanent historical collection" ended up in storage. The AIEE loaned a portion of the crated collection that dealt with electrical lighting and power to the Association of Edison Illuminating Companies, which was preparing for a 40th anniversary celebration of Edison's Pearl Street Central Station in September 1922.[[222]](#footnote-222) Subsequently, in 1929, the AIEE approved the transfer of the artifacts to Henry Ford's museum in Dearborn, Michigan, "with the distinct understanding that it is a loan collection, to be labeled as the property of the Institute, and to be returned without expense to the Institute when desired."[[223]](#footnote-223)

By the eve of the merger with the IRE, the AIEE had no history committee, although there was no lack of proposals to write histories, such as the 1928 proposal from Cornell Professor Vladimir Karapetoff, who had chaired the AIEE Educational Committee, suggested that the society appoint a committee "to consider the compilation of a history of engineering."[[224]](#footnote-224)

During the AIEE's January 1932 Winter Convention, President C. E. Skinner stirred interest in writing (AIEE President) "a comprehensive history of the Institute and of electrical engineering, particularly in regard to the formative years which were so fruitful of advances during the latter part of the last century. . . . It would seem that the American Institute of Electrical Engineers should be the body to arrange for the production of such a history if the funds could be made available and a qualified historian found." Skinner reportedly received "a considerable amount of favorable comment" from representatives of the National Electric Light Association (NELA). Michael Pupin also was favorable to the project. Accordingly, the AIEE Executive Committee decided to appoint the Special Committee on History of the Electrical Industry to discuss the project with NELA members, Pupin, and others.[[225]](#footnote-225)

The special committee was carrying on its work when, in February 1935, C. E. Davies, the Secretary of the American Society of Mechanical Engineers (ASME), informed the AIEE that the society was interested in "looking at some joint activity on the part of all of the engineering societies in stimulating historical research and in encouraging the recording of current progress in a form that would be helpful to future students of engineering history." He invited the AIEE to join them in developing plans for a joint organization for this purpose. The proposed Joint Committee on Engineering History would be composed of any member in good standing of one of the national engineering societies who paid annual dues set at $4. The AIEE Executive Committee did not "view with favor the creation of another joint organization," but referred the matter to the Board of Directors, which was "in favor of cooperating in this undertaking," but was "opposed to the principle of charging individual dues in any of the joint activities."[[226]](#footnote-226)

Nonetheless, C. E. Skinner, Chairman of the Special Committee on History of the Electrical Industry, felt that his committee should go into the question carefully, but he was in no position to continue as its chair. The Board of Directors therefore established the Special Committee on Engineering History composed of three members of the Board plus the Publication Committee head to consider the matter.[[227]](#footnote-227)

In January 1936, nearly a year after the invitation from ASME, the special committee gave its recommendations. They deemed that it was "inadvisable for the Institute to participate in this activity at this time." They concluded: "There seem to be many disadvantages to the formation of a national membership society to support and disseminate engineering history." Engineering societies' periodicals and files already were recording their history, and the "proper function of the Engineering Societies Library [was] to preserve all documents that have historical value and there appears to be little that can be added to what is already done by the Library." Publishing "so-called historical documents would be an expensive undertaking." "A formal organization, with staff and officers and probably a historical journal does not seem advisable considering the vagueness of the program contemplated and the duplication it introduces." The committee was "sympathetic to the idea," but there was "insufficient data and plan of work to permit the Institute to sponsor this project in the expectation that it will be a practical success or will add to the present engineering services and functions rendered by the Institute and the Library."[[228]](#footnote-228)

Following World War II, the AIEE began to encourage Sections to write their own history. In 1946, Vice-President Mervin S. Coover spoke about the importance of maintaining a Section history and urged each Section to establish and maintain a history committee. He suggested that the committee's function would be to build a history of local Section activity and of significant electrical developments in each Section's territory.[[229]](#footnote-229) The effort received official AIEE encouragement, and many Sections set up a history committee.[[230]](#footnote-230) Yet, the AIEE itself lacked a history committee. A 1949 proposal from John G. Brainerd to establish "a committee on electrical engineering history" equally went nowhere.[[231]](#footnote-231)

Nonetheless, the AIEE did engage in historical projects with other entities. In 1955, for example, Smithsonian Institution staff requested AIEE cooperation in developing an expanded and improved exhibit dealing with electrical technology, which most likely was a new exhibit that opened in 1957 and that showed the telephone's evolution from 1880 to the present.[[232]](#footnote-232)

The AIEE also involved itself in an effort to collect, catalog, and preserve historical electrical equipment in cooperation with the Electrical Historical Foundation,[[233]](#footnote-233) a private organization founded and financed initially by Julian K. Sprague of the Sprague Electric Company. Electrical engineer and industrialist Bern Dibner, at first its finance chairman, later took over the organization.[[234]](#footnote-234) Dibner was an avid collector of books and one of the earliest members of the IEEE History Committee. Starting in 1957, the AIEE Board of Directors appointed what was known as an interservice representative to the Electrical Historical Foundation. The representative, former AIEE President Morris D. Hooven, later served as chairman of the IEEE History Committee.[[235]](#footnote-235)

IRE History Committee.

In contrast to the AIEE, the IRE did have a history committee. Its origins dated back to 1949, when Benjamin E. Shackelford, who had been IRE president the year before, suggested that the Executive Committee consider embarking on a compilation of the Institute's history. After some discussion, the Executive Committee appointed a committee, composed of Haraden Pratt and Alfred N. Goldsmith, to study the question and report back.[[236]](#footnote-236) Pratt was a noted American electrical engineer and radio pioneer with an avid interest in electrical, especially radio, history.[[237]](#footnote-237) The IEEE instituted the Haraden Pratt Award in 1971 in his honor, the first recipient of which was Alfred Goldsmith.[[238]](#footnote-238)

Pratt and Goldsmith decided that the first problems to tackle were the format in which the material would be printed and distributed, the estimated publication costs, and subsidizing the expenses. Answering these questions would prepare the way for a steering committee to oversee the preparation of the history.[[239]](#footnote-239)

Meanwhile, in 1950, Columbia University's Department of History had initiated the Radio Pioneers Oral History Project and was looking for external funding. Its aim was to compile a history of radio through a series of tape-recorded interviews with individuals who had been pioneers in various phases of the industry. Would the IRE like to contribute? Although former IRE President John V. L. Hogan moved that the IRE contribute $500, Pratt felt that certain conditions ought to be put on the grant, and the Board of Directors agreed. One condition was that the project provide the IRE with a copy of the questionnaire to be used, "so that the Board members may have an opportunity to peruse it and determine whether questions of interest to the IRE are included, in order that the resulting data may be useful to the IRE for historical purposes at some future date." Another condition was that "the list of interviewees include the names of some persons whom the IRE may wish to suggest."[[240]](#footnote-240)

The IRE eventually contributed and discussed in December 1951 whether to make a further contribution to the Radio Pioneers Project. Pratt pointed out that it was limited to the study of radio broadcasting. IRE former President Raymond F. Guy suggested making the new contribution contingent on the project applying those funds to the acquisition of historical materials of interest to the Institute. In addition, the IRE "would wish to supply the guiding questions for the interviews conducted by means of these funds, and also to specify the list of persons to be interviewed."[[241]](#footnote-241)

Pratt reminded the Executive Committee that he and Alfred Goldsmith had explored the possibility of sponsoring a history of the Institute to be written by a professional writer and published in book form. They had kept further study of that history in abeyance pending the outcome of the Columbia University project. Pratt suggested that, before Guy talked to the Radio Pioneers Project, the IRE ought to appoint "a small committee of experts . . . to examine the material, so far accumulated by the Columbia Project, and determine its usefulness from the standpoint of the possible future sponsorship of a history by the IRE." The Executive Committee agreed, and President Ivan S. Coggeshall named Goldsmith (chair), Lloyd Espenschied, and Austin C. Lescarboura as members.[[242]](#footnote-242)

Goldsmith's committee considered several ways to assess the Radio Pioneers Project and settled on asking for a summary of what had been accomplished to date as well as sampling a few of what might seem to be the more significant contributions.[[243]](#footnote-243) They concluded that: "it was questionable whether the material compiled would be of sufficient value to the IRE in the preparation of a history, to merit further financial support of the Project." But, before making a final recommendation, they suggested sending someone to Columbia University to go over and analyze the material.[[244]](#footnote-244)

Meanwhile, in June 1952, Cyril F. Elwell, known for bringing Valdemar Poulsen's arc wireless transmission method to the United States, wanted to give the IRE two pieces of early radio equipment in addition to those he previously had donated. The offer moved the Executive Committee to discuss the possibility of establishing a collection of small articles at the Institute's headquarters, but the IRE simply did not have the facilities to handle such a project properly "in order to be of real value." Still, the IRE might be able to make some sort of arrangement with a museum, such as the Smithsonian Institution, the Ford museum, or MIT. A new standing committee could act as an intermediary between donors and the museum and could collaborate with the museum in planning exhibits. The scope of such a new standing committee also might include studying the preparation of a history of radio.[[245]](#footnote-245)

Goldsmith and Pratt told the Executive Committee that they would search their files for the plans for preparing an Institute history that they had prepared some time ago and that they would attempt to formulate a specific proposal regarding the scope, membership, activities, and operation of a standing committee on history.[[246]](#footnote-246) Pratt presented the material on a history of radio to the Executive Committee in July 1952. He stressed the "necessity" of setting up a "standing committee of the Institute on History," if a history project were to be undertaken. The Executive Committee agreed and established "the Committee on History" consisting of Pratt (chair), Goldsmith, and "such additional members as the Chairman may designate."[[247]](#footnote-247)

In November 1952, after receiving Pratt's report, the Executive Committee decided to ask the Constitution and Laws Committee to prepare the necessary bylaws amendments to establish a standing committee on history and to add it to those committees coming under the direction of the Executive Committee.[[248]](#footnote-248) The proposal for the IRE to undertake a history of radio, with side trips through the Radio Pioneers Oral History Project and Cyril F. Elwell's donation of historic radio equipment, after being under discussion for several years, now appeared to be leading to the establishment of the IRE History Committee.[[249]](#footnote-249)

The Executive Committee's recommendation to create the History Committee hinged on the Board of Directors also approving the radio history project. The IRE would bear the project's cost, which Pratt explained required a skilled historian and a competent writer. The IRE would support the effort only up to $30,000. The Board of Directors tabled the proposal.[[250]](#footnote-250)

The Board wanted the Executive Committee to consider "whether or not it would be desirable for the IRE to participate in the collection of historic material." If yes, then they wanted "to make inquiry of some of the logical repositories to determine whether there is some possibility that suitable arrangements could be made whereby such a repository would initiate a project in which the Institute would cooperate." They requested the Executive Secretary "to initiate correspondence with several museums, such as the Ford, Smithsonian, and MIT," regarding the possibility of making such an arrangement for the collection of radio artifacts of historical value.[[251]](#footnote-251)

By April 1953, the Smithsonian Institution, the Henry Ford Museum, and MIT had replied. Only the Smithsonian expressed any interest in the project. Later that month, Executive Secretary Henry H. Henline met with Smithsonian Secretary Leonard Carmichael and Remington Kellogg, Director of the National Museum, in Washington. By June 1953, all parties had reached an agreement on preserving radio artifacts.[[252]](#footnote-252)

The Executive Committee then turned to the question of establishing a small standing committee whose "task would be to collect and transmit documentary evidence directly to the Smithsonian, but that the committee would not itself attempt to act as a authenticating body, thereby implying official authentication of individual items by the Institute."[[253]](#footnote-253) Because the Constitution and Laws Committee already had prepared the necessary amendments, the Executive Committee was ready to appoint a History Committee. President James McRae asked Pratt to chair the committee, and the Executive Committee approved Pratt's recommendations for his fellow committee members: Melville Eastham, Lloyd Espenschied, and Keith Henney.[[254]](#footnote-254) When the Board of Directors gave its okay in August 1953,[[255]](#footnote-255) the IRE now had an official History Committee.

The History Committee worked with Robert P. Multhauf, Curator for the National Museum's Division of Engineering, in selecting from a number of early broadcast receivers donated by the Hazeltine Corporation, in transferring to the Smithsonian the artifacts already donated to the IRE by Cyril Elwell, in acquiring a number of Edwin Armstrong's original items from his widow, and in arranging with Bell Laboratories for a suitable display pertaining to transistors.[[256]](#footnote-256) The Smithsonian Institution, in turn, was sufficiently pleased with the arrangement with the IRE that they proposed to solicit aid from other professional societies to cover other fields in a similar way. With its current program of building expansion and renovation going full steam, the museum intended to give telecommunications and electronics particular attention.[[257]](#footnote-257) Moreover, in 1956, the Smithsonian employed a new assistant curator who would handle primarily communication displays.[[258]](#footnote-258) And, in 1957, the Smithsonian and the Bell telephone company organized a communications display,[[259]](#footnote-259) very likely the new exhibit that opened in 1957 and that showed the telephone's evolution from 1880 to the present.[[260]](#footnote-260) Pratt and the History Committee also helped the Smithsonian to launch its new hall of electricity displays intended to be in the new building expected to be completed in 1961.[[261]](#footnote-261)

History Meets the Life Members.

After the merger, the IRE History Committee became the IEEE History Committee. It continued to collaborate with the Smithsonian Institution, now with Bernard "Barney" Finn, who had become curator of electrical technologies in August 1962. Finn and Haraden Pratt started corresponding as early as 1964. It was the start of a long relationship between the History Committee and Finn, who became a consultant to the committee in 1971 and eventually, as a formal committee member, served as Committee Chairman from 1980 to 1982.[[262]](#footnote-262)

The History Committee and the Life Member Fund Committee embarked on their decades-long collaboration starting in 1967, when Pratt, while still chairing the History Committee, joined the LMFC. At the 1968 LMFC meeting, Pratt initiated a discussion that centered around the possibility of the Life Member Fund underwriting the "compilation of a technological history of important events in the communications, electronics, and electrical engineering fields." His proposal received what was characterized in the meeting notes as "cordial attention" from committee members, and Pratt agreed to submit a more formal and detailed proposal prior to the 1969 meeting.[[263]](#footnote-263)

Subsequently, Pratt "explained to the Life Member Fund Committee the need for certain display equipment to house objects and papers of historical significance," and the committee gave its approval.[[264]](#footnote-264) Under the auspices of the History Committee, Nelson Hibshman, the former AIEE Executive Secretary, was preparing a history of the formation of the IEEE. He already had a limited collection of documents relating to the merger, and the locked display case purchased thanks to the Life Member Fund and installed in the IEEE's New York City offices housed this collection.[[265]](#footnote-265) The LMFC was now in the business of underwriting history.

The Life Member Fund played a key role in underwriting History Committee projects, because it had no budget at this early stage of its evolution. The Life Member Fund thus was the History Committee's primary source of funding until the establishment of the IEEE History Center in 1980 and the launch in 1985 of the Friends of the IEEE Center for the History of Electrical Engineering Committee as a committee of the IEEE Foundation (the Friends Fund for short). The Friends Fund received donations from IEEE members and non-members and underwrote History Committee projects.[[266]](#footnote-266)

By 1973, the LMFC was funding a number of historical activities in cooperation with the History Committee and the Smithsonian Institution, where Barney Finn had a summer history intern paid for by the Life Member Fund.[[267]](#footnote-267) Under the auspices of the Smithsonian Institution, one intern compiled an inventory of electrical collections in libraries and museums had been assembled during the summer of 1972 by a student in the history of technology.[[268]](#footnote-268) In 1974, a Smithsonian intern compiled a list of available collections of artifacts. The Smithsonian published and distributed the catalogs; the LMFC again made available a grant to pay for the graduate student.[[269]](#footnote-269)

Also in 1974, the LMFC approved funding for the Smithsonian Institution to make slideshows on the history of electrical engineering available for such audiences as IEEE Student Branches or prospective high school engineering candidates. The idea, discussed during the December 1973 meeting of the Society for the History of Technology (SHOT), was to develop four to six presentations each about 40 to 45 minutes long that would be of interest to engineers, students, and perhaps laymen as well. The slides would show interesting artifacts, pictures, or documents—mostly in the Smithsonian's collections—and an audio tape would contain a narration plus appropriate sounds of equipment. The Smithsonian Institution took on the burden of most of the costs, but hoped to find supplemental outside money.[[270]](#footnote-270)

From 1972, then, Finn had a graduate student at the Smithsonian working on the slideshows or the cataloguing project. LMFC funding for the two efforts continued into 1976 and by 1977, had become ongoing support for a summer program for graduate student study in the history of electrical technology at the Smithsonian Institution.[[271]](#footnote-271)

Fellowship.

In addition, by 1977, the LMFC, through the History Committee, and in particular James E. "Jim" Brittain, was becoming involved with Thomas Hughes, a professor at the University of Pennsylvania interested in the history of electrical engineering. Brittain was a critical member of the History Committee at the time. He and Finn were the historians on the committee; the other members were retired engineers.[[272]](#footnote-272)

Hughes proposed establishing a graduate fellowship in history. Upon learning of the "substantial funds at the disposal of" the History Committee (actually the Life Member Fund), Hughes suggested the "endowment of a graduate fellowship" in his department at the University of Pennsylvania. The fellowship would come up for renewal every two years. "It should be widely publicized as an IEEE Fellowship in the History of Technology at the University of Pennsylvania. We want to attract the high quality student who now comes into our History and Sociology of Science program here." Hughes thought it "imprudent to insist that a student commit himself or herself to the history of electrical technology and science as a prerequisite for the fellowship." Instead, he advised that the fellows would agree "to act as a research assistant in the history of electrical technology and science." He foresaw the fellowship student serving as his research assistant "as I continue to work on the comparative history of electric power systems (“The Age of Electricity”)."[[273]](#footnote-273)

John D. Ryder, Chairman of the History Committee and a former member of both the Board of Directors and Executive Committee, reviewed Hughes' proposal during the 1977 LMFC meeting. There was considerable discussion, most of which was favorable, and the committee eventually gave its unanimous approval.[[274]](#footnote-274) As approved, the fellowship differed appreciably from the form proposed by Hughes. The fellowship would be held for one year, and it would not be restricted to University of Pennsylvania graduate students. Indeed, the first recipient of the IEEE Life Members Graduate Study Fellowship in Electrical Engineering (for the 1978-1979 academic year) was a doctoral student at Stanford, Terry Kay Rockefeller. The selection of the fellow had been made by a committee named by the Chairman of the History Committee, Jim Brittain.[[275]](#footnote-275) The Life Member Fund subsequently supported the fellowship annually up to the present.

The History Committee also requested support for preserving IEEE archives in 1974. A variety of archival materials pertaining to the AIEE, the IRE, and the IEEE were stored throughout IEEE Headquarters in New York City, and these were in need of attention because certain headquarter operations were moving to new offices in New Jersey. The History Committee was responsible for all archives, but it lacked the funds needed to assume this cost. The LMFC recognized the need to preserve the archives and the necessity of hiring a professional consultant. The committee agreed to offer its guidance to the History Committee in preserving Headquarters archival materials and provided a grant to obtain professional assistance in the endeavor over a two-year period.[[276]](#footnote-276)

"Pioneers Still Living."

Oral history interviewing soon became one of the oldest historical activities underwritten by the LMFC. It eventually resulted in the publication of several books and the accumulation of numerous oral histories of major figures in the history of electricity and electrical engineering. The involvement of the LMFC began in 1973, when Frank Polkinghorn told the committee about his oral history project.

Polkinghorn, who had been an officer in the IRE, had a passion for history and was a member of the History Committee from 1971[[277]](#footnote-277) along with Julian Tebo, a retired employee of Bell Telephone Laboratories. They approached the History Committee with their oral history project in March 1973, when they already had completed four interviews. They recorded the interviews on "a standard home tape recorder" and incurred few costs, "consisting only of out-of-pocket expenses for tapes." The History Committee felt that the interviews were "eminently worthwhile," and although they discussed "getting typescripts made from the tapes," the committee concluded "that this expensive operation be deferred while concentrating on the more important matter of taping as many interviews of living pioneers as possible as soon as possible." The committee decided to request financial support from the Life Member Fund Committee.[[278]](#footnote-278)

With the blessing of the History Committee, Polkinghorn then told the LMFC about his project to tape record "pioneers still living" during their 1973 meeting. He requested "modest amounts of money to reimburse their out-of-pocket costs for tapes, phone calls, and short-distance traveling." The LMFC approved, and this became the first of many oral history projects carried out under the auspices of the IEEE and funded by the LMFC. By March 1974, a year into the project, Polkinghorn had collected, with volunteers' help, a dozen interviews. Support for this modest first step continued into 1975.[[279]](#footnote-279)

Some of the tapes, Polkinghorn reported, had "a rather high power hum," but all were "quite useable" and were stored at his home.[[280]](#footnote-280) The tapes, "for whatever reason," ended up at the Smithsonian for a while, Barney Finn recalled. The tapes were in need of transcription and indexing and had no signed release forms.[[281]](#footnote-281) The History Committee had no money for transcriptions. No proposal to fund transcriptions came up before the LMFC in 1977, 1978, or 1979. What had happened to the project? In 1983, Julian Tebo, now on the LMFC, brought up the old oral history project. He expressed concern about seeing the project die out and stated that he believed that the tapes were in the possession of the History Committee. He intended to investigate himself.[[282]](#footnote-282) Eventually, they were transcribed and became part of the rich collection of oral histories available through the IEEE, but not until the 1990s.

SOCIABILITY

In addition to history, education, and international standards, the Life Member Fund Committee focused on sociability. Initiatives were directed toward enhancing the social experiences of Life Members by creating social infrastructures (conference activities, member directory, newsletter). These activities concurrently facilitated social interactions among Life Members and promoted interest in Life Membership in the anticipation that more Life Members would be encouraged to contribute to the Life Member Fund.

The LMFC introduced an innovation at the 1968 International Convention held 18-21 March 1968 in New York City. All Life Members were invited to attend the conference as well as a cocktail party at no charge. Life Members were honored at the Directors Reception, and there was a morning Life Member Colloquium that was part of a special Life Member program.[[283]](#footnote-283) At the 1969 Directors Reception, the Chairman of the Life Member Committee, John Brainerd, outlined the purpose and objectives of the committee and introduced the Life Members attending the IEEE convention. Over 300 Life Members had registered. The success of this second year of the Life Member program determined whether the IEEE would continue it.[[284]](#footnote-284)

The LMFC annually met during the IEEE International Convention (INTERCON), during which the committee sponsored a hospitality suite and a morning coffee klatch, all vehicles intended to promote sociability. In 1972, the LMFC considered providing a list in the hospitality suite of fellow Life Members actually at the Convention along with the hotel the Life Member was staying at after his name. The LMFC continued to host Life Member activities at INTERCON until 1975, when the last one convened.[[285]](#footnote-285)

With the success of the hosted INTERCON Life Member activities and program, the LMFC began developing an analogous program for Life Members at WESCON, the Western Electronic Show and Convention, in 1972. If it was successful, the LMFC hoped to arrange similar activities at other regional meetings. The Life Member programs at the 1973 INTERCON and WESCON meetings went well and prompted plans to repeat them at future conventions. However, the first stab at implanting a Life Member program at the Northeast Electronics Research and Engineering Meeting (NEREM) failed to meet expectations. Beginning in 1976, INTERCON and NEREM combined and alternated between New York City and Boston as ELECTRO.[[286]](#footnote-286)

Following the successful Life Member programs and activities at ELECTRO '77, in 1978 the LMFC added MIDCON, a new regional conference started in 1977 and located in the Midwest. As a result, in 1979, the LMFC supported activities at three regional conventions: ELECTRO '79, WESCON '79, and MIDCON '79. In addition, at the request of Jim Brittain (History Committee), the LMFC funded a session commemorating the 100th anniversary of Thomas A. Edison's invention of the incandescent light at ELECTRO '79. The funding covered travel expenses for the historians of technology who presented papers. WESCON '79 also featured its own Life Member Historical Session chaired by Palmer Craig, a former IRE officer. Then, in 1980, the LMFC added the newly established SOUTHEASTCON to the conferences with Life Member activities.[[287]](#footnote-287)

Life Member Directory.

Just as providing a list of Life Members attending a convention facilitated social interaction among Life Members, so did the provision of a membership directory. The directory began rather unassumingly in 1972 at the suggestion of a Life Member who was not on the LMFC. Thomas A. Abbott proposed that the names and addresses of IEEE Life Members be made available to all Life Members. The LMFC perceived that such a list—arranged either alphabetically or by Region—could be sent to contributors to the Life Member Fund as a token of appreciation for their gifts, and the Life Member Fund could bear the cost as a promotional expense.[[288]](#footnote-288) As conceived initially, then, the membership list would have the dual purpose of facilitating sociability among Life Members and encouraging Life Members to contribute to the Life Member Fund.

Consequently, the Life Member Yearbook, as it was called, was mailed in late 1972 to all contributors to the Life Member Fund. A second Yearbook went out in December 1973. With the 1974 edition, it became the Life Member Directory. One of the innovations introduced in the 1977 directory was a listing of all amateur radio (ham) operators who provided their call letters. The question of whether the LMFC should issue the directory annually or every other year came up, and the committee decided to put the question to the Life Members. The Chairman's letter, which was part of the directory, asked members to indicate their preference on a return card included with the mailing. As a result, with the 1979 edition, the directory appeared biannually.[[289]](#footnote-289)

Newsletter.

Like the directory, the Life Member newsletter promoted sociability and communication among Life Members. It also promoted the Life Member Fund and encouraged Life Members to contribute. In fact, the newsletter grew out of an annual letter mailed to Life Members essentially asking for contributions to the Life Member Fund accompanied by a statement that included the uses of the fund. This letter and statement were as old as the committee itself.

As noted above, in 1948, the Committee on Members-for-Life Fund drew up and published in *Electrical Engineering* a statement on the use of the fund. Thereafter, the committee mailed copies of this statement to each new Member for Life with the official notification that he had reached that status along with a specially designed card.[[290]](#footnote-290) The *Electrical Engineering* statement explained that "a fair proportion" of Members for Life continued to pay dues which "now accumulated in a restricted fund. The appropriations from this fund are directed toward objectives recommended by the Members-for-Life committee as approved by AIEE board of directors."[[291]](#footnote-291)

In 1952, the Committee on Members-for-Life Fund again turned to the publication of an article in *Electrical Engineering* discussing the fund and its uses, but taking care "to avoid the appearance of a direct solicitation of dues payments from Members-for-Life, all of whom are entitled to exemption from dues.[[292]](#footnote-292) The regular publication of new Members for Life in *Electrical Engineering* also promoted the fund and encouraged Members for Life to contribute.[[293]](#footnote-293)

Following the merger, a description of the fund's uses continued to form part of the annual request for contributions. In 1967, the committee commissioned the drafting of a new statement. The LMFC decided in 1969 that the donation request should be mailed in early November, rather than at Thanksgiving time as in the past. Again, it was important that the request not suggest that the contribution was in lieu of dues or was linked in any way with dues.[[294]](#footnote-294)

The annual mailing soon morphed into the Life Member Fund Report. It thanked Life Members for their generous contributions and outlined the worthy projects made possible by the fund.[[295]](#footnote-295) At its 1972 meeting, the LMFC voted to turn the report into a four-page newsletter, which solicited funds and brought news about the projects supported by the fund. It also linked Life Members to the LMFC and, mailed along with the list of Life Members, promoted sociability among Life Members, "to help them keep in touch with former colleagues."[[296]](#footnote-296) The pairing of the four-page newsletter and membership list continued through 1973 and 1974.[[297]](#footnote-297) The newsletter subsequently continued as an annual "promotion" expense "for obtaining contributions to the Life Member Fund" continued annually until 1978, when two issues began to appear each year in the Spring and Fall.[[298]](#footnote-298)

BIG HISTORY

The scale of the history activities underwritten by the Life Member Fund mushroomed following the establishment in 1980 of the IEEE History Center for the History of Electrical Engineering in the IEEE's New York City offices.[[299]](#footnote-299) The commemoration of IEEE's centennial in 1984 provided a further boost to the mushrooming number of activities supported by the Life Member Fund. The LMFC continued to work with the History Committee as well as the Smithsonian Institution, but the summer internship shifted from the Smithsonian to the new History Center. The LMFC added a new history prize to its growing program of supported activities, which brought the LMFC closer to the historians of the Society for the History of Technology (SHOT). On top of its program of regular, ongoing activities (the education medal, the student contest prizes, the history fellowship, for instance), the LMFC began reviewing a not insignificant number of "special projects," that is, proposals for activities of finite duration that required "special funding."

The Life Member Fund Committee itself also underwent some equally profound changes. Since 1975, one of its members was appointed by the IEEE Foundation, which now received Life Members' contributions. The LMFC was now a committee of both the IEEE and the Foundation.[[300]](#footnote-300) Coming under the direction of the Foundation would have as profound an impact on the LMFC as the establishment of the History Center had on the History Committee.

Until 1979, the Smithsonian Institution Summer Program for Graduate Study remained rather active, but in 1980, after reviewing requests for funding, the LMFC decided not to support the program that year.[[301]](#footnote-301) Subsequently, in 1981, Barney Finn (then a member of the History Committee) requested that the LMFC "reinstitute" the Summer Program for Graduate Study in order to have a graduate student update the inventory of electrical collections in libraries and museums that a graduate student had assembled during the summer of 1972. The LMFC approved.[[302]](#footnote-302)

The updating of the guide to electrical collections in libraries and museums, known as the Survey of Archives and Manuscript Collections Relating to Electrical Science and Technology (SAMCREST), became one of the first projects carried out by the newly-founded IEEE History Center. The graduate student had the flexibility of working at the History Center or at the Smithsonian.[[303]](#footnote-303) This marked the moment when the summer internship shifted from the Smithsonian to the History Center, where it continues today still underwritten by the Life Member Fund.

Collaboration with the History Center and the History Committee also led to the founding of the IEEE Life Members Prize in Electrical History. In 1985, Thomas J. Aprille, Jr., suggested to his fellow History Committee members that they establish an annual award for the best paper in electrical history. Ronald Kline, the History Center director, proposed that the committee establish selection criteria for an award that would be administered by SHOT. Finn questioned whether SHOT would want to administer an award that was likely to lead to more awards being created for specific fields. Erwin Tomash thought that turning to SHOT might narrow the field of candidates to authors who published in *Technology and Culture*, SHOT's journal. Harold Chestnut raised the question of whether papers written in languages other than English would be eligible. The committee named a subcommittee—Aprille, Chestnut, and Tomash—to draw up plans for the award and to negotiate with SHOT. Kline was asked to bring up the subject at the 1985 SHOT meeting.[[304]](#footnote-304)

In 1986, Howard B. Hamilton, the Chairman of the History Committee, requested funds from the LMFC for an “IEEE Life Member Prize in Electrical History.” Consisting of $500 and a certificate, the prize would go to the author of "the best paper on the history of electrical and electronics engineering published in English in any learned journal or magazine in the past year." The phrase "in English" was dropped later.[[305]](#footnote-305) The LMFC would underwrite the prize annually, but SHOT would administer it and determine the winner. Both the History Committee and the History Center were to monitor the award periodically on behalf of the Life Member Fund. The LMFC unanimously approved the prize "in view of promoting the writing of more and better histories of electrical and electronics engineering" starting in 1987. The History Committee worked out the details of the agreement with SHOT, and in 1987, the IEEE Life Members Prize in Electrical History was awarded for the first time. A team consisting of History Committee members Jim Brittain, Hugh G. J. Aitken, and Barney Finn selected the winning article.[[306]](#footnote-306)

The Centennial.

The upcoming 1984 IEEE centennial celebration boosted significantly the number and size of history-related projects funded by the LMFC. In 1975, to prepare well in advance, the committee set up a special IEEE 100th Anniversary Fund consisting eventually of $25,000.[[307]](#footnote-307)

The first earmarked use of the Anniversary Fund appropriately was for a history of the IEEE. John D. Ryder, Chairman of the Centennial Task Force, told the LMFC that the IEEE Centennial Task Force had contracted with a professional historian, A. Michael McMahon, to produce "a scholarly history of the field of electrical engineering and the Institute." The IEEE Press published it in 1984 as McMahon's *The Making of a Profession*. Ryder and Donald G. Fink, a long-time member of the IRE and IEEE, proposed to edit a shortened version of that book, "which will hopefully have popular appeal to those who do not want an in-depth history." The LMFC supported the project, which received additional money from the IEEE Press.[[308]](#footnote-308) However, when it appeared in 1984 as Ryder and Fink, *Engineers & Electrons*, it was a completely different book than the one authored by McMahon.[[309]](#footnote-309)

In 1984, the LMFC approved support for the IEEE Centennial Technical Convocation held in Philadelphia at the Franklin Institute in October 1984, which featured Nobel laureates and other luminaries.[[310]](#footnote-310) Between the Convocation and *Engineers & Electrons*, the only disbursements made up until then, the Anniversary Fund was nearly depleted.[[311]](#footnote-311) Yet, more proposals came forward. Donald S. Brereton, the IEEE Centennial Coordinator, appeared before the committee with a proposal from the Centennial Task Force for a booklet of centennial-related articles that already had appeared in *Spectrum*. He explained that the centennial funds allocated by the IEEE Board of Directors were exhausted after having underwritten so many worthwhile projects. In particular, he highlighted the movie “The Miracle Force” narrated by Orson Welles. The Centennial Task Force now was looking for funding for its remaining projects from other sources. One such needy project was the publication of centennial-themed articles from *Spectrum*.[[312]](#footnote-312)

IEEE President Richard J. Gowen also addressed the Committee in support of publishing the *Spectrum* articles. He argued that the project was appropriate for the Life Member Fund "since it has a very strong historical background." Julian Tebo, LMFC Chairman, asked Gowen if it were possible for the money to come out of the General Fund. He replied that centennial activities already had eaten into the General Fund.[[313]](#footnote-313)

The LMFC discussed the proposal at length. Some members thought that articles from the IEEE *Proceedings* ought to be included, while others pointed out that the articles would be "very difficult to understand" and would be inappropriate for the anticipated audience, which included congressmen. It was important that the LMFC not purchase a "coffee table" book "that no one can understand." Before reaching a decision, the committee wanted a tentative list of topics to be covered in the book and consideration of articles from the *Proceedings*.[[314]](#footnote-314)

The LMFC took up the book proposal again during its April 1985 meeting. Committee members expressed a number of sharply negative views about the project. The book was "more of a show piece," because the articles had been published previously. The choice of articles was uneven; some selections were not worth reading. The items suggested for the book were "not of the caliber to justify bringing them together." A poll of the members found six out of eight not in favor of the project, with one member abstaining.[[315]](#footnote-315)

Instead, the LMFC spent the last of the Anniversary Funds on the publication of a booklet titled “Generation of Giants." Modeled after the “A Century of Electricals,”[[316]](#footnote-316) released in 1984 as part of the centennial, the booklet consisted of the script and some of the illustrations used in the presentation “Generation of Giants” given in May 1984 during the Centennial Convocation in Boston. The Anniversary Funds covered the booklet's publication expenses, but not the cost of mailing them to Life Members requesting copies, so the LMFC covered the balance from the Life Member Fund.[[317]](#footnote-317)

Special Projects.

Following the centennial, the Life Member Fund Committee began to consider projects that required "special funding." These proposals requested backing for activities of finite duration. A special project differed from a program, a long-term continuous activity that had no defined termination point, such as the student paper contest prizes, and a project, which also lasted multiple years, but had a defined termination point. Special projects did not fit into any one category of activity, but in one way or another related to the history of electrical engineering. From 1987, the History Committee played a central role in vetting these and other history-related proposals for Life Member Fund support, and in 1992, the History Committee recommended that the History Center comment on LMFC proposals coming from outside the IEEE.[[318]](#footnote-318)

Among the special projects subsidized by the Life Member Fund was the publication of history-oriented articles in *Spectrum*. Recommended by Ivan S. Coggeshall (History Committee), the two articles were "of broad IEEE historic importance" and marked different anniversaries. One, written by Ernst Weber, the first IEEE President, was to commemorate the 25th anniversary of the founding of the IEEE in January 1988. The other, by Donald Christiansen, editor and publisher of *Spectrum*, marked the 25th anniversary in January 1989 of the first appearance of *Spectrum*.[[319]](#footnote-319) Subsequently, the committee approved the payment of publication costs (shared with the Foundation)[[320]](#footnote-320) for an article, “Innovative Genius," that appeared in *Spectrum* in 1991.[[321]](#footnote-321)

The wave of proposals for special funding that came in starting in 1986 included a donation toward a statue of TV pioneer Philo T. Farnsworth to be place in the Statuary Hall of the U.S. Capitol building (now in the Capitol Visitor Center), restoration of an original 1880 Edison dynamo in the University of Wisconsin's collection, the restoration of a historic SCR-270 radar trailer and antenna owned by the Historical Electronics Museum (now the National Electronics Museum) outside Baltimore, and oral history interviews of Marvin Camras, an electrical engineer and inventor of magnetic recording devices.[[322]](#footnote-322)

Another such special project involved the Smithsonian Institution. In 1983, the LMFC supported a summer graduate student who surveyed artifacts donated by Texas Instruments to the Smithsonian. The student's survey had resulted in a Smithsonian exhibit on the history on microelectronics.[[323]](#footnote-323) Now the LMFC was funding a search for objects central to the history of microelectronics based on a proposal made by Barney Finn to the History Committee in October 1986. The director of the History Center, Ronald Kline, explained to the LMFC that the money was needed to employ "a knowledgeable historian" to work with a representative of Texas Instruments to evaluate, document, and catalog the donated artifacts, to develop a final project report, and to defray travel expenses for Finn, as project supervisor, and the researcher, Elliot Sivowitch, a specialist in electronics at the National Museum of American History.[[324]](#footnote-324)

Another special project was the first to come from one of the IEEE member societies: the Microwave Theory and Techniques Society (MTT-S). The MTT Society requested funding to publish an exhibit catalog. For the Hertz Centennial in 1988, the MTT Society had collected some of Hertz's original equipment and displayed it during its International Microwave Symposium in New York City in May 1988. The catalog, like the exhibit, presented Hertz's experiments in chronological order and in some detail.[[325]](#footnote-325)

REACHING OUT

After the merger, the pursuits of the Life Member Fund Committee were aimed at electrical engineering students (the Student Prize Paper Awards), electrical engineering educators (the IEEE Education Medal), and Life Members (conference activities, membership directory, the newsletter). During the 1980s, as the IEEE was celebrating its centennial, the LMFC reached out to civic groups and high school students, but passed on a proposal aimed at elementary schools, as the committee encouraged new ways to promote the engineering profession.

Life Member Speaker Bureau.

In 1984 and 1985, the LMFC flirted with the idea of setting up a Life Member Speaker Bureau. The proposal had come from Harry Kihn, a pioneer in color television at RCA Laboratories in Princeton who had joined the Life Member Fund Committee in 1981. After an absence of a couple years, Kihn returned to LMFC membership in 1989[[326]](#footnote-326) armed with a new idea: an IEEE narrated slide presentation for use by Life Members speaking to civic groups and high schools. The slides, donated by various IEEE Societies, would describe the disciplines of those societies. Kihn pointed out that the project could make Life Member speakers feel that they are contributing to Life Member activities and enhancing their stature in the community, and it would inform the community about the accomplishments of electrical engineers. Chairman Anthony B. "Tony" Giordano advised operating the Life Member Speakers Program on a trial basis to determine Life Members' level of participation as speakers, how IEEE societies would contribute, and a process for distribution to membership.[[327]](#footnote-327)

Kihn then took his idea to the chairman of the Princeton Section, Benjamin Epstein (David Sarnoff Research Center), who contacted several Princeton Life Members and requesting their participation. The Princeton Section then voted to integrate the project into their chapter activities for 1991-1992. Kihn drafted a letter to his fellow Princeton Section Life Members inviting them to participate, and the Life Member Fund Committee provided funds for mailing it to all Life Members in the Princeton Section. The mailing received over 100 positive responses.[[328]](#footnote-328)

The success of the Princeton experiment led Kihn to present a short report summarizing his activities before the Technical Activities Board during their 1992 meeting in Sparks, Nevada. That Board felt that the speakers program should be placed within each Society's history committee as well as locally with the Sections. The LMFC approved funds to support a Life Members Speakers Program at the local (Section) level "to promote the benefits of Engineering."[[329]](#footnote-329)

"The Miracle Force."

While the Life Member Speakers Program reached out to civic groups and high schools, Experimental Amateur Radio aimed exclusively at students in middle and high schools. The two-year Experimental Amateur Radio Presentations by Life Members Project provided school children with hands-on ham radio experience in 1987 and 1988.[[330]](#footnote-330)

A longer-term project aimed at high school students was the videocassette distribution of the movie "The Miracle Force" to middle schools and high schools. Narrated by Orson Welles, this 28-minute movie consisted of a series of interviews with engineers who spoke about his or her work in the fields of power, communications, astronautics, computers, and biomedical sciences. Underwritten by the IEEE Centennial Task Force, the movie attempted to answer the question: "What is an engineer?" The original target audience was the general public, and the IEEE saw its distribution through television and other channels. Although produced for the centennial, "The Miracle Force" made no mention of that fact, so that it could be shown for several years.[[331]](#footnote-331)

The LMFC began underwriting videocassette distribution of "The Miracle Force" to secondary schools in 1986.[[332]](#footnote-332) Although budgeted, the funds went unspent while the movie underwent an unplanned edit to remove the segment that dealt with the *Challenger* Space Shuttle which had exploded shortly after takeoff in January 1986. As a result, “The Miracle Force” was not ready for distribution until 1988, when the LMFC raised the funding allotted to the project to enable the IEEE Public Relations Department to produce 150 videocassettes.[[333]](#footnote-333) A second grant in 1990 supported the distribution of 200 videocassettes to schools.[[334]](#footnote-334) Another grant extended distribution of the 200 tapes through to the end of 1992, the last year the LMFC supported the project. Meanwhile, the movie underwent another updating. Each year, the videos went out to over 1,500 schools.[[335]](#footnote-335)

Meanwhile, in 1990, the LMFC also underwrote a two-year effort administered by IEEE Public Relations and carried out by the Naidus Group, Inc., to develop an “Educator’s Discussion Package” to accompany “The Miracle Force.” The intent of the teacher materials was to stimulate classroom discussion and activity after viewing the movie. As with the movie, the goals were to attempt to direct students towards a career in engineering and to enhance their understanding of engineering and its contributions to society.[[336]](#footnote-336)

Not seeing STARs.

While the LMFC embraced distribution of "The Miracle Force" videocassettes and made it a success, the committee passed on an opportunity to reach out to elementary schools. They were not the only ones in the IEEE with a disinterest in the proposal.

The project, known as Science and Technology Activities Room (STAR), was the subject of a full-page piece in the Spring/Summer 1988 issue of the Life Member newsletter. There John Coolidge, a Life Member in the Boise Section, described how his Section was about to promote the STAR program in the Boise area. The goal of STAR was to provide elementary school students with hands-on experience in science fundamentals by participating in experiments designed to complement their classroom learning. The STAR program relied on the cooperation of parents—who provided the equipment and facilities—and the school district, which supplied the room and the teacher.[[337]](#footnote-337)

The Life Member Fund Committee took up Coolidge's proposal during its April 1988 meeting. Some members voiced concern that elementary school students might be too young to benefit from the program. After some discussion, the committee recommended submitting the proposal to the Regional Activities Board and the Technical Activities Board for their opinion. The two boards both declined to support the project "due to the vast financial support required to maintain STAR."[[338]](#footnote-338) The project was a dead letter.

OLDER MEMBERS

Just as the Life Member Fund Committee turned toward civic organizations and secondary school students during the 1980s, the committee also focused on what were termed older IEEE members who were not Life Members. Already in 1971, as we saw above, the committee successfully changed its charter, so that it would consider "suggestions from Institute members regarding activities of interest to older members and shall make recommendations to the Executive Committee of the Board of Directors respecting such activities."[[339]](#footnote-339)

At the same time, they proposed changing the eligibility requirements for life membership. The current bylaws required members to have reached age 65 and to have paid dues for at least 35 years or to be 70 and have been a member for 30 years. The Committee recommended awarding life membership to those who were 65 year old "and the sum of whose age and years of membership in the IEEE total one hundred." Also, student membership years would count toward one's years of membership, in accordance with the recommendation of the Regional Activities Board. The Executive Committee had an appropriate bylaw revision drawn up, which the Board of Directors approved in August 1971, to be effective 1 January 1972.[[340]](#footnote-340)

Beginning in 1980, the LMFC began extending its social infrastructure (conference activities, member directory, newsletter) beyond just Life Members. In 1980, half of the IEEE members aged 65 or older were Life Members; the other half were not.[[341]](#footnote-341) The committee's charter, revised in 1980 to include the LMFC as a committee of the IEEE Foundation, specified that the committee would "consider suggestions from IEEE members regarding activities of interest to older members," but did not stipulate who was an "older member."[[342]](#footnote-342) This commitment to older IEEE members remains in the committee's charter today.[[343]](#footnote-343) Some committee members felt that there ought to be an alternative term to "older member." The LMFC solicited suggestions in the Spring/Summer 1988 issue of the newsletter, but received only a few responses.[[344]](#footnote-344) "Older members" stuck.

Newsletter.

The Life Member Fund newsletter began going to all IEEE members aged 65 and above in 1980. LMFC members saw this group as consisting of their "peers and contemporaries." It was "unwise to leave them out of communication for several years until they become Life Members. The Newsletter will strengthen their connection with the Institute and with the Life Members and help sustain their interest in this interim. We feel that an active interest in the Institute by all retirees is a definite asset to the Institute." The committee therefore voted to recommend to the Executive Committee that the newsletter be distributed to all IEEE members 65 years of age and over. The Life Member Fund would provide the necessary funds, if the Executive Committee agreed, starting with the November 1980 issue. Also, that initial issue would make it clear that receiving the newsletter did not mean that the recipient was automatically a Life Member.[[345]](#footnote-345)

A 1983 attempt to lower the newsletter recipient age to 62 met with failure. But, when the proposal came up again in 1986, it passed with the proviso that the extra cost could not exceed $3,000. A study of the added cost resulted in the expanded distribution receiving a green light.[[346]](#footnote-346)

Directory.

The Life Member Directory equally expanded to encompass all IEEE members aged 65 and older. The proposal came from Edwin Harder, the new Chairman of the LMFC, in 1980. The LMFC agreed and would furnish the funding, provided the Executive Committee gave its approval. The rationale for the proposal, the LMFC explained to the Executive Committee, was "that improved continuing communication among all older members is a service to them and particularly needed as they retire from active participation. It is something the IEEE can do for its older members to sustain their interest and involvement."[[347]](#footnote-347)

Armed with the approval of the Executive Committee, starting in 1981, the Life Member Directory included both Life Members and members 65 years of age and over, the latter also being eligible to receive a copy. The cost was "slightly higher" than anticipated. At the suggestion of the LMFC, the directory was color-coded to differentiate between Life Members and other members. The directory, moreover, contained bylaw information on qualifications for both life membership and Retired Member status.[[348]](#footnote-348)

Subsequently, the cost of printing and mailing the directory rose higher and higher. By 1985, it had become the Life Member Fund's largest budget item. A committee member suggested that: "the money could be used to support more worthwhile projects." On the other hand, it was "a valuable source for Life Members in contacting their IEEE colleagues."[[349]](#footnote-349) The directory continued to be printed until 1992, a financially difficult year for the Life Member Fund. By then the need for the directory had become obsolete, the committee believed, because the Sections had the same information on the Membership Data Diskette Program.[[350]](#footnote-350) Subsequently, technological advances again obviated the need for a directory in 1998, when the question of resurrecting the directory arose. There were few requests for the directory, and the SAMIEEE program now contained member information arranged by Section, so that lists of Life Members within a Section were readily available.[[351]](#footnote-351)

Lunch?

Inviting older IEEE members to the Life Member luncheons and technical sessions hosted by the LMFC was less of a success than the newsletter or directory. In 1980, Chairman Edwin Harder suggested that the Life Member Fund Committee recommend to the Executive Committee inviting all members 65 years of age and over to specific Life Member activities at IEEE-sponsored conferences. These activities were provided free of charge by ELECTRO, WESCON, and MIDCON. The Life Member Fund Committee had no control over the conferences, but voted funds for those activities. ELECTRO ‘80 provided a hospitality room, free registration, a special session, and a luncheon. Harder argued that it would be good to invite non-Life Members aged 65 or more to the Life Member hospitality room, the special session, and the luncheon, and the cost would be minor. The committee discussed the proposal, but took no action.[[352]](#footnote-352)

In 1981, Chairman Harder again proposed inviting all older members to all four 1982 regional conventions: ELECTRO, MIDCON, WESCON, and SOUTHCON. The LMFC discussed inviting them to the Life Member Luncheon. Two members objected, because the luncheon was something that the IEEE did specifically for Life Members, and they believed that it should remain that way. The committee, though, did okay inviting all “retired” members 65 and over to the Life Member hospitality suite and special session and agreed to discuss including them in the Life Member Luncheon at next year’s meeting.[[353]](#footnote-353)

The following year, Harder reiterated his proposal to invite all older IEEE members to the Life Member luncheon. One member maintained his objection, but this time he felt that the LMFC should adopt a policy before first contacting the convention organizers. Chairman Joseph F. Keithley agreed to develop a suitable approach that the LMFC would review before contacting the organizers or the chairs of the Life Member conference activities.[[354]](#footnote-354) Then, in 1983, the committee voted to support the attendance of IEEE members over 65 to the Life Member luncheon and technical session at ELECTRO 83 as a one-time experiment.[[355]](#footnote-355) The cost, however, ended up being "quite high," and the LMFC subsequently decided that the luncheon henceforth would be limited to Life Members.[[356]](#footnote-356) As Harder wrote to Richard Gowen, IEEE Centennial President, in 1984, "The inviting of non-Lifers to the Life Member sessions and Luncheons at conventions has been much discussed, and was tried at Electro-83. It is not a good idea. But there should be some program for all older members. This problem is still unsolved."[[357]](#footnote-357)

The Older Members Activities Subcommittee.

The Life Member Fund Committee considered additional ways to address the needs and interests of older IEEE members. In 1982, for instance, Chairman Harder discussed various ways to involve them in IEEE activities. One possibility was a survey to find out more about what they were doing and what they would like to do in the Sections and in the rest of the IEEE. Also, the History Committee could inform the Sections about the history activities that were coming up each year, and in turn these could be related to the older members. Harder also proposed establishing a task force, because the LMFC was chartered to consider activities of interest to older members.[[358]](#footnote-358)

In 1983, the LMFC considered developing a method for notifying older members when they would become eligible for life membership. Chairman Joseph F. Keithley charged Harder, assisted by Julian Tebo, with drafting a letter to the Board of Directors that would recommend a plan for resolving the issue. The LMFC also voted to form an "older member subcommittee," consisting of Harder and Tebo that also would recommend "programs of interest to older members" to the LMFC which, if feasible, would approve and fund those activities.[[359]](#footnote-359)

The first proposal considered by the Older Members Activities Subcommittee came from Thelma Estrin, a Life Member who had served on several IEEE boards and committees (including the Executive Committee and other management positions) and who joined the LMFC in 1985.[[360]](#footnote-360) Estrin suggested establishing an award for the contributions of older IEEE members. The LMFC forwarded her suggestion to the IEEE Awards Board,[[361]](#footnote-361) but the proposal appears to have gone nowhere.

Harder's 1982 suggested survey of older members came to fruition through the Older Members Activities Subcommittee. Financed by the Pittsburgh Section, the survey queried older Section members as well as 50 members who had been corresponding with Harder regarding life membership and ideas for activities. The survey received 107 replies out of 375 questionnaires mailed out. The LMFC discussed several of the survey suggestions.[[362]](#footnote-362) They rejected the proposal to piggyback a national member survey on the Life Member newsletter. However, they did recommend including a brief summary of the Pittsburgh survey results in the newsletter along with an offer to furnish the complete survey to any Section that wanted it or that wished to run a similar survey in their own Section.[[363]](#footnote-363)

Starting in 1984, the idea that older member activities and programs should be the responsibility of the Regional Activities Board began to take hold. Harder believed that these activities should be with the Sections. Only a small number of older members attended national meetings, because for the most part, they were retired and did not have expense accounts to assist with travel expenses.[[364]](#footnote-364) From that perspective, local Sections made more sense. Harder offered as an example what the older members of the Pittsburgh Section had done over the past three years. That Section, moreover, was considering the publication of a booklet, “Pittsburgh Electrical Pioneers,” comprising some 28 individuals who were older members.[[365]](#footnote-365)

The LMFC then voted to send a recommendation to IEEE President Richard Gowen that older member activities and programs in the Sections be made the responsibility of the Regional Activities Board, which could generate programs for older members through the Sections. Gowen in turn referred the proposal to the Chairman of the Regional Activities Board for review and comment.[[366]](#footnote-366)

The Regional Activities Board did not give its approval. It was now up to the LMFC to set up programs for older members. Harder advised no immediate action other than to continue to place suggestions and letters in the Life Member newsletter. The Regional Activities Board, however, had offered to assist in implementing older member projects approved by the LMFC.[[367]](#footnote-367)

In 1986, Edwin Harder, the only member of the Older Members Activities Subcommittee, stepped down and Robert F. Lawrence took his place.[[368]](#footnote-368) Meanwhile, older member activities were taking off in the Regions and Sections. In 1987, for example, in Region 2 (which included the Pittsburgh Section), Horst W. A. Gerlach, Chairman of the Region 2 Older EE Member’s Activities Committee, submitted a draft charter to the LMFC.[[369]](#footnote-369) The following year, Joseph M. DeSalvo, Director of Region 2, sent the LMFC a questionnaire that had been circulated regarding older member activities.[[370]](#footnote-370) The results indicated that older members were interested in remaining involved in IEEE activities, and many volunteered to assist in projects. The Regional Activities Board Priorities and Planning Committee, whose chairman at the time was Joseph DeSalvo, was engaged in projects for older members,[[371]](#footnote-371) including the compilation of a list of senior activities in regions, councils, and sections.[[372]](#footnote-372)

As the Regional Activities Board took up older member activities, the Life Member Fund Committee considered promoting older member activities through involvement in the 1990 Sections Congress to be held in Toronto.[[373]](#footnote-373) This was a first step toward organizing Life Member activities and groups within IEEE Sections.

BIGGER AND MORE ACTIVE

Over the years, the size of the Life Member Fund Committee grew and grew. It had eight members, the minimal committee composition, from 1963 until 1973, when its membership rose to thirteen, and in 1978 rose to fourteen for the first time and stood at eighteen in 1987, a size it has not equaled since.[[374]](#footnote-374) The 1984 Review Committee for the LMFC suggested that the committee should continue to have fourteen members, "so that a minimum of eight will make the meetings." They also recommended that the LMFC meet twice a year. In 1984, the committee met twice for the first time and continued to do so, once during ELECTRO and again in the Fall. The Review Committee also suggested that the LMFC provide members "an appropriate amount of expense for travel." Committee members were retired and did not have company expense accounts, while other IEEE committees provided support for members to attend meetings. So, in 1985, the LMFC agreed to reimburse members' reasonable travel expenses, after turning down the request repeatedly since 1979.[[375]](#footnote-375)

The Life Member Fund was now a committee of both the IEEE and the Foundation, and the Board of Directors and Foundation each appointed at least one representative as a committee member. At least four of the eight members had to be contributors to the Life Member Fund. The LMFC administered the Life Member Fund, which was carried on the accounts of the IEEE, consisting of prior Life Members' donations, and the accounts of the Foundation, composed of prior and future Life Members' contributions.[[376]](#footnote-376)

Despite the growth of the LMFC into a larger, more complex entity, its members appear to have resisted creating certain formal structures, at least initially. One of recommendation of the 1984 IEEE Review was to establish a Charter and Policies and Procedures Manual. The LMFC, however, concluded that there was no need to draft these: the committee wished to function with "a minimum of formality."[[377]](#footnote-377)

Nonetheless, the committee did name ad hoc subcommittees for a number of purposes relevant to its mission. By 1983, it began considering formal ways of assessing proposals to deal with "the large amount of [Life Member Fund] income versus the amount spent on projects."[[378]](#footnote-378) Edwin Harder had outlined explicit criteria for selecting new projects for funding in 1977,[[379]](#footnote-379) and the LMFC published guidelines in the November 1978 issue of its newsletter.[[380]](#footnote-380) However, the imbalance between income and spending in 1983 seemed to call for a new look at how the committee selected projects. Harder proposed forming a task force to study proposed projects that would be worthy of support from the Life Member Fund.[[381]](#footnote-381)

The task force, known as the Subcommittee on Improved Utilization of Revenue, consisted of John G. Brainerd (Chairman), Truman S. Gray, and Harry S. Kihn.[[382]](#footnote-382) Brainerd called attention to the major issue faced by the subcommittee: "a lack of sufficient innovative applications."[[383]](#footnote-383) The number of requests needed to run considerably higher to have a good distribution of Life Member Fund money. The subcommittee felt that one way of achieving this goal was to set up a Life Member Fund Foundation to advertise the availability of the funds (perhaps in *Spectrum* or *The Institute*) to generate more proposals as well as to sift through proposals to decide which ones were worth further consideration. Chairman Julian Tebo pointed out the danger of confusion with the IEEE Foundation that would result. Brainerd conceded that it could be given a different name. The LMFC approved drafting an announcement about the availability of LMF money for use in drawing the attention of those "individuals who might have good ideas, but are not aware that the LMF money exists."[[384]](#footnote-384)

The draft included a statement of Life Member Fund Funding Goals developed specifically as a basis for the announcement. However, there was division at the 1985 LMFC meeting over how to generate more proposals: placing announcements in *Spectrum* and *The Institute* versus asking Life Members first. As a compromise, Harder suggested drafting an article for the newsletter that listed what the Committee had done, stated that it was looking for new ideas, and set forth guidelines for using the funds based on the LMF Funding Goals statement. Because the newsletter now reached both older members and Life Members, it was felt that this would be a first positive step in generating fresh proposals. The committee agreed to proceed in this direction.[[385]](#footnote-385)

In response, Life Members submitted eight "ideas requiring special funding," one of which was for "Annual Grant from LMF to Support Travel Expenses of IEEE Member Experts to Attend Overseas Standards Meetings to Represent U.S.A. Positions." The LMFC chose to discuss only two of them: the Foothill Electronics Museum, located in Los Altos Hill, California, and operated by the Perham Foundation, and the New England Electric Railway Historical Society in Kennebunkport, Maine.[[386]](#footnote-386)

The results of the experiment were not encouraging. Most of the proposals seemed to show no understanding of the guidelines laid out in the newsletter. "Concern" over the proposals' content led the LMFC to create "a mechanism . . . to review Incoming proposals, prior to formal submission to the LMFC." Chairman Tebo appointed John C. McPherson and Edward W. Herold to be an Ad Hoc Committee to Review Proposals Requiring Special Funding.[[387]](#footnote-387)

They in turns produced "A Proposed Set of Guidelines for IEEE Life Member Fund Expenditures" that attempted to distinguish the objectives of the LMF from those of the IEEE Foundation as well as from those of other committees, such as the Friends of the History Committee. Above all else, the LMFC agreed that whatever the Life Member Fund supported would be in the interest of Life Members. Chairman Tebo then appointed a task force to draft an article for the Spring 1987 newsletter to elicit input from Life Members on the direction the LMFC should take in allocating LMF funds.[[388]](#footnote-388)

The LMFC reviewed the report, “Results of the Life Member Query and Proposed Guidelines,” during its October 1987 meeting. Chairman William W. Terry appointed a subcommittee to draft definitive guidelines based on the results of the survey, and the LMFC unanimously accepted the guidelines at their Spring 1988 meeting.[[389]](#footnote-389)

FROM TOO LITTLE TO TOO MUCH

During the latter part of the 1980s, the Life Member Fund Committee struggled with a lack of sufficient proposals and a resulting excess amount of unspent revenue. For that reason, the LMFC had created the Guidelines for IEEE Life Member Fund Expenditures. The guidelines, though, did not prevent what lay in the near future. By 1992, the LMFC was approving disbursals of more money than the Life Member Fund was earning. The result was a draconian cut in both ongoing programs and special projects.

As the LMFC reviewed 1991 finances during its April 1992 meeting, Chairman Robert Lawrence noted that in recent years the LMFC had become more active and had spent more money. Expected 1991 income from contributions was exceedingly low because of the delay in the approval process for the solicitation packet. The committee realized that it had been exceeding its budget by disbursing more funds than it was taking in. A lengthy discussion ensued in which the Committee debated a course of action.[[390]](#footnote-390)

Chairman Lawrence observed that the LMFC policy on expenditures was determined essentially by default, a policy in which expenditures approximately matched income. The committee felt that a more specific plan should be implemented. After some debate, the committee established the following policy on expenditures: "The Committee will have a central understanding that funds should be available to implement ongoing programs. Funds for additional programs will be expended in accordance with meeting the LM Fund Proposal Guidelines."[[391]](#footnote-391)

The LMFC now turned to its 1992 Operating Budget. It was important for the committee to "be critical" in its budget review, Chairman Lawrence advised. In finalizing the 1992 Budget the Committee took several draconian measures. First of all, several ongoing special projects would receive support in 1992, but not in 1993. This decision applied to the distribution of the "Miracle Force" videocassettes to secondary schools and to the Engineering Research Initiation Grant.[[392]](#footnote-392) Managed and sponsored by the United Engineering Foundation, of which the IEEE was a founding member, the grants were geared toward young fulltime engineering faculty who lacked research support.[[393]](#footnote-393) The LMFC began underwriting the IEEE Engineering Research Initiation Grant in 1989, when the first recipient was Prof. Clany Y. Chou, Worcester Polytechnic Institute. The LMFC increased its support of the grant in 1991 and unanimously approved funding for 1992-1993, which now they took away and, in 1995, discontinued, in response to a decision made by the United Engineering Foundation.[[394]](#footnote-394)

The 1992 budget cuts also impacted several of the medals that the Life Member Fund supported, such as the IEEE Medal for Engineering Excellence, which the Board of Directors established in 1986 and first awarded in 1988.[[395]](#footnote-395) The IEEE Foundation authorized spending for the medal for the first two years and recommended that the Life Member Fund consider providing continuing support thereafter. But in 1987, the Life Member Fund Committee unanimously declined and suggested that another, more appropriate IEEE entity furnish the funds. The Foundation then asked the committee to reconsider its decision "in view of the fact that this award covers the entire spectrum of IEEE technical activities" and that "there is no other entity with available funds with such broad interests." The LMFC agreed to support the medal for 1990 and 1991, with the provisos that the recipient be a "mature engineer" and not a recipient of other IEEE medals and that the Life Member Fund receive credit for sponsoring it. In 1992, the LMFC agreed to support the medal for 1992, but not 1993. Then, in November 1992, the committee reaffirmed its decision not to underwrite the medal for 1993, because it did not "recognize, promote, or benefit the Life Member."[[396]](#footnote-396)

The 1992 budget cuts also had a lasting impact on the Education Medal. It stayed in the 1992 budget, but "the Committee decided that an alternate source of funding should be solicited" and instructed Chairman Bob Lawrence to inform the IEEE Foundation that an alternate source of funds would be solicited for 1993, perhaps the Education Board. If the search for alternate funding was fruitless, the LMFC agreed to support the medal in 1993. The Foundation chose to notify the IEEE Awards Board that they would have to find alternative funding for the Education Medal beyond 1993.[[397]](#footnote-397)

In contrast to the Education and Engineering Excellence medals, the 1992 budget cuts had no impact on the Donald G. Fink Prize Paper Award. In 1978, the IEEE Publication Board had asked the LMFC to underwrite a new annual award of $1,000 for "the best survey, review, or tutorial paper" published in any IEEE journal. The committee gave its unanimous approval. The Donald G. Fink Prize Paper Award, first presented in 1981, subsequently received ongoing LMF funding beginning in 1980.[[398]](#footnote-398)

The 1992 cuts, furthermore, did not impact the oral history work being carried out with LMFC funding by the IEEE History Center, but there was a price to pay. The committee voted to continue its support of oral history projects in 1992, but not in 1993, when the Foundation picked up the tab. However, the History Center now lost its funding for a weather forecasting exhibit, because the LMFC reallocated that money to oral history. Originally, in 1991, the History Center had asked for support to construct an exhibit on three topics—weather forecasting, radar, and competitiveness—that would be displayed at various IEEE functions, but the LMFC agreed to underwrite only the portion dealing with weather forecasting.[[399]](#footnote-399) Now that underwriting was gone.

What To Do?

The committee, whose name changed to the Life Members Committee in August 1992, tried various solutions to the financial problems that seemed to best the fund. Some of the problems resulted from irregularity in the collection of contributions. The lower amount of contributions in 1992 appeared to have been an anomaly resulting from a number of difficulties, and contributions in 1993 were greater than in previous years. Contributions in 1994 and 1995 were up, despite difficulties in 1995 in implementing the computerized system that sent out renewal notices and which resulted in LMF contributions not being recorded.[[400]](#footnote-400)

Although 1994 contributions were higher, the Life Members Committee experienced a financial loss because the fund's investments were down and the forms seeking donations were to be mailed late, in the middle of December. Because the mailing was behind schedule, contributions were late. Foundation members were under the impression that first priority went to sending out dues bills to paying members. The decision to delay billing Life Members had been made without consulting those dependent on those contributions. The Foundation decided to make IEEE administration aware of the dependence on dues contributions by the Life Member Fund.[[401]](#footnote-401)

Chairman Bob Lawrence offered one simple and direct method to control expenditures: "In order to keep the balance of the fund constant, expenses should be limited to the amount of contributions received." Another straightforward method was to set a spending limit. In 2001, some members felt that the committee should limit the amount of funds disbursed that year given the performance of the Life Member Fund. After some debate, the committee agreed on an appropriate spending maximum.[[402]](#footnote-402)

A more sophisticated approach involved establishing a statistical model of membership. In 1996, the LMC considered modeling membership data in an attempt to determine the median age of IEEE members. The model would be able to determine the expected number of Life Members in five years as well as the anticipated financial impact on the IEEE caused by a change in the number of Life members. The plan was to hire an intern to work on the model under the supervision of the IEEE's Research Office, and members of the Regional Activities Board would work with the Research Office to establish the appropriate scope of the analysis. Additionally, LMC members would consult on the project's development. The committee gave its unanimous approval to the "Age Study" and authorized funds for the Research Office to pay an intern. A year later, once the Research Office had identified an intern, Chairman Richard J. "Dick" Jaeger, Jr., requested that Committee members Frederick T. Andrews, Jr., and Theodore S. "Ted" Saad review the proposal to see if the Age Study was still viable. The committee agreed to withdraw funding during its October 1997 meeting.[[403]](#footnote-403)

The Crisis of 1999.

The financial difficulties of the Life Members Committee were twofold: controlling spending and boosting contributions. The ebbing of Life Member contributions came to a head in 1999. Contributions to both the IEEE and the IEEE Foundation had been decreasing in recent years, and over the previous three years contributions to the Life Member Fund had declined 23 percent. During the LMC's April 1999 meeting, Kristina Collmann, IEEE Associate Director of Development, reporting on contributions, described the challenge as coming up with an effective solicitation that would “slow the bleeding” and attract new donors "in a more personal and thoughtful manner."[[404]](#footnote-404)

The LMC debated two proposals to alleviate this problem. One was to have contributions sent to the IEEE Foundation. Contributors would indicate which program area they wanted to support, such as Education, History, Awards, Information Exchange, and Public Awareness. The other proposal was to have a check off line for contributions on the dues renewal solicitation. The IEEE would distribute contributions based on percentages determined from past giving patterns.[[405]](#footnote-405)

In reviewing the proposals, LMC members raised objections based on their experience with Life Members and their voluntary donations to the Life Member Fund. For example, communicating information about specific programs was an essential factor in increasing donations. Many Life Members contributed out of a sense of ownership of the Life Member Fund. Individuals who contributed over $250 received a letter from the LMC chair. One suggestion was to use the newsletter as a vehicle for soliciting additional donations. The newsletter was an especially useful means for raising contributions because it included articles that described current programs underwritten by the Life Member Fund.[[406]](#footnote-406)

Strategic Planning.

A rather different and more formal approach taken by the committee was to draw up a charter or strategic plan that would, in part, provide general guidelines pertaining to the kinds of projects that would receive funding. During the April 1991 meeting, Carlton Bayless, who was IEEE immediate Past President, asked for an overview of the Life Member Fund Committee objectives as a guide to funding projects. Chairman Bob Lawrence reviewed the Guidelines for Funding Proposals that the LMFC had adopted at its Spring 1988 meeting. The guidelines laid out the committee’s relationships with the IEEE Foundation Board and the IEEE History Center and indicated that the committee would approve projects that benefited Life Members and young engineers. The discussion that followed centered on the mission of the LMFC and the development of a strategic plan for administering the Life Member Fund that differed from that stated in IEEE Bylaw 312.5, which pertained to the LMFC. Chairman Lawrence then appointed Anthony Giordano (chair), Amos Joel, and Arthur Goldsmith to constitute the Strategic Planning Committee.[[407]](#footnote-407)

The work of the Strategic Planning Committee proceeded steadily with reports and discussions during the October 1991, April 1992, and April 1993 meetings.[[408]](#footnote-408) During this last meeting, members commented that the Strategic Planning Committee's objectives should be changed to emphasize the providing of more leadership and service for Life Members, instead of just establishing guidelines to help control and determine future LMC activities. Members felt that the LMC should continue to sponsor history of electrical engineering projects, while others expressed support for activities and awards for high school and college students. Members also thought that Life Members should not isolate themselves and that they should be encouraged to attend IEEE activities. The Strategic Planning Committee would consider these remarks and report back at the next meeting.[[409]](#footnote-409)

Accordingly, during its November 1993 meeting, the LMC discussed this second attempt at a strategic plan. Again, among other remarks, members believed that the LMC should encourage Life Members to participate in conferences and other meetings. The LMC asked the Strategic Planning Committee to revise the Strategic Plan and to present it for approval during the April 1994 meeting. The document approved at that time was called the Life Members Committee Charter. At its core were the kinds of projects that the LMC would underwrite.[[410]](#footnote-410)

1993 Strategic Planning: LM Strategic Planning Committee was formed and interim report received recommending: a) oversee the management of LM Fund (including encouraging contributions to Fund), b) provide more service and leadership in response to LM's, c) guidelines to help control and determine future activities of LMFC, d) support history activities, e) encourage LM fellowship and participation in local and national meetings and conferences, speakers programs, etc., f) continue discretion in accepting projects supported by LMF.[[411]](#footnote-411)

The preparation of a strategic plan, as opposed to a charter, arose in late 1995, when the IEEE Foundation asked the LMC to develop one. The LMC chair subsequently appointed an ad hoc committee, composed of Richard Jaeger (chair), Elmer Kaprielian, and Jack Ryan, to draw one up. The draft presented at the November 1996 meeting covered such topics as the responsible management of the Life Member Fund, the provision of ongoing activities for Life members, and the establishment of Life Member committees in the Sections. The LMC accepted the draft and requested that the final version contain expanded activities for Life Members.[[412]](#footnote-412)

In April 1997, the LMC chair named an ad hoc Strategic Planning Committee consisting of Joseph Douglas and Carroll G. Killen, Jr., to update the Strategic Plan for 1998. As presented during the October 1997 meeting, the Strategic Plan included a daring proposal. It read: "Since member interest is stronger in a group when direct election to leadership posts is involved, the LMC should make preparations in 1998 to obtain the approval for the eventual direct election of four Life members to the IEEE Life Members Committee."[[413]](#footnote-413)[[414]](#footnote-414)

However, as the time approached for the conference call regarding the Strategic Plan, Wasyl Janischewskyj was requested to remove the item concerning “directly elected representation on the LMC.” When the ad hoc committee (Janischewskyj, William Middleton, and Dick Jaeger) met via conference call to discuss the Strategic Plan and the revision of IEEE Bylaw I-308.5 governing the LMC, direct election of LMC members was gone. Consistent with the IEEE Bylaws, the Board of Directors appointed the members and chair of the Life Members Committee. One member would be a member of the Board of Directors and another a member of the IEEE Foundation. The Life Members Committee endorsed the revised Strategic Plan and recommended that the Board of Directors give its approval.[[415]](#footnote-415)

ORAL HISTORY AND LEGACIES

The expansive nature of the history projects funded by the Life Member Fund Committee from the IEEE Centennial forward continued into the 1990s, albeit not at the same pace. Oral history came into the fore in a number of forms, including the Autobiographical Experiment Project that encouraged Life Members to write about their own experiences as electrical engineers. The Life Member Fund underwrote a number of special projects, but two stood out as the two truly large history projects of the 1990s.

The IEEE History Center, to be better able to carry out the extensive research that the History Committee desired, moved to Rutgers University in New Brunswick, New Jersey, in 1990. The combined support of the IEEE and the university enabled the Center to expand its staff, which included the summer graduate internship funded by the Life Member Fund Committee, and oral history became a major activity. The staff assured the transcribing and editing of the interviews, which the Center made available to researchers either at the Center or later via its website.[[416]](#footnote-416)

In addition to the internship, the Life Member Fund Committee (the Life Members Committee from 1992) continued to support the Life Members’ Fellowship in Electrical History and the Life Members' Prize in Electrical History. In 1994, the Life Members Committee wanted more of a say in the awarding of the prize, and Frederik "Rik" Nebeker, who had joined the History Center staff in 1990, served as their representative on the selection committee.[[417]](#footnote-417)

Sparks of Genius.

The projects underwritten by the Life Member Fund reflected the History Center's emphasis on oral history. In 1990, Bill Aspray, the Director of the History Center, discussed a project with the Life Member Fund Committee that had the backing of the IEEE History Committee. The idea was to record detailed histories of key individuals in the field of electrical engineering. The interviews would be made available to Life Members as well as IEEE Sections, Chapters, and Societies for their use. Aspray suggested that LFMC members, perhaps organized as a subcommittee, work with the History Committee to prioritize potential interview candidates. Several initial candidates, including Ernest Weber, David Packard, and Jack Kilby, already had been identified. The committee gave its unanimous approval.[[418]](#footnote-418)

The IEEE Oral History Program, as it was known initially, began with an interview of Ernst Weber. Aspray discussed the process of choosing interview candidates and encouraged the LMFC to supply candidate names to the LMFC Chairman along with a brief description of the candidate’s noteworthy contributions to electrical engineering. Although Gordon K. Teal of Texas Instruments had been mentioned as a possibility, the next interviewees were Harold Wheeler and Edwin Harder.[[419]](#footnote-419)

By the LMFC's November 1991 meeting, the oral history project had added a written element. Aspray explained how articles would be constructed from the oral histories of Ernst Weber, Harold Wheeler, and Edwin Harder, because the committee was interested in how the articles were being distributed and printed. The IEEE *Proceedings* had agreed to publish three to six articles from 20 to 30 pages in length. In response to the committee's concern over how the articles would be promoted, Aspray mentioned that *Spectrum* might print short summaries promoting the articles. The LMFC gave its unanimous consent to the continuation of the Oral History Project with additional funding for 1992. After some discussion, there was agreement that the subjects of the next interviews and articles would be Gordon Teal, Harold Beverage, Amos Joel, and Sydney Darlington.[[420]](#footnote-420)

In the end, the project completed eight impressive interviews with pioneers in a range of electrical fields: Ernst Weber, Herman P. Schwan, Charles Townes, Gordon Teal, Harold Alden Wheeler, Edwin L Harder, Thelma Estrin, and Amos Joel. The interviews became the basis for eight biographies written by Nebeker in an effort to be enjoyable to all and to bring students into the profession. IEEE Press published the entire collection in 1994 under the title, "Sparks of Genius."[[421]](#footnote-421)

Legacy Oral Histories.

As "Sparks of Genius" went to press, the History Center asked for money to tackle a different set of oral histories. In 1985, the IEEE History Center surveyed its collection of oral histories. "None of the interview tapes currently held by the Center are transcribed," they reported. "A researcher is allowed to use a duplicate tape once the interviewee and an IEEE representative sign a standard release form." Barney Finn suggested that the Center draw up a plan for transcribing all of the tapes. The History Committee agreed on the need to catalog the existing interviews in repositories in the United States and to sponsor oral interviews by historians working on specific projects.[[422]](#footnote-422)

These were the 50 or so legacy oral histories, some conducted before 1980 by members of the History Committee, chiefly Frank Polkinghorn and Julian Tebo, with some modest support from the Life Member Fund Committee. The legacy interviews never had been transcribed. Transcription is necessary to preserve the information before the recording tapes deteriorate. Aspray proposed transcribing the interviews and making them available in two formats: on paper at the History Center and on a file server, so that people could access them through the Internet. The interviews would be of use to scholars and journalists for preparing articles on the electrical engineering profession as well as to the general public. The Life Members Committee agreed with the importance of the proposed effort and voted funds for the two-year project in 1994 and 1995.[[423]](#footnote-423)

Transcribing continued from 1994 into 1995, when the project was still on schedule, but the History Center had lost four interviews because of the deteriorated condition of the tapes. Aspray noted that the History Center was establishing a home page on the World Wide Web. The plan was to place the majority of the History Center's interviews on the IEEE server, where the public could retrieve them. The Center would post abstracts of the interviews as well. By April 1996, Aspray could report that 47 of the legacy interviews were completely processed and available on the History Center's Website. In addition, the History Center had received a grant from the LMC to update, refurbish, and expand the IEEE History Center home page.[[424]](#footnote-424)

The Autobiographical Experiment Project.

In 1988, the Life Member Fund Committee turned to a different and older form of personal history,[[425]](#footnote-425) the autobiography, memoirs of one's own life. The purpose of the Autobiographical Experiment Project, as it was known, was to "document stories about the lives and careers of engineers." The Spring/Summer 1988 issue of the Life Member Fund Newsletter carried an article about the undertaking from Robert F. Lawrence which began: "We are proposing an experiment. And we would like your participation. All it takes is a little writing about a subject of great interest—yourself—an informal biography or memoirs, if you prefer." The article provided a few questions to help Life Members to begin writing. "This is an experiment, however," Lawrence reminded his readers. "There are no guarantees. If the material turns out to be ultra dull reading, the project will be dropped. But if you give us your best effort and it shows in the materials, the Life Member Fund Committee will keep on this project until completion." If the quality and quantity of responses were good, the committee thought that the "collection may be published under one cover."[[426]](#footnote-426)

Despite this tentative start, the Autobiographical Experiment Project quickly grew to become one of the major activities of the Life Member Fund Committee. The results of the newsletter call for memoirs were encouraging. At the committee's October 1988 meeting, Lawrence explained that the project would take place in two phases. The first would consist of soliciting and consolidating the material. Publishing the results would be the second phase. Lawrence requested funding for a part-time historian and assistant plus travel, printing, mailing, and telephone expenses and received funds to get the project going.[[427]](#footnote-427)

A year later, the number of stories received from Life Members had grown fivefold to 162, and the Autobiographical Experiment had become the Life Member Story Project. Chairman Lawrence also reported that the next step was to organize the material for review, with June 1990 being "a conceptual date" for an edited draft of the document. However, editing fell behind schedule. In October 1990, Lawrence reported that the project was on schedule. Life Members had contributed 200 stories about childhood memories, career moves, patents and awards, getting started in engineering, and military service.[[428]](#footnote-428)

Lawrence's estimated goal of publishing all stories in a single volume seemed optimistic by April 1991, when it appeared that the 250 stories received to date might require the preparation of two volumes. The stated goal also was that all Life Members would get a copy of the book. As editing wrapped up two years later, the book now had a title, "Legacies." The plan was to make 5,000 copies available. Everyone who contributed to the book as well as the members of the LMFC would receive a complimentary copy. The anticipated publication date of "Legacies" slipped to the Summer of 1994 then to the end of 1994.[[429]](#footnote-429)

The publication of "Legacies"[[430]](#footnote-430) was an unquestionable success in terms of both capturing the experiences of Life Members and sales. The LMC paid for an advertisement for the book in *Spectrum* to make it available to a broader range of people and to expand distribution, with the provision that the income generated would be returned to the LMC. The advertisement ran in December 1995 and January 1996, and a fifth of the book sales to date were ascribed to the advertisement. "Legacies" continued to sell in 1996, when the LMC offered it at the 1996 Sections Congress in Denver, Colorado.[[431]](#footnote-431) Today, these stories are available in the "first hand history" section of the IEEE Global History Network.

History on the Web.

The Life Members Committee also continued to fund special projects, such as the Steinmetz exhibit, a cooperative effort of the IEEE History Center and the non-profit Hall of History Foundation in Schenectady, New York. The Hall of History Foundation had underwritten the publication of several works dealing with the history of electricity, such as the 1977 "Recollections of Steinmetz,"[[432]](#footnote-432) and maintained the archives of the General Electric Company.

Sometimes, special projects could become complicated for a number of reasons. Typifying this complexity is the 1988 proposal to support the publication of a book on the history of television up to 1940 compiled by the late George Shiers. Money was needed for two editors and an indexer. The IEEE History Committee had approved the undertaking at its 25 March 1988 meeting and asked the LMFC for the funds. However, the agreement with the publisher stated that the publication royalties would be paid to the author's widow, May Shiers. The committee was concerned that funding the effort might raise potential tax questions, and it would set a precedent by using the Life Member Fund in a way that benefited a private individual. After a lengthy discussion, the LMFC unanimously declined the funding request.[[433]](#footnote-433)

At the next meeting of the LMFC, the acting head of the History Center presented a new funding request that paid royalties to the IEEE. The committee agreed. The royalties would go to the Life Member Fund as a contribution, and six copies of the book would be donated to the Engineering Societies Library. Elliot N. Sivowitch, a long-time scholar of television and radio history in the Smithsonian Institution's Division of Electricity and Modern Physics, along with Prof. Christopher Sterling, George Washington University, saw the manuscript to publication.[[434]](#footnote-434) Finally, in early 1997, Garland Publishing released Shiers' "Early Television: A Bibliographic Guide to 1940."[[435]](#footnote-435)

The kinds of special projects receiving Life Member Fund grants varied, but increasingly new proposals involved the Internet. One example was the proposal submitted by Leonard S. Taylor, University of Maryland Electrical Engineering Department, and titled Humanizing Engineers via Internet. He proposed to distribute information on the history of electrical engineering with the focus being on personalities, rather than technical aspects.[[436]](#footnote-436)

In contrast to these small, one-time grants were the sustained efforts that lasted over several years. One of the larger projects undertaken originally proposed to put old industrial films on CD, but ended up on the Internet. The collection of 21 silent films, each about three minutes long and made between 18 April and 16 May 1904 in Pittsburgh, Pennsylvania, documented various Westinghouse manufacturing plants for showing at the 1904 St. Louis World's Fair.[[437]](#footnote-437) The films were relevant to the history of electrical engineering, because they portrayed such operations as assembling a generator and assembling and testing turbines. They are now part of the National Film Registry of the Library of Congress[[438]](#footnote-438) and available on Youtube thanks to the Library of Congress.

The Life Members Committee came to this important historical project in 1997 by way of Julian Reitman, who taught courses in computer simulation at the University of Connecticut in Stamford. He proposed to convert and record the films on CD-ROM to provide classroom educational materials that would show "early electrical engineering achievements." Michael Geselowitz, the new Director of the History Center, offered to oversee the project and to distribute copies of the CD-ROM. Reitman's proposal included the cost of purchasing a laptop computer. The committee agreed that the IEEE would provide one for the duration of the project, to be returned to the IEEE when the project was completed. The LMC then voted funds for the undertaking.[[439]](#footnote-439)

By October 1999, Reitman, with funding and a loaned laptop from the LMC and additional support from the University of Connecticut, had developed "version 1.00" of a CD-ROM of “Time Capsule of 1904: Films, Photos and Texts.” He gave a demonstration at the Life Members Committee meeting that pleased those attending the October meeting. The CD-ROM combined the films with photos and texts from the period to provide an understanding of the workings of a 1904 industrial plant. Reitman stated that the next step was to address the comments made regarding version 1.00 and to integrate them in version 2.00 with additional funds. The LMC wanted to ensure that the work continued, if Reitman, the only one engaged in the undertaking, were unable to continue on the project, so they asked the Director of the History Center to develop a plan.[[440]](#footnote-440)

As a result of that request, effective April 2000, the LMC approved a grant request from the History Center to reorganize and transfer the materials from the Westinghouse CD-ROM so that they were ready to be delivered over the Web. At the same time, the Center would prepare appropriate documentation on the project and its history and related materials. The effort was now a multimedia project sustained by the History Center staff. The project initially ran from July 2000 through June 2001, the usual term of a University of Connecticut graduate assistant, because much of the work was performed by a graduate student at that school thanks to the Life Member Fund. Additional funds employed a graduate student from 2001 to 2002 to prepare the Westinghouse materials in the form of an online exhibit for the History Center's website.[[441]](#footnote-441)

Power and Control.

An even large project supported by the Life Member Fund

and carried out by the History Center did not involve creating an Internet product, but rather books on the history of electrical engineering. It was the History Center's largest undertaking at the time, and the largest history project supported by the Life Member Fund in terms of duration. Moreover, the annual award was bigger than any other Life Member Fund expenditure, and the project relied on additional funding sources from both within and outside the IEEE.

The enterprise began modestly in retrospect as a request from the History Center. As described by the center's director, William Aspray, the core of the center's activities would be a multiyear program. In the first three years, the staff would write a one-volume history of electrical technology, targeted at electrical engineers, but accessible to the educated public. Simultaneously, the center would conduct a series of oral-history interviews, both as part of the research for the book and as a resource for future historical work. In the subsequent years, Center staff would carry out a series of studies, each focused on one branch of electrical engineering and culminating in the publication of a monograph. Finally, Center staff would undertake a rewriting of the one-volume history. The obvious question that arose among the members of the History Committee was how to pay for this ambitious undertaking.[[442]](#footnote-442)

Emerson Pugh suggested seeking the funding from the IEEE technical societies, while Barney Finn said that the aim should be to gain continued funding for the Center from the societies, so that this program should be sold as an example of the Center's activities. Others on the History Committee were concerned about the content of the one-volume history.[[443]](#footnote-443)

The History Center hired a Research Historian to work with existing staff on the one-volume history of electrical technology. Meanwhile, the search for support from the technical societies as well as the IEEE General Fund was underway. A grant from the IEEE Foundation helped to start the project, but with no prospect for further support. In addition, grant proposals were going out to both the Sloan and Mellon Foundations.[[444]](#footnote-444)

In November 1992, the Life Member Fund Committee received a request to support oral histories for the one-volume history book, "Power and Control: A History of Electrical Electronic and Computer Technologies." The committee felt that it would be a beneficial project, but lacked the additional funds for the project. The LMFC already had made deep budget cuts during its meeting the previous April. The proposal went down in defeat.[[445]](#footnote-445)

Bill Aspray brought the project before the Life Members Committee again in April 1993. He described "Power and Control" as a five-year project to produce a one-volume history of electrical technology since 1830, based partly on a set of interviews with distinguished electrical engineers and written so as to be understood by a lay readers, but without compromising the technical information contained in the text. Aspray chose the project because it could not be accomplished by an individual, but was an appropriate task for the History Center. He stated that the project also would receive funding from the IEEE Foundation's General Fund and Friends Fund with possible matching money from other entities either within or outside the IEEE. Aspray distributed a working outline of the project and noted that the outline will undergo continuous change.[[446]](#footnote-446)

Committee members expressed enthusiasm for the project, but noted that they would have to dip into reserve funds to support it. The committee could not guarantee project funding for five years. However, the History Center could request further funding annually, while the committee retained the privilege to discontinue funding. On that basis, the committee approved the funding request.[[447]](#footnote-447) And so it began.

By the November 1993 meeting of the LMC, "Power and Control" had grown larger. Additional money was coming from the Andrew W. Mellon Foundation and the Friends of the History Committee. The Mellon Foundation agreed to donate with the stipulation that the project have a global, rather than a national orientation. The objective of the effort was now the production of a three-volume history of all electrical technologies since 1830 based partly on interviews with distinguished electrical engineers. The volumes would cover the period before World War I, the interwar decades, and the era after World War II.[[448]](#footnote-448)

Research historians at the History Center decided to concentrate first on the years between the two world wars, because of the important progress made during that period and relative little attention paid to it in the historical literature. Chapters were drafted on radio engineering. Two chapters drafted on postwar period dealing with television and domestic technology. The archival component of the project was underway (thanks to the Mellon grant), and about 20 oral histories had been conducted, with the goal of interviewing between 100 and 200 "major IEEE award winners and former IEEE presidents" by the time work on "Power and Control" ended.[[449]](#footnote-449)

The 20 oral histories conducted in 1993 became 65 by November 1994, when the History Center anticipated conducting 200 oral histories in all. In 1994, the second year of the project, two members of the History Center were working on this project. In 1995, this largest project being conducted by the History Center had three components: 1) create a three-volume history of electrical technology; 2) conduct, transcribe, and edit 200 oral histories; and 3) ensure the preservation of documentation relating to the history of electrical technology. For this latter component, the History Center had hired an archivist and developed brochures to educate individuals and corporations on the importance of keeping proper historical records and on which types of records are worth keeping.[[450]](#footnote-450)

The archival component of the Power and Control project reached completion by the end of 1995, with the publication of an international guide to corporate records and archives in the electrical, electronics, and computer industries.[[451]](#footnote-451) The History Center was about six months ahead of schedule in conducting oral interviews, but on the advice of the History Committee was suspending temporarily the recording of interviews, so that the staff could finish transcribing and editing the 70 interviews already recorded. Writing, on the other hand, was about one month behind schedule. Volume II was expected to be completed in draft form by the end of 1996.[[452]](#footnote-452)

In 1996, as "Power and Control" headed into its third year, the History Center renamed it the History of IEEE Technologies Project to avoid confusion regarding the project's scope. In April 1996, the first draft of Volume II was on schedule for completion by the end of the year, and it was likely that a first draft of Volume III would be ready late in 1997. Work on Volume I was due to start in 1997. However, by April 1997, writing was behind schedule. The first draft of Volume II was nearing completion, and half of the chapters of Volume III had been drafted.[[453]](#footnote-453)

By the October 1997 meeting of the LMC, a number of milestones had been achieved. The project's archival component had reached completion in 1995 with the publication of an international guide to corporate archives. The History Center deemed the oral history component to be complete, although only 150 (not 200) interviews had taken place. The three-volume history, though, now underwent a radical change. The History Center considered it to be "more efficient and timely" to turn Volume III, which dealt with the period since World War II, into a series of monographs. Chapters already in progress would become the bases for these monographs. Two monographs already were scheduled for delivery by the end of 1997. One dealt with entertainment technologies,[[454]](#footnote-454) the other with telecommunications.[[455]](#footnote-455) In preparation for publication in 1998 were monographs on electric-power technologies, personal computing and networking, electrical technologies in manufacturing, and aerospace technologies.[[456]](#footnote-456)

In 1998, work on these monographs was proceeding, and Academic Press expressed interest in incorporating them into a multi-volume publication on the history of electrical engineering and computing.[[457]](#footnote-457) Michael Geselowitz, Director of the History Center, saw "this as an opportunity to bring actual closure to this project, so I am exploring the possibilities." By October 1998, the first of the monographs was in press. It started, however, as a major anniversary history project carried out on behalf of the IEEE Signal Processing Society.[[458]](#footnote-458) The result was two publications, one marking the fiftieth anniversary of the Signal Processing Society and the other on the emergence of signal processing as a discipline.[[459]](#footnote-459)

The History of IEEE Technologies Project continued through 1999 and beyond. Geselowitz reported that work continued on several of the monographs, with those on consumer electronics and power slated to appear by the end of the year.[[460]](#footnote-460) Volume II on the interwar era was continuing and had the tentative title "The Dawn of Electronics."[[461]](#footnote-461) It eventually came out in 2009 as "Dawn of the Electronic Age."[[462]](#footnote-462)

The History of IEEE Technologies Project also spun off a book intended to be a photographic history of electrical, electronic, and computing technology during World War II. The IEEE Press was interested, but was concerned that the subject might be too big for a single book. Potentially, the publication would generate a small amount of revenue, which would be returned to the LMC, if they chose to support the project. There was some concern over the topics that the book would cover, and in the end the LMC turned down the proposal and the project died.[[463]](#footnote-463)

ADVOCATES

During the 1990s, the Life Members Committee continued its advocacy on behalf of both older IEEE members and Life Members in accordance with its charter and IEEE bylaws. This commitment remains in the committee's charter today. Moreover, the committee instigated its name change to the Life Members Committee in 1992 to better reflect its concern with Life Member interests.[[464]](#footnote-464)

Advocating for older IEEE and Life Members during the 1990s meant responding to several attempts to create new grades and types of IEEE membership as well as efforts to compel Life Members to pay dues. The driving force behind these attempts was the fact that the expense of providing benefits to what was perceived to be a growing number of Life Members was a financial burden on the IEEE that was growing increasingly heavier. Advocacy entailed delivering new benefits, such as a website, and defending lower conference fees for Life Members. The committee spent a significant amount of time campaigning for life membership eligibility requirements.

In Search of a Solution.

In 1990, because the expense of providing benefits to the growing numbers of Life Members was an increasing financial burden, the IEEE proposed charging Life Members 50% dues starting in 1992. During the discussion that followed, Chairman Anthony B. Giordano was concerned about using life membership as an income source. Charging dues would severely cut contributions to the Life Member Fund. If contributions declined, the committee would have to curtail its support of ongoing medal, prize, and fellowship programs and History Center projects among others. Giordano noted the LMFC's general discontent with the proposal and called attention to the discussion of potential dues assessments on older and Life Members that had taken place at the recent 1990 Sections Congress in Toronto.[[465]](#footnote-465)

The IEEE also proposed new membership types that the LMC opposed. In 1991, for example, Arthur Van Gelder, chairman of the Regional Activities Board (RAB) Awards and Recognition Committee, asked the LMC for comments about recognizing 50 years of membership. The committee felt that it was a good idea, but the cost would be too high and being a Life Member was "sufficient recognition."[[466]](#footnote-466) That same year, the LMC discussed a proposal to create a new grade of honorary membership that would recognize Life Members technical executives in industry who had not achieved the membership grade of IEEE Fellow. Although Chairman Bob Lawrence charged the Strategic Planning Committee with investigating the proposal, it was removed from the agenda[[467]](#footnote-467) and went nowhere.

Also in 1991, the rising cost of providing services to Life Members led the Regional Activities Board and the Membership Development Committee to form the Task Force on Life Member Services to review questions relating to Life Membership.[[468]](#footnote-468) Chaired by Jan Brown, the Task Force included LMC Chair Bob Lawrence and Theodore S. Saad, who had served on several IEEE committees since the 1970s, including the Regional Activities Board and the History Committee. He joined the LMC in 1992 and served as its chair (1994-1996) during his decade of service on the committee.[[469]](#footnote-469)

The Task Force met in November 1992 and presented its report to the IEEE Executive Committee on 5 December 1992. The Task Force stated that there were then about 21,000 Life Members, a number that "probably [was] high due to the fact that Life Member records have not been updated for some time." They estimated that by the year 2005 the number of Life Members would not exceed 25,000 to 30,000 and then would decrease. The Task Force considered several aspects of life membership and concluded that: "a Life Member category of membership in the IEEE is necessary and should be maintained."[[470]](#footnote-470)

One of the questions tackled by the Task Force was eligibility for Life Member status. Since 1971, as we saw above, life membership was available to any member who had reached the age of 65 and whose combined age and length of membership (including student years) totaled 100.[[471]](#footnote-471) This is the same algorithm in use today. In 1989, the Life Member Fund Committee discussed eliminating the age requirement of 65—eligibility would be based solely on years of membership—and gave its unanimous approval to changing IEEE bylaw 102.1 accordingly.[[472]](#footnote-472) The proposal apparently went nowhere. Meanwhile, by 1991, a number of retired members had dropped out of the IEEE, because they qualified for neither life membership nor reduced retiree dues as a result of early retirement.[[473]](#footnote-473)

The Task Force on Life Member Services agreed with abolishing the age requirement "to eliminate the perception of age discrimination" and advised starting life membership after 40 years of paying IEEE dues based on their comparative study of other professional organizations and societies. The change would take place over five years during which the required years of membership would rise from the current 35 one year at a time until reaching 40 "and the age parameter disappears" in 1998.[[474]](#footnote-474)

In 1993, the Regional Activities Board and the Technical Activities Board both approved in principle the recommendation to eliminate the age requirement for life membership. However, with the approval of the new formula phased in over five years, life membership became a confusing subject. The Life Members Committee eventually changed its stance on eliminating the age requirement. In 1995, LMC Chairman Ted Saad received several letters suggesting a review of life membership qualifications. Committee members wanted to know how many members had been and were going to be impacted by the bylaw change. The committee also wanted to investigate the financial impact. For the moment, though, the LMC recommended staying with the present algorithm until additional information became available.[[475]](#footnote-475)

As a result of the clamor, in February 1996, the Board of Directors revised bylaw 102.1 to "grandfather" members who had joined the IEEE before 1994. They would be eligible for Life Member status under both the previous and the new formula. There was some confusion among LMC members about the meaning of the new life membership qualifications. Although the bylaw stated that Life Member status was "applicable only to a member who has maintained at least forty years of membership in the IEEE or one of its predecessor Societies," at least one LMC member thought that it meant that a member could obtain Life Membership by pre-paying their membership for 40 years. This led to a discussion of the philosophical question: what is a Life Member? Is it a person who pays for 40 years of membership or a person who has achieved a certain level of maturity in professional life?[[476]](#footnote-476)

In 1996, the LMC unanimously endorsed the recommendation of the Technical Activities Board that Life Member qualifications revert to the previous formula: members had to be a minimum age of 65 and the sum of their age plus years of paid IEEE dues had to equal or exceed 100. In June 1997, the Board of Directors approved a revision to bylaw 102.1 that restored the original algorithm for Life Member qualifications.[[477]](#footnote-477)

A related issue was Life Member status within IEEE Societies. Bylaw 109.2 stated: "An individual who has had not less than five years of Society membership immediately prior to attaining Life Membership, or completes such five-year membership while a Life Member, may continue a Life Membership in the Society without fee payment." Life membership in a Society entitled that member to receive the services and publication(s) included with the basic Society fee free of charge, provided that the member confirmed each year that he or she still desired those services and publication(s).[[478]](#footnote-478)

In October 1996, the LMC unanimously endorsed the proposal that the qualification for Life Member status in the Societies should be no less than ten years of continuous service just prior to obtaining life membership. The Board of Directors had dropped the issue from its June 1996 agenda and referred it back to a Technical Activities Board ad hoc committee, formed to address concern over the growing number of Life Members and their potentially adverse impact on Society future finances. In 1998, the IEEE chose to remain with a minimum of five years of membership in a Society immediately prior to attaining Life Membership.[[479]](#footnote-479)

Members with Benefits.

The Task Force on Life Member Services computed the cost of maintaining Life Members as equaling less than 1% of the General Fund Budget, and they recommended that the General Fund continue to support Life Members. However, as "a means of both reducing costs based on Life Members desires and increasing income based on Life Members goodwill," they suggested sending Life Members an annual membership update form that would give them "the opportunity to choose which services they would like to maintain (*Spectrum*, *The Institute*, etc.) and the opportunity to make other voluntary contributions to various funds of IEEE (Foundation, etc.)."[[480]](#footnote-480)

Earlier in 1992, the LMC had discussed the decision of the IEEE Executive Committee to send Life Members bills showing their forgiveness from dues and providing opportunities to donate to the History Center, the IEEE Foundation, the Life Member Fund, and the IEEE General Fund. The committee disapproved. Members felt that the challenge of distinguishing among different funds was too great for the average IEEE member and, consequently, donations to the Life Member Fund would decline. The committee agreed on publicizing LMFC activities more actively and explaining the benefits of supporting the Life Member Fund. Life Members would be informed that their contributions were helping to sustain activities in favor of early-career engineers and fellow Life Members.[[481]](#footnote-481) Subsequently, during its April 1993 meeting, the LMC embraced the proposal.[[482]](#footnote-482) As a result, money going into the Life Member Fund derived the majority of its donations from the annual renewal notice sent to Life Members.[[483]](#footnote-483)

Among its other recommendations, the Task Force on Life Member Services endorsed giving Life Members basic membership benefits, such as voting rights, as well as basic admission to Region and Society sponsored conferences at no cost. Basic admission was the basic registration fee only, exclusive of proceedings, social functions, etc. In 1993, the Technical Activities Board approved a motion waiving the registration fee for Life Members attending Society-sponsored conferences. The LMC was very appreciative of the board's action, because Life Members and older members tended to be retirees with no employer support to attend conferences.[[484]](#footnote-484)

By 1998, inconsistencies in the application of the waiver had become apparent.[[485]](#footnote-485) The conferences had volunteers doing a lot of things for the first time, Dan Toland explained, "and they might not be aware of the policies and the procedures that have been established." At the time, a lot of pertinent information was still written on paper, "a lot of it was word of mouth, and people did not get that information, so it did create more of a concern for people." Today, it is far less of an issue.[[486]](#footnote-486)

In 1998, the Technical Meetings and Services Committee of the Technical Activities Board was in the process of revising the IEEE Policy and Procedure Statement applicable to conferences. Here was an opportunity to alter policy regarding registration fees. LMC Chair Dick Jaeger wrote to the committee as well as to the IEEE President to ask that they insert a statement that: “Life Members' conference registration fees be no more than Student member fees.”[[487]](#footnote-487)

The effort was a success. It was now policy that the individual registration fee for retired and Life Members had to be no more than that for student members. However, that policy also stated that the conference committee had the discretion to offer reduced fees, a waiver of fees, or a reduced fee for Life Members, unemployed or retired members, and special registrants. LMC members wanted to know how the IEEE was enforcing this policy. IEEE staff was publicizing the policy and encouraging conference committees to offer reduced registration fees for Life Members. If the conference committee offered Life Members a rate greater than the student rate, IEEE staff would inform the conference committee that they were in violation of IEEE Policy.[[488]](#footnote-488)

In addition, Irving Engelson, along with Dick Jaeger and Eric Herz, worked with Technical Activities Board staff to develop a generic statement to address the issue of making conference organizers aware of the bylaw requirement regarding Life Member conference fees.[[489]](#footnote-489) Engelson saw to the publicizing of the policy to the Societies in 1999 and into 2000 and the placement of that policy on the Life Member website,[[490]](#footnote-490) which was a relatively new innovation.

The Life Member Website.

The opportunity to create the website arose in 1997, when Bob Alden, the Chair of the IEEE Electronic Communications Steering Committee, offered to help develop a Life Member homepage. Earlier, in 1995, the LMC had received a letter suggesting the establishment of an electronic bulletin board for Life Members. It would be another way for Life Members with access to e-mail to dialog among themselves. The committee was supportive of the concept, but did not feel that it should be a replacement for the newsletter, so they did not make it a priority. The newsletter, Chairman Saad noted, was the primary vehicle of communications for Life Members. In response to the offer to set up a website, Irving Engelson headed an effort to identify topics that could be included on the website and asked LMC members for suggestions. Subsequently, an ad hoc website committee formed to review those suggestions, to publish pages prior to the next meeting in 2000, and to revise content based on comments from the LMC.[[491]](#footnote-491)

The LMC website underwent ongoing revision based on suggestions offered by committee members, such as the inclusion of a counter to determine the number of visitors. In 2003, the LMC proposed adding a section on “War Stories” potentially to generate more site traffic. The IEEE Life Members Forum was the result. It allowed Life Members an opportunity to share their "war stories" with other Life Members. An announcement in the newsletter invited members to "join the community."[[492]](#footnote-492) The website thus was set to evolve into another social infrastructure in conjunction with the newsletter. The next step was to turn the website into a true community gathering place.

In 2004, Chairman Om Malik reported that the website, the newsletter, and the Virtual Community Forum, where Life Members could communicate with each other and organize activities, were becoming "effective means of communication among the Life Members." Life Members were being encouraged to participate in the Life Members Forum using the IEEE Virtual Communities website. "Although some interest has started to be shown in it, it is a slow process for LMs who were not born with the 'mouse' in the hand and the index finger on the button."[[493]](#footnote-493)

In March 2005, a committee consisting of Louis A. "Lou" Luceri, Julian Bussgang, and Jacob Baal-Schem solicited feedback on the idea of broadening the website "to really deal not just with the LMs Committee per se, but also with the activities of Life Members, in a more comprehensive way." They proposed including information on existing chapter and activities with links, the formation of Life Member chapters, opportunities to volunteer, donations, and the rights and privileges of Life Membership. "The page(s) might also pose a question to the readers, and solicit answers from them. The general idea would be to motivate the Life Members to become involved." Work on updating the website continued into the fall in hopes of completing the project by December 2005. By 2006, however, the performance of the Life Member Forum was not living up to expectations. The number of items that Life Members had posted had been minimal.[[494]](#footnote-494)

As Arthur Winston noted, the question was whether Life Members would make use of it. "We already knew that a significant portion of IEEE members, forget Life Members, but members did not receive email. In fact, a significant number of members objected to receiving email. . . . In the case of Life Members, it was a question of whether they really are looking at the web and whether they can be reached that way or not. . . . Even though they might have the time, it's not part of their natural upbringing, paying to be able to get on. However, the newsletters provide them that opportunity."[[495]](#footnote-495)

LIFE MEMBERS IN THE SECTIONS

By 1990, the increasing activity, importance, and numbers of Life Members was becoming evident. More and more, the trend was to move certain Life Member activities into the Sections. The Life Members Committee began encouraging the formation of Life Member clubs or chapters—now known as Affinity Groups—in all IEEE Sections.[[496]](#footnote-496) The locus of sociability activities now shifted from regional conventions to the Sections, with the emphasis on the Sections Congress.

IEEE Sections Congresses, which have taken place every three years since 1984, provide a grassroots gathering place for Section leaders from all IEEE Regions to network with other Section leaders and to develop ideas for guiding the IEEE in the future. In 2014, the Life Members Committee was one of the top sponsors of the Sections Congress.[[497]](#footnote-497) They were a potential venue for promoting both the Life Member Fund and its committee as well as the creation of Section-level Life Member groups.

The committee seized on the 1990 Sections Congress in Toronto as a venue for promoting the Life Member Fund. The program included a plenary session, "The Big Network: IEEE" and a corresponding tutorial breakout session called "IEEE Resources - Older Member/Life Member Programs." In addition, the LMFC continued to sponsor the Life Member hospitality room at ELECTRO in 1991, 1993, and 1996.[[498]](#footnote-498) Meanwhile, the LMC ignored the 1993 Sections Congress.

Section Congresses.

From 1990 to 1993, the IEEE was putting an increasing emphasis on the Sections, and the Life Members recognized this trend as another opportunity for them to work closely with and to communicate with members.[[499]](#footnote-499) During the LMC's October 1995 meeting, a member suggested that the committee underwrite a delegates' luncheon at the 1996 Section Congress in Denver. It would be a chance to inform members about the Life Member Fund and committee activities. Also, if they funded the luncheon, they could send a representative to speak to the delegates. The gesture might make members more inclined to donate to the Life Member Fund, and the meeting could be an opportunity to inform Sections that they could set up a Life Members Committee within the Section. However, some members expressed concern over setting a precedent for donating to each Sections Congress every three years, and there was some question as to the real benefit to be derived from sponsoring the luncheon. After more discussion, the Life Members Committee voted against both the luncheon as well as an educational presentation at the Section Congress. Some members believed that these were not appropriate uses of the Life Member Fund.[[500]](#footnote-500)

Another attempt to fund the delegates' luncheon arose during the committee's April 1996 meeting. Phil Paterno, the Chairman of the Sections Congress Program Committee, addressed the LMC and told them that if they funded the luncheon, a representative of the LMC could give a 30-40 minute presentation at the luncheon on the topic "Life Members as a Resource to Section Leaders." He argued that both the LMC and the IEEE would benefit. It was a chance for the LMC to tell Section leaders about LMC activities and accomplishments and to inform them how Life Members could be a source of volunteers or serve as mentors to younger officers. The committee approved funding for the luncheon and having a representative (Chairman Ted Saad) give a 30-40 minute talk at the luncheon. In addition, Saad distributed a newly developed “Life Members Resource Guide."[[501]](#footnote-501)

Funding for participation at subsequent Sections Congresses was approved more readily. In October 1998, with encouragement from Chairman Saad, the LMC approved funding for a delegates luncheon during the 1999 Sections Congress in Minneapolis, in response to a proposal from the Sections Congress Organizing Committee.[[502]](#footnote-502) This formula of luncheon sponsorship in exchange for an extended presentation by the Life Members Committee chair continued for the Section Congress of 2002 in Washington, DC, when the LMC agreed to set up an exhibit table. Also, a representative participated in one of the relevant Breakout sessions to provide comments on the benefits of keeping Life Members involved in their activities.[[503]](#footnote-503)

The LMC hit its stride with the 2005 Sections Congress in Tampa. The committee authorized funds for the delegates luncheon during which the LMC chair would give a brief introduction to LMC activities. In addition, to broaden awareness of the LMC and to publicize its activities, the chair appointed an ad hoc committee consisting of George McClure (Chair), Eduardo Bonzi-Correa, and Jacob Baal-Schem to come up with new ideas. As a result, at the Tampa meeting, LMC representatives distributed a pocket calendar and a Life Member brochure as well as a questionnaire and Baal-Schem participated in a breakout session.[[504]](#footnote-504)

The LMC sponsored a luncheon at the 2008 Sections Congress in Quebec City, Canada, and planned to have an exhibit table, a meeting of the LMC, an updated brochure on Life Member activities, information on how to apply for a grant, and a Regional Life Member Coordinator workshop as well.[[505]](#footnote-505) For the 2011 Sections Congress in San Francisco, the LMC considered, in addition to an exhibit table and a breakout session, among the usual, considered sponsoring wireless access at the meeting.[[506]](#footnote-506) TO HERE

Region Life Member Coordinators.

Raising awareness of the LMC at Section Congresses was just the tip of a large iceberg of activities that the committee was undertaking to promote the creation of Life Member groups and activities within the Sections. The LMC worked simultaneously to develop Life Member units at the Regional level as well as clubs and committees at the local level. The formation of local clubs marked a shift in the emphasis of the LMC that was taking place to better serve and represent Life Members.[[507]](#footnote-507)

The interest of the LMC in establishing Regional Life Member committees was piqued in 1995, when Chairman Saad reported that he had received a letter suggesting the setting up of Regional Life Member units. The committee was in favor of their formation, because they would improve communication among Life Members. However, they saw the Regional Life Member committees as "an organized effort of LMs on a local level" and proposed placing an article in the newsletter asking for comments from Life Members.[[508]](#footnote-508)

In 1997, the LMC discussed and strongly supported the development of Life Member activities within Sections and Regions through the establishment of Life Member Clubs. These would become Affinity Groups in later years. Arthur W. Winston agreed to present this proposal to the Regional Activities Board at its November 1997 meeting. The LMC also formed an ad hoc committee to prepare an action plan for the introduction of Life Member Chapters in the Regions and Sections in 1998.[[509]](#footnote-509)

The formal effort to start up the formation of Life Member Chapters began with the distribution of a letter to all Region Directors in January 1998. Based on membership statistics, Irving Engelson reviewed a funding proposal for Life Member Chapters and recommended authorizing $30,000 for these activities.[[510]](#footnote-510)

The plan was to have each Region Director name a Region Life Member Coordinator, who, with the advice and consent of the Region Director, would coordinate the Life Member Committee program. The Coordinator would administer funding for the Chapters. Each year, the Region Life Member Coordinator would provide a written report to the LMC on Chapter activities in the Region and an accounting for the funds spent on those activities. Also, Life Members Chapters would be encouraged to seek additional funding from other sources. Ted Saad suggested that a "Best Practices” article be included in the Life Members newsletter as Chapters gain experience.[[511]](#footnote-511)

By April 1998, two Regions (Regions 1 and 5) had appointed Life Member Coordinators, Ted Saad and John Martin, respectively, both of whom were or had been members of the LMC. Chairman Dick Jaeger asked Daniel R. Benigni, Vice President of the Regional Activities Board, to put this issue on his board's agenda for its June 1998 and to reinforce the importance of these appointments to the Region Directors. By the October 1998 meeting of the LMC, only four Regions had not appointed a Life Member Coordinator. Chairman Jaeger stated that he would contact those four Regions and request that they appoint someone as soon as possible. LMC member Daniel W. Jackson now took charge of the effort to stimulate the formation of Life Member Chapters.[[512]](#footnote-512)

From Chapters to Affinity Groups.

As the number of Life Member Chapters began to grow, the Life Members Committee faced the task of setting forth procedures for their operation and other stuff. At the LMC April 1999 meeting, Daniel Jackson, the LMC liaison to the Regional Life Member Chapter Coordinators, presented information on Life Member Chapters that had been prepared for distribution to Region Life Member Chapter Coordinators and Life Member Chapter Chairs. It explained how to set up a Life Member Chapter, funding guidelines, and other matters. Life Member Chapters, the material stated, were "a subunit of the IEEE Life Members Committee established upon petition to the Regional LM Chapter Coordinator & with the cooperation of the section Chair." Life Member Chapters, moreover, were "a special type of "Affinity Groups" as covered in the regional Activities Board Operations Manual."[[513]](#footnote-513)

The LMC pulled development of Life Member Chapters into the networks of sociability—the newsletter and website—that the committee maintained for Life Members. A list of Life Member Chapters and their Chairs would be posted on the website, and the LMC would encourage Chapter Chairs to submit articles for inclusion in the newsletter. In 2006, the LMC approved the policy of using the newsletter for promoting contributions to and publicizing projects funded by the Life Member Fund as well as for promoting the formation of groups and publicizing their activities.[[514]](#footnote-514)

By 2003, the operational guidelines of the Life Member Chapters were starting to need some fine tuning, especially those regarding the approval of expenditures over a certain amount and the size of the annual Chapter budget allotted by the LMC. The LMC Strategic Plan called for the committee to take an active role in encouraging the establishment of Life Member Chapters in the Sections. So, in 2004, at the suggestion of Jacob Baal Schem, the LMC formed an ad hoc committee composed of Baal-Schem (Chair), Eduardo Bonzi-Correa, and Edward Altshuler (Past LMC member) to review those operating procedures.[[515]](#footnote-515)

The Baal-Schem committee came up with several recommendations. The current practice was for the LMC to fund the Chapters, which were not considered to be official IEEE Affinity Groups. The LMC voted to continue with the status quo, but also approved the possibility of the LMC requesting that the Regional Activities Board consider Life Members Chapters to be Affinity Groups. Revisions to the Chapter procedures changed the duties of Regional Life Member Chapter Coordinators and revised the process for forming a Chapter.[[516]](#footnote-516)

The decision to leave the Life Member Chapters as subunits of the LMC apparently led to some confusion on how Life Member Chapters operated according to comments made at Regional meetings. The LMC therefore decided to petition the Regional Activities Board to allow the establishment of Life Member Affinity Groups in 2005. As of June 2005, all new and old Chapters were known officially as Life Member Affinity Groups.[[517]](#footnote-517)

Through the Life Member Affinity Groups, the LMC encouraged Life Members to contribute to the Life Member Fund and to become more involved in IEEE affairs and in other activities of benefit to IEEE and to society.[[518]](#footnote-518) One way to encourage more Life Members to be active at the local level was to incentivize the Life Member Affinity Groups. In 2008, the LMC began to formulate a program to recognize outstanding performance by Life Member groups. The recognition would be based on the number of meetings held by the Affinity Group, the average attendance at meetings, and the number of contributors to the Life Member Fund. After some discussion, the LMC voted to support the Life Member Group Recognition Program. The newsletter would announce the top performers.[[519]](#footnote-519)

LIFE MEMBERS INTERNATIONAL

Encouraging and sponsoring Life Member Chapters at the Section level raised questions about what to do with Life Members living outside of North America. The IEEE predecessor societies, the AIEE and the IRE, had their origins in the United States, but their membership numbers grew in Canada which became IEEE Region 7, and the IRE had members and sections in Europe, Latin America and Japan. What about Life Members in Region 8 (Africa, Europe, Middle East), Region 9 (Latin America), and Region 10 (Asia and the Pacific)? As the Life Members Committee pursued the incorporation of these Life Members into Chapters, they encountered problems that were unique to these regions. But, they also discovered new ways to help Life Members and electrical engineering students in those countries.

During the 1990s, the IEEE was trying to represent itself as an global body. Already, in 1988, the IEEE had opened its first student branch in China, and the Board of Directors had endorsed a range of new member services aimed at helping members in Regions 8, 9, and 10 to overcome language, currency and cultural barriers in obtaining the benefits of member services. Global membership was growing. From 1989 to 1999, for example, the percentage of student members outside the United States rose from 22.5% to 35.2%. While membership was rising in all IEEE regions, Region 10 (Asia and Pacific) saw the highest growth rate. Student member numbers continued to fuel the climb in membership, and by 2004, Region 10 had become the largest IEEE region.[[520]](#footnote-520)

In 1994, the push to emphasize the transnational nature of the IEEE led the Nominations and Appointment Committee to express concern over the fact that the Life Members Committee had no representatives from outside the United States. Chairman Ted Saad noted that the LMC should give some recognition to Life Members outside the United States, of whom there were at that time about 1,190 outside North America. But, the LMC had no idea how many of them contributed to the Life Member Fund. Chairman Saad published an editorial letter in the newsletter about serving Life Members overseas and received 14 responses.[[521]](#footnote-521)

Subsequent discussions of the LMC's role noted that the committee represented all Life Members. They decided that it was not necessary for "a non-US representative" to specifically serve on the LMC. After all, the majority of Life Members at the time lived in the United States, just over 90% of them in 2004,[[522]](#footnote-522) so they were being consistent with where the members were. The Board of Directors 1996 Review group brought up the issue once again and suggested naming an ex officio member from among the Directors of Regions 7, 8, 9 or 10. It would be necessary to schedule LMC meetings for the convenience of that individual. The LMC agreed to explore this approach.[[523]](#footnote-523)

In 1995, the Life Members Committee championed older members in Regions outside North America who were affected by the recent change in the requirements for Life Member status. As we saw above, the IEEE was phasing in a new algorithm that, over a period of five years, would abolish the age qualification and would raise the required number of dues-paying years from 35 to 40 by 1998.

LMC Chairman Ted Saad told the IEEE Foundation that the new formula was having a negative impact on members outside North America, especially in those countries where IEEE membership had not been possible for many years. Moreover, the new rules also had caused "much anguish" among IEEE members who were about to become Life Members based on the old criteria. In December 1995, the Board of Directors considered the life membership question and voted to restore, as an alternate qualification for life membership, the "old rule-of-100" for those who were IEEE members before the new bylaw was passed in 1994. The algorithm problem was solved. [[524]](#footnote-524)

In 1999, a few years later, the LMC was discussing the difficulties of setting up Life Member Chapters outside the United States. In some cases, IEEE Sections did not have enough Life Members to establish a Chapter or a large geographic area separated Life Members. The first step toward increasing the number of overseas Chapters was to ascertain where Life Members resided and to identify an individual to promote the creation of Chapters. LMC Chair Dick Jaeger and Daniel Jackson, the Life Member Chapter Coordinator, debated different approaches to stimulating Life Member local activity. They contacted the Directors from Regions 8, 9 & 10 to gather their thoughts on forming Life Member Chapters in their Regions.[[525]](#footnote-525)

It quickly became apparent again that establishing Life Member Chapters outside North America would run afoul of life membership eligibility requirements. Irving Engelson, who joined the LMC in 1998, knew IEEE members in China and received a message from Professor Zong Sha, IEEE Beijing Section head, in 2000 regarding those requirements. Formed in 1985, only 15 years earlier, the Beijing Section had a number of members who were over 70 years old and who had been members of their national societies for as long as 40 years, but they did not qualify for IEEE life membership because they lacked sufficient years of IEEE dues paying as a result of membership in the IEEE not being available earlier in their professional careers. Zong Sha hoped that perhaps exceptions could be made to the qualifications.[[526]](#footnote-526)

Irving Engelson pointed out that the IEEE already had made an exception regarding eligibility for the Fellow grade. Perhaps a similar exception could be devised regarding life membership. One possibility discussed was to lower the requirement that the sum of one's age and years of IEEE membership equal or exceed 100 years. Alternatively, the LMC could prepay the dues of those Beijing Section members who were over 70 years old and had been IEEE members since the Section's creation in 1985. The LMC asked Engelson to draw up a proposal, and the committee would look into the possibility of making exceptions for other areas of the world.[[527]](#footnote-527) The Beijing Section, then, would have become the prototype.

However, as LMC Chairman Arthur Winston explained: "We did not want to go back to the Board of Directors and say, 'Modify the definition of a Life Member.' We did not want to change it."[[528]](#footnote-528) Engelson proposed that the LMC pay the dues for Beijing Section members who were over 70 years old and who had joined the Section within 5 years of its founding. The LMC approved the proposal and agreed to pay those members' dues for seven years starting in 2001 and running to 2007, with the proviso that the committee would review the agreement annually.[[529]](#footnote-529) "It didn't take very much money," Winston recalled, "We developed a lot of good will with the elderly founders, if you will, of IEEE in China."[[530]](#footnote-530)

For the Students.

The pull of the LMC in a global direction also involved considering special projects for funding. For instance, the IEEE Educational Activities Board sponsored the Engineering Accreditation Around the World workshop in Espoo, Finland, in September 2003. The workshop's goal was to acquaint IEEE members, government officials, university leaders, industry executives, and others in Northeastern Europe with the principles of program accreditation and to describe existing accreditation systems. Although accreditation activities were very important to achieving IEEE goals, LMC members felt that the Educational Activities Board, not the Life Member Fund, should take the lead in funding the workshop. The LMC turned down the grant request, but did approve a smaller grant to help out with travel expenses for individuals invited from countries in Northeastern Europe.[[531]](#footnote-531)

On the other hand, the Life Members Committee was far more active in supporting student activities overseas, which was consistent with the use of the Life Member Fund since its creation decades earlier. For example, in 2002, the LMC gave matching funds to the Bombay Section student program to help final year engineering graduate students to give lectures on selected engineering technologies to upper grade high school students.[[532]](#footnote-532)

The LMC received a persistent proposal from the Region 8 Educational Activities Committee for a pre-college education workshop, Enhancing Activities in Science Education, held in Annecy, France, in October 2005. The first request, a preliminary proposal, submitted in 2003 was for an amount that exceeded the LMC's budget for Chapter activities. The following year, the LMC received a new proposal for the workshop and requested a more detailed budget and program. Ultimately, in 2005, the LMC turned it down, because the proposal had neither defined goals nor information on how Life Members or the LMC could benefit from sponsoring the effort.[[533]](#footnote-533) The LMC also declined requests for a workshop hosted by the Sweden section, You and the Future, which was canceled,[[534]](#footnote-534) and for the Perspectives on Soviet and Russian Computing Conference run by SoRuCom (Computer Technology in Russia and in the Former Soviet Union) and held in Russia in July 2006.[[535]](#footnote-535)

In contrast, requests to sponsor student activities in Region 9 (Latin America) were rather successful. In June 2003, the LMC received a request from the IEEE Foundation to consider providing support for the Region 9 Student Branch Regional Meeting to be held in Santiago de Guayaquil, Ecuador. The LMC gave its unanimous approval. Then, in 2004, the LMC agreed to provide funds for the Region 9 Student Branch Regional Meeting in Bahia, Brazil. It was an opportunity once again to develop student membership in Latin America. The LMC Chair declared that the LMC aspired to be a catalyst for the creation of projects that would make a lasting impression on electrotechnology and related fields by providing seed money. However, because the LMC had provided funding for this event in the past, the chair noted, it was unlikely that future funding requests would meet with approval.[[536]](#footnote-536)

FUTURE ELECTRICAL ENGINEERS

As the Life Members Committee entered the 21st century, the Life Member Fund continued its long-established funding of the student paper contest, now in all ten Regions. Serving all ten IEEE Regions was an aspect of many of the educational undertakings funded by the LMC. Several of the projects underwritten by the LMC addressed the issue of technological literacy, which was then coming into vogue as a general educational concern. The LMC sponsored a number of significant learning programs aimed at high school and pre-college students, and several initiatives aimed at early career engineers received LMC grants.

The Life Members Committee considered ways to expand student participation in the student paper contest,[[537]](#footnote-537) and starting in 2001, increased the money allotted to each Region for the contest by 50%.[[538]](#footnote-538) In addition, in 1999, the LMC provided support for one year for the establishment of new Student Branch Centers of Excellence, because the committee believed that the Centers were "important for students because they keep the IEEE prominent."[[539]](#footnote-539) The program began in 1997 but was restricted to universities in the United States. In March 1999, the IEEE Foundation Board gave its okay to expanding the program to all ten Regions. The LMC gave its backing, because they supported its expansion into Regions outside the United States.[[540]](#footnote-540) In 2000 and 2001, the Life Members Committee renewed its support,[[541]](#footnote-541) but the program spent only a fraction of the amount allocated.[[542]](#footnote-542) Also in 2000, the LMC provided a grant that enabled completion of the Student Profile and Assessment Record (SPAR) website. Students input their information on a regular basis, and faculty could access those records to write up reports as well as keep an online “profile” of each engineering student.[[543]](#footnote-543) Several universities were interested in the beta test, which was scheduled to begin in 2001.[[544]](#footnote-544)

Technological Literacy.

The Life Members Committee started to underwrite efforts to raise technological literacy in 1998, when it supported the two-day Technological Literacy Counts Workshop held in Baltimore that year. The workshop brought together engineers and educators from as far away as the United Kingdom, South Africa, and India to promote the advancement of technological literacy in primary and secondary schools worldwide.[[545]](#footnote-545) The LMC funds went toward the workshop proceedings[[546]](#footnote-546) and a video intended to report on the outcomes of the workshop.[[547]](#footnote-547)

In 2001, the LMC provided grant money to the Deans Summit on Technological Literacy, held in Baltimore that year. The Summit brought together Deans of Engineering and Deans of Education from the same institution to discuss ways of preparing elementary and secondary school students to be technological literate in a world of rapidly changing technologies.[[548]](#footnote-548) Subsequently, in 2002, the LMC provided funds for faculty travel to and publicity for the Colleges of Education and Engineering: Fostering Campus Collaborations Conference, which attempted to build on the success of the 2001 Deans Summit.[[549]](#footnote-549)

The LMC also helped to expand a pilot program known then as Engineers Promoting Technological Literacy Through In-Service Programs. IEEE members from the Florida West Coast Section had developed and implemented an in-service training program for teachers from local school districts. The LMC provided funding in 2001 and 2002 for the “start-up” costs of participating Sections, the development of a training module, and program-related travel. In 2003, they channeled the funds into developing presentation topics into a lesson plan format for teachers and engineers, which was placed on a website for widespread distribution.[[550]](#footnote-550) Today, the program is known as the IEEE Teacher In-Service Program (TISP).[[551]](#footnote-551)

Pre-College Training.

The Life Members Committee also provided long-term, sustained support for a key educational effort aimed at secondary school students that continued the work begun with the distribution of "The Miracle Force" videocassette to middle schools and high schools.

Project RE-SEED (Retirees Enhancing Science Education through Experiments and Demonstrations) was, and still is, a program at Northeastern University (Boston) begun in 1991 to train science and engineering professionals to work as volunteers who assist instructors in upper elementary and middle school science classrooms with teaching the basic concepts and principles of the physical sciences using some engineering applications. Participants help out in science classrooms one day a week for one school year.[[552]](#footnote-552)

RE-SEED attracted the interest of Arthur Winston, who had a great interest in efforts to bring together engineers and teachers and who joined both the IEEE Educational Activities Board and the Life Members Committee in 1996.[[553]](#footnote-553) One of the organizations funding RE-SEED was about to drop its support, so Winston took it upon myself to see if he could get them funds and additionally to try "to see whether we couldn't put it into practice with IEEE retirees."[[554]](#footnote-554)

He brought RE-SEED to the attention of the Life Members in 1996, after RE-SEED had been in operation for five years. Chairman Ted Saad distributed RE-SEED information to LMC members and announced that he would be attending a national meeting in April 1996 on how to establish RE-SEED centers with the intention of informing RE-SEED leaders that the LMC was interested in contributing to and participating in the project. He saw the project as having two benefits of interest to Life Members: It was a project for Life members, and it promoted interest in science and engineering among middle school students.[[555]](#footnote-555)

As a result of Saad's undertaking and Winston's initiative, RE-SEED submitted a request for funding over three years to aid them in expanding and operating the program. While Winston and several other LMC members spoke in favor of the project, noting its success and similarity to the types of programs the LMC wanted to fund, others raised a number of questions about the proposal, such as the association that RE-SEED had with Northeastern University and the three-year commitment to funding. Others had issues with the fact that electrical engineering represented only 10% of the materials covered, while the proposal was asking the LMC to provide 20% of their budget.[[556]](#footnote-556)

Arthur Winston explained that the two RE-SEED organizers were originally physicists, which accounted for the hybrid physics and electromagnetic research curriculum. If Winston were a representative to the project, he could bring the LMC’s views to RE-SEED and have them integrated into the curriculum. He also could provide the LMC with an annual review of RE-SEED activities and funding. As a result, the LMC voted unanimously to fund RE-SEED for one year with the intention of continuing the funding and to designate Winston as its RE-SEED liaison. After one year, he would provide a progress report that would include the number of IEEE members involved.[[557]](#footnote-557)

Through the efforts of Arthur Winston and the LMC, the RE-SEED program spread outward from New England across the United States, and the number of IEEE member volunteers multiplied. Initially, few RE-SEED volunteers were IEEE members.[[558]](#footnote-558) To raise awareness of RE-SEED among IEEE members, Winston had the LMC reallocate the funds earmarked for the ELECTRO 1997 hospitality suite for the creation of an exhibit booth and banner for the partnership between the LMC and RE-SEED.[[559]](#footnote-559) After meeting with RE-SEED leaders in March 1997, Winston made his goal increasing awareness of RE-SEED within Region 1 (New England, New York, and most of New Jersey). Because RE-SEED hoped to expand beyond New England, Chair Dick Jaeger suggested that the plan to establish Life Member Clubs in the Sections could lead to a cooperative endeavor between LMC and RE-SEED. The Life Member Clubs would provide volunteers, and RE-SEED would provide materials, training, and local coordination.[[560]](#footnote-560)

By the October 1997 LMC meeting these efforts were beginning to pay off. Arthur Winston reported that 37 IEEE members in New England had volunteered their time to RE-SEED. They learned about it via the Life Members' newsletter, the ELECTRO exhibit, and a Life Member mailing. Furthermore, RE-SEED was starting to spread across the country. A Life Member in the Denver area was instrumental in the eventual establishment of a regional RE-SEED center in Denver.[[561]](#footnote-561) The effort to set up new Life Member groups in the Sections became a vehicle for spreading RE-SEED in new areas. When the LMC learned of a Life Member Chapter in a Section, the committee informed RE-SEED of its existence and provided contact information, and RE-SEED furnished materials and training to the Life Member Chapters, if requested.[[562]](#footnote-562) A number of RE-SEED centers were set up in this way with the help of Life Members,[[563]](#footnote-563) and Christos Zahopoulos, one of the founders of RE-SEED at Northeastern University along with the late Alan Cromer, acknowledged that LMC financial support was vital for RE-SEED's nationwide expansion.[[564]](#footnote-564)

By October 1999, when RE-SEED submitted a new proposal to the Life Member Fund, the program had established four regional centers outside of New England (Alabama, Colorado, Maryland, and Virginia).[[565]](#footnote-565) LMC funding had been critical for the expansion of RE-SEED outside of Massachusetts.[[566]](#footnote-566) The money requested in 1999 would support the program in 2000, with the expectation that additional funding would continue in 2001 and 2002. The LMC approved the grant and agreed that Life Member Chapters should be strongly encouraged to become involved in RE-SEED.[[567]](#footnote-567) Subsequently, the LMC okayed funding for 2001, 2002, [[568]](#footnote-568) 2003,[[569]](#footnote-569) and 2004.[[570]](#footnote-570)

Approval for the 2004 money came with a proviso. LMC members wanted RE-SEED to provide a "specific list of what tasks will be accomplished" with the funds, as the vote in favor of the RE-SEED grant was by simple majority.[[571]](#footnote-571) When the LMC reviewed the RE-SEED report during its March 2004 meeting, the LMC Chair, Om P. Malik, noted that the report failed to "clearly state where LMC funds are allocated." He suggested that the LMC review the RE-SEED program.[[572]](#footnote-572) Arthur Winston and others who had supported RE-SEED no longer served on the LMC. Subsequently, at its October 2004 meeting, the LMC observed that RE-SEED had been using its funding for operating expenses. The LMC provided a reduced amount of support and, while not ruling out consideration of any future grant requests, the LMC did not anticipate continuing funding the project "on an on-going basis."[[573]](#footnote-573)

At the LMC's March 2005 meeting, when the committee turned down RE-SEED support for 2006, George McClure recalled that LMC guidelines for awarding grants stipulated that the funds were intended "to be catalysts to stimulate further funding, to be used as seed money, or for costs of one-time program expansion." The LMC had been provided funding since 1997, and continuing its support of RE-SEED would be contrary to those guidelines.[[574]](#footnote-574) The LMC was "pleased with the program, and they really liked it," Dan Toland recalled. "Honestly, I think they would’ve continued to fund it, but it was more a question of policy."[[575]](#footnote-575)

Other Pre-College Projects Supported.

In the end, RE-SEED received Life Member Fund support for nine consecutive years. It was the longest running, but not the only project aimed at pre-college students that the LMC funded.

In 1999, for example, IEEE Educational Activities requested a grant to disseminate the Pre-college Engineer Training (P.E.T.) pilot program. The program's goal was to develop a training and resource model to help engineers work better with pre-college educators. The funding would go toward distributing material at a session during the 1999 Sections Congress that would be introducing the P.E.T. project as well as toward reports on the pilot results, and the beta test by the IEEE North Jersey Section. The LMC approved funding for 1999.[[576]](#footnote-576)

In 2002, the LMC received a funding proposal for Saturday Academy’s Apprenticeships in Science Engineering (ASE) Program. Founded in 1983 and associated with the Portland State University (Oregon), Saturday Academy operates various educational programs for students in grades 2 through 12 in many disciplines, but with an emphasis on science, technology, engineering, and math (STEM).[[577]](#footnote-577) The Apprenticeships in Science and Engineering program brings together high school students and professional scientists and engineers for eight-week, full-time summer internships in a professional, scientific, or engineering setting.[[578]](#footnote-578)

The IEEE Foundation already had agreed to fund the proposal. The request was for the LMC to provide additional funding. LMC members felt that the Apprenticeships in Science and Engineering was an excellent program. The LMC waived the requirement for submitting a formal proposal, but a motion to approve funding and request a formal proposal met with defeat.[[579]](#footnote-579) However, in 2005, despite inconsistencies in the proposal, the LMC approved funding for two apprenticeships each year for three years beginning in 2005, with the funds going to cover salary and overhead expenses.[[580]](#footnote-580)

In 2003, the LMC gave funding to two endeavors involving pre-college students. One was a longitudinal study of the National Engineers Week (EWeek) Future City Competition requested by the IEEE Foundation.[[581]](#footnote-581) The other came from the IEEE Educational Activities Board for a two-day workshop called Connecting Engineers with the Pre-College Community and aimed at IEEE Section volunteers in Region 8 (Europe, Middle East, Africa) and their outreach efforts to local pre-college educators and their students.[[582]](#footnote-582)

Going for the GOLD Members.

The grants awarded by the LMC also helped recent engineering graduates who were in the early part of their career. These "young" engineers had been the focus of IEEE programs since at least 1970, when the ad hoc Committee on Professional Concerns of Young Engineers, which included ten young engineers, recommended specific measures for encouraging them to participate more actively in the IEEE and for serving the technical, societal, and career objectives of electrical engineering students and young professionals more vigorously.[[583]](#footnote-583) The Life Member Fund Committee agreed to provide travel money for the committee to attend authorized meetings during 1970.[[584]](#footnote-584) The LMFC also contributed toward a project, the development of a slide-tape presentation, intended to increase membership by helping to retain more recent engineering graduates as active IEEE members in 1973 and 1974.[[585]](#footnote-585)

In 1995, the IEEE created Graduates of the Last Decade (GOLD), a program developed to help student members transition to young professionals. GOLD offered programs and services to graduating students, recent graduates and young engineers and today is known as the Young Professionals Program.[[586]](#footnote-586)

The Life Members Committee began helping early-career engineers in 1997, when it received a proposal from the PACE Young Professionals program for partial funding of its September PACE conference activities. PACE (Professional Activities Committees for Engineers) is a grassroots network of IEEE volunteers and committees whose goal is to promote the professional interests of members.[[587]](#footnote-587) The funding request would allow additional young engineers to attend the conference. The committee unanimously gave its support, with the caveat that the Young Professional sessions emphasize leadership development.[[588]](#footnote-588)

In 1998, the LMC stepped up its support of early-career engineers with an award to PACE Graduates of the Last Decade to allow them to attend 1998 PACE Professional Activities conference, which featured a series of sessions specifically for GOLD members on leadership development.[[589]](#footnote-589) In addition, the LMC approved funding the attendance of 20 GOLD members, "primarily women," to the 1999 International Symposium on Technology and Society, “Women and Technology, Historical, Societal, and Professional Perspectives,” which was sponsored jointly by the IEEE Society for the Social Implications of Technology, the IEEE History Center, and the IEEE Women in Engineering Committee.[[590]](#footnote-590)

The LMC continued to back GOLD members’ attendance at PACE professional development conferences in 1999[[591]](#footnote-591) and 2000.[[592]](#footnote-592) But, in response to a 2001 request to fund the Student-GOLD Fast Response Project, a pilot project to provide funding for student and young professional initiatives requiring a “quick response,” LMC members deferred action. They wanted more information about the program and wanted to know specifically why the proposal had not gone to the IEEE Foundation Board instead.[[593]](#footnote-593) The year 2000 was the last time that the LMC underwrote GOLD member attendance at a professional development conference.

Meanwhile, however, the Life Members Committee had begun supporting the Washington Internship for Students of Engineering (WISE), an IEEE program initiated in 1980 that provides an opportunity for engineering students to learn how government officials make decisions on complex technological issues and how engineers can contribute to legislative and regulatory public policy decisions by spending ten weeks in Washington, DC.[[594]](#footnote-594) In 1998, the IEEE Technical Activities Board and IEEE-USA each were sponsoring a WISE intern, when the LMC received a request to underwrite an intern on an ongoing basis. The committee agreed on the value of the program, but furnished only one year of funding for 1999 and stipulated that IEEE-USA would have to apply for funds again in subsequent years.[[595]](#footnote-595) The LMC approved funding later for 2000 and 2001[[596]](#footnote-596) and has continued to support a WISE intern up to the present as one of the committee's regular expenses, like the Student Prize Paper Contest, the Fink Prize Paper Award, and the newsletter.[[597]](#footnote-597)

VIRTUAL HISTORY

The close relationship between the IEEE History Center and the Life Members Committee continued even as the History Center relocated in 2014 at the Stevens Institute of Technology in Hoboken, New Jersey, with the ending of its agreement with Rutgers University.[[598]](#footnote-598) Also, there were frequent proposals for the LMC to work closely with the History Committee, for example, as joint sponsors of an IEEE history conference.[[599]](#footnote-599)

The Life Members Committee continued to underwrite oral histories, the History Center summer graduate intern, the IEEE SHOT History Prize, and the history fellowship,[[600]](#footnote-600) but not without considering the possibility of some changes. In 2006, for example, the committee agreed to double the cash value of the history prize and to name it after Bernard S. Finn, a long-time consultant to and member of the History Committee who had served as Curator of Electrical Science and Technology at the Smithsonian Institution.[[601]](#footnote-601) In 2008, the committee also considered giving the history fellowship a new name, the IEEE Life Members Fellowship in Electrical History, because of concern over increasing the publicity that the LMC received for supporting the program.[[602]](#footnote-602)

Quasi-endowment.

The LMC continued to support History Center projects, but now considered a new way to fund them. The idea, first proposed in 1996, was for the LMC to provide a specific amount of money to the History Center and let them use it as they wished within the general guidelines of the Life Members Committee. This so-called quasi-endowment was similar to the one that the IEEE Foundation awarded to the History Center. At the time, the LMC was a committee of both the Foundation and the IEEE Board of Directors. Committee members approved a motion to consider the possibility of a quasi-endowment of the IEEE History Center, with the provision that the LMC would continue to reserve a certain amount of funding for pre-college activities.[[603]](#footnote-603)

However, at its October 1996 meeting, the Life Members Committee turned down the idea. Eric Herz, IEEE Director Emeritus and member of the LMC,[[604]](#footnote-604) laid out the case for the quasi-endowment. He explained that it included a fundraising element called planned giving which would require the LMC to hire a consultant and to develop literature with help from a legal counsel. Also, it would take about seven years to develop returns from a large gift. Herz suggested that the LMC maintain its current method of funding the History Center on a project-by-project basis. The LMC agreed.[[605]](#footnote-605)

The LMC returned to the idea of a History Center quasi-endowment in 1998. Emerson W. Pugh, former IEEE president and currently chairman of the History Committee,[[606]](#footnote-606) told the committee about a different approach. He explained that the objective of establishing the endowment was to retain top-quality professional staff at the History Center and to enable long-range planning. Contributors included the IEEE General Fund, the Foundation, various IEEE Societies, members, and industry. The History Center this time was not requesting the LMC to set up a separate quasi-endowment, but rather to contribute $100,000 to the established one. Pugh suggested that the committee donate half in 1998 and $25,000 in 1999 and 2000, subject to status reports from the IEEE History Center. After some discussion, the LMC agreed that the amount of money was reasonable and approved the donation unanimously. The top priority of the endowment was to make the Center's minimal operations self-sufficient. A Memorandum of Understanding between the IEEE Foundation and the Board of Directors in 2007 covered the basic operations of the History Center through the IEEE Foundation.[[607]](#footnote-607)

IEEE Virtual Museum.

The largest historical project that the Life Members Committee underwrote was the IEEE Virtual Museum. The idea grew out of an IEEE Foundation and Awards Board retreat held in 1998. It purpose had been for the Foundation to develop plans to expand the number and range of worthwhile projects that might receive support. Among those attending were representatives of the Life Members Committee and the History Center. One initiative, proposed by 1999 IEEE President Kenneth Laker, was an IEEE Virtual Museum, and it emerged as one of the retreat's most popular ideas.[[608]](#footnote-608)

Emerson Pugh, charged with moving the idea forward, brought the idea to the September 1998 meeting of the History Committee, which decided to charge the IEEE History Center staff with writing a proposal to the Foundation to fund a study what an IEEE Virtual Museum would be and how IEEE would go about planning one.[[609]](#footnote-609)

Consequently, with funding from the IEEE Foundation, a two-day Virtual Museum Workshop took place in June 1999 under the auspices of the Smithsonian Institution’s National Museum of American History thanks to Barney Finn and others. It attempted to define in general and specific terms what was meant by the expression "virtual museum." The workshop participants agreed that the virtual museum should have two central and complementary missions: To increase public knowledge and appreciation of the history of IEEE technologies and their impact on society, and to increase public understanding of how those IEEE technologies work (that is, to promote technological literacy). The content of the virtual museum had to be both international and multicultural, and its primary audience should be students 10-18 years old and their teachers. As Arthur Winston explained: "The whole philosophy was: the IEEE doesn't have any hard objects to make a museum, but there are certainly a lot of things that could be done in making a virtual museum."[[610]](#footnote-610)

Workshop participants felt that the History Center should request funding from the Foundation. Consequently, at its November 1999 meeting, the Foundation approved a grant of $230,000 to launch the IEEE Virtual Museum. However, in March 2000, Emerson Pugh, concerned about the prospects of raising enough money for the project in less than two years, advised extending the Foundation's promised funding from two years to four years. He recommended that the Foundation replace its original commitment to fund the project with $105K in 2000 and $125K in 2001 ($230K total) with a new one that gave $60K per year for 2000 through 2003 ($240 over four years), with the proviso that the Trustees of the History Center and the Life Members Committee together (or other IEEE entities) agreed to provide $45K in 2000 and $65K per year from 2001 to 2003. If the supplemental underwriting was not forthcoming, Pugh proposed that the Foundation's original commitment of funding over two years remain in force. The Foundation passed his motion. Pugh agreed to request commitments of support from the Trustees of the History Center and the Life Members Committee and to communicate these plans to the IEEE Treasurer.[[611]](#footnote-611)

The Life Members Committee in April 2000 approved an award to the History Center to realize the IEEE Virtual Museum with the understanding that it would consider future requests for more money contingent on receiving satisfactory progress reports. The LMC thus joined the Trustees of the History Center in supporting the project. Kim Breitfelder, the Virtual Museum project manager at the History Center, demonstrated the Virtual Museum website before the LMC during its April and October 2001 meetings. The project was doing well and on schedule to open in early 2002. Satisfied with the progress made, the LMC approved funding for 2001 and 2002, as the Virtual Museum successfully went public in February 2002.[[612]](#footnote-612)

In 2003, the History Center asked for additional Virtual Museum funds because of difficulties in raising external backing from corporations and foundations. The Life Members Committee as well as the Foundation and the History Center Trustees agreed to increase their contributions to maintain and develop the Virtual Museum. Later in 2003, the LMC approved a larger grant for 2004, but subject to the provision that, if the History Center succeeded in raising outside money, they would return a proportional amount to the Life Member Fund. The LMC applied the same condition to its 2005 and 2006 contributions to the Virtual Museum to improve its functionality and aesthetics, as external funding remained elusive. By 2006, the IEEE had provided a total of around $1.2 million since the project's inception in 1999. The total LMC contribution had amounted to $160K.[[613]](#footnote-613)

The Virtual Museum, Arthur Winston explained, "never really took off. It got going for a couple of years and then no one made funding for it. . . . I think that there were some—I'll call them competing-type—things out on the web of a science nature. I think the complaints were that it sort of lacked excitement and personality."[[614]](#footnote-614)

In 2007, the Virtual Museum was coming to an end. Although the History Center constantly was receiving requests from IEEE members in academia to use or reproduce part of the Virtual Museum site, web content standards and the strategic goals of the IEEE and its History Committee were changing. In its place, in 2008, the History Center developed, with an IEEE New Initiative grant, a wiki-based website called the IEEE Global History Network (GHN). The Virtual Museum content migrated to the GHN. The beta version of the GHN rolled out in September 2008 at the IEEE Sections Congress in Quebec City. Over its eight-year lifespan, the Virtual Museum had over 5,000,000 visits. It clearly raised the visibility of IEEE and improved the image of the engineer.[[615]](#footnote-615)

The Life Members Committee also helped to underwrite the Global History Network. The goal of the new website was to encourage and enable participation in IEEE’s historical mission by promoting collaboration by individuals and organizations worldwide within a wiki-based environment. It encompassed all existing IEEE historical materials as well as new materials developed through collaboration. Enabling IEEE members to participate in the development of the website's content gave IEEE members increased value and enjoyment as well as a sense of participating in preserving their own history. Members of the LMC participated in the beta phase of the Global History Network.[[616]](#footnote-616)

The GHN has been very successful. As of 1 January 2015, it is being expanded into a site involving multiple engineering societies and the history of all areas of engineering and technology. It will be known as the Engineering and Technology History Wiki.[[617]](#footnote-617)

Special Projects.

The Life Members Committee continued to fund numerous special projects. One, from the Nikola Tesla Museum in Belgrade, reflected the long relationship between that museum and the IEEE History Center. In 1991, following the fall of the Soviet Union, the History Center brought over Zorica Civric, a curator at the museum, as a summer intern. The Tesla Museum approached the LMC for funding after the IEEE Foundation declined their proposal in November 2003. The museum proposed to microfilm their archives relating to Tesla and to digitize the microfilm images in parallel with the filming. The Foundation believed that it was a very worthwhile project, but they had limited funds to deal with what they described as "a large number of excellent proposals." The Foundation therefore turned to the Life Members Committee for possible funding. The LMC agreed to provide partial funding starting in July 2005.[[618]](#footnote-618) In 2003, the LMC also funded a historical study of Soviet quasioptics research in the near-millimeter and sub-millimeter ranges on the endorsement of past members of the IEEE Microwave Theory and Techniques Society. This became a chapter in a history of wireless.[[619]](#footnote-619)

Yet other funding requests approved dealt with milestones in the history of telecommunications. In 2006, for instance, the LMC gave a grant to the IEEE Boston Section to support its telephone milestone celebration and award ceremony for the “First Transmission of Intelligible Speech over Electric Wires.”[[620]](#footnote-620)

Another grant request approved was for the 2009 IEEE Conference on the History of Technical Societies organized by the History Committee and the History Center and which took place in Philadelphia. The conference brought together members of IEEE engineering societies and historians of technology.[[621]](#footnote-621)

One special project of note was a small radio telescope. Initially, the project came to the LMC in 2007 as a grant request from the Life Member Affinity Group of the IEEE Daytona Section to support the construction of a small radio telescope from a commercially available kit for teaching astronomy and encouraging interest in engineering at Seabreeze High School in Daytona Beach. The LMC approved the funding, fundamentally because it was an educational tool. On 21 February 2008, in conjunction with the LMC's February 2008 meeting in Orlando, Florida, members visited the small radio telescope built by the Life Members Affinity Group and funded by the Life Members Committee.[[622]](#footnote-622)

Its placement in the Daytona Beach Museum of Arts and Sciences enabled it to become part of an educational program aimed at both students and adults as part of the planetarium program. As Dan Toland explained: "That was actually an opportunity for the Life Members to visit and actually see the results of their donations, because that’s something that we, as a whole, didn’t necessarily see, certainly not in person. It was actually a good opportunity for all the committee members to actually appreciate what they’re doing, and they could actually see how it was being implemented, and see the effects that they’re having on the children who were going to the children’s museum."[[623]](#footnote-623)

INTO THE 21ST CENTURY

As the Life Members Committee entered the 21st Century, the committee no longer reported directly to the Board of Directors as a result of the reorganization taking place within IEEE in 2001. The new structure assigned the Life Members Committee to the Regional Activities Board primarily to streamline the decision-making process by reducing the number of committees reporting directly to the Board of Directors.[[624]](#footnote-624) Subsequently, in 2010, the Board of Directors made the LMC a standing committee of the Member and Geographic Activities Board, the successor to the Regional Activities Board. The committee no longer reported directly to the Board of Directors.[[625]](#footnote-625)

All the same, the Life Members Committee continued to support its core programs: the Student Paper Prize Contest, the Life Member newsletter, the Graduate Fellowship in the History of Electrical Engineering, the Graduate Student Summer Intern Program, the Life Member Prize in Electrical History, the Donald G. Fink Prize Paper Award, and the Washington Internship for Students of Engineering (WISE).[[626]](#footnote-626) To these, the LMC added the IEEE Life Members Graduate Study Fellowship in Electrical Engineering established by the Board of Directors in 2000. The IEEE awards the fellowship annually to a first year, fulltime electrical engineering graduate student enrolled in a recognized engineering school. The LMC continues its support of the fellowship today.[[627]](#footnote-627)

After more than a decade, the Life Member Fund once again sponsored the IEEE Education Medal, known since 1999 as the James H. Mulligan Medal. In 2002, after some debate, the committee voted in favor of providing 2003 support only and gave no underwriting between 2004 and 2006, when Pearson Prentice Hall (Pearson Education, Inc., since 1998), The National Instruments Foundation, Xilinx, Inc., and MathWorks funded it. In 2007, the LMC returned as a medal co-sponsor along with MathWorks, Pearson Prentice Hall, and the National Instruments Foundation and has continued to share its support with MathWorks and Pearson Education to the present.[[628]](#footnote-628)

As it entered the 21st century, the LMC membership took on a transnational flavor, with the arrival of members (and chairs) from outside the United States in Region 8 (Europe, Middle East, Africa), Region 9 (South America), and Region 10 (Asia and Pacific). The first to arrive in 2002 was Eduardo Bonzi Correa (Region 9), who had been a Region 9 Director in 1986. Another Region 9 Director, Luis T. Gandia, joined the LMC in 2007 and was Chairman (2008-2009). In addition, Om Malik (Region 7), Jacob Baal-Schem (Region 8), and Graeme B. Gwilliam (Region 10) joined the LMC in 2002, 2004, and 2008 respectively.[[629]](#footnote-629)

The Life Members Committee also met overseas, in 2009, in Buenos Aires, Argentina, in 2009, and Amsterdam, the Netherlands, in 2014. Technically, though, their first meeting outside the United States (Regions 1-6) took place in 2007 in Puerto Rico, which is in Region 9. Those meeting venues, though, represented a departure away from the decades-long practice of meeting in New York City at IEEE Headquarters and later on the IEEE campus in Piscataway, New Jersey.[[630]](#footnote-630) The LMC began to meet at locations beyond this metropolitan area and involved itself more and more with Life Members in the Sections. It was the idea of Luis Gandia, who became LMC Chair in 2008, that the LMC "really should start trying to go to the different Life Member groups to really kind of interact with them," Dan Tolland recalled. "Why don’t we try to travel to a place where we can interact with the Life Members, and have an opportunity to talk to them, and kind of raise awareness of the fund, and have people see why we’re spending the money? So we did start to move the meetings around to other areas of the world. We did have a meeting in San Juan, but then we also went to San Antonio, Texas, and Daytona, Florida, where the Life Members had sponsored a radio telescope.[[631]](#footnote-631)

Advocacy and Sociability.

The Life Members Committee remained an advocate of Life Members and older IEEE members, and the committee maintained and enhanced the means of advancing sociability among Life Members, who now had formed Life Member Affinity Groups in the Sections.

The newsletter remained a central means for maintaining sociability among Life Members. The LMC now distributed both a paper edition and an electronic (PDF) version. The committee also decided to post the newsletter on their website and to send an email message indicating that it was being distributed to all Life Members, all IEEE members 65 years and older, and retired IEEE members aged 62 through 64. LMC members also discussed the kinds of topics that they felt should and should not appear in it. Adding a list of donors to the LMF in 2010 expanded the newsletter from 12 to 16 pages in length, in order to accommodate over 4 pages of donor names. The LMC even considered establishing a Facebook page for Life Members.[[632]](#footnote-632)

The LMC polled Life Members with an occasional survey centered on a current issue. In 2002, for example, the LMC approved funding for a survey of Life Members that was distributed to Life Members in all regions. The LMC then set about how best to incorporate the survey results into its Strategic Plan. The LMC also surveyed all Life Member Affinity Groups to determine what activities were of interest to them and a survey of all Life Members to find out those activities that interested them.[[633]](#footnote-633)

The Life Members Committee remained an advocate for older IEEE members. For example, in 2001, the IEEE Infrastructure Oversight Committee proposed the possibility of establishing “Permanent Membership” in the IEEE. An individual would be able to make a one-time payment and become an IEEE member for life. Ironically, this was the original idea of Life Member status. LMC members were concerned that confusion might arise between this membership payment option and life membership. The committee voted to have the LMC Chairman inform the Infrastructure Oversight Committee that it did not object to prepaying membership dues, but it should not involve any reference to life membership in the IEEE.[[634]](#footnote-634)

In 2001, the Life Members Committee decided to have staff investigate the possibility of elevating Life Members from Associate to Member grade. By 2005, there were 887 Life Members who still held Associate Member grade and 14,339 Life Members who still held Member grade. The committee agreed that all individuals who were Life Associates qualified for Member grade and individuals who were Life Members probably qualified for Life Senior Membership. The committee therefore recommended that the Regional Activities Board address this issue. The LMC also worked to simplify the process for Life Members to apply for Life Senior Member status, the highest grade in IEEE for which a member could apply. In 2010, the LMC established an ad hoc committee to develop a process for assisting Life Members in applying for Senior Member status. They looked to the successful program conducted by the IEEE Central Texas Section as a model.[[635]](#footnote-635)

The LMC remained true to its charter, as the IEEE sought ways to reduce the cost of providing services to Life Members. One way was to change the eligibility algorithm. In 2002, a proposed bylaw change would have raised the minimum age for life membership to 70 and the age plus years of membership requirement to 105 by 2012. After some discussion, the LMC voted narrowly against the proposal and reported its decision to the Board of Directors.[[636]](#footnote-636) In 2003, the LMC expressed its belief again that the minimum age should remain 65. They further voted to express their strong opposition to raising the minimum age to 70 years and provided the Board of Directors with several reasons for their decision. Increasingly, people were retiring earlier, so if the IEEE raised the minimum age to 70, members would have to pay fees for more years, which would have a negative impact on donations to the Life Member Fund and other IEEE funds. Instead, the LMC recommended increasing the required span of membership years to 40 years, which would have the same effect of reducing the rate of increase in the number of Life Members receiving IEEE services. The LMC continued to monitor and consider proposed modifications to life membership criteria, each time deciding to preserve existing requirements.[[637]](#footnote-637)

When in 2002 the IEEE put forward a proposal to assess Life Members a fee to cover the rising costs of providing services, the LMC pointed out that the fee assessment might have a negative impact on the not unsubstantial donations to the Life Member Fund, the Foundation, the History Center, and other IEEE funds. The LMC advised taking no action. The number of "active" Life Members would fall off, they predicted, with the requirement initiated in 2003 that Life Members return their renewal invoice (a postcard) to remain “active.” If the member did not return the renewal invoice, the Life Members was considered to be inactive and did not receive any IEEE publications or receive an IEEE election ballot. This measure resulted in a 17.6% decrease in IEEE Life Members in 2003. Some of those dropped were deceased, but IEEE had no way of knowing it. Others were no longer interested, in some case because of poor physical or more likely mental health. This annual feedback mechanism continued to reduce the number of "active" Life Members over the following years.[[638]](#footnote-638)

One of the service expenses for Life Members that concerned the IEEE was their free subscription to *Spectrum*. Now the Board of Directors wanted to change the bylaws to require Life Members to pay for it. The LMC joined the Region 1 Board of Governors in asking the Board of Directors to rescind their action. In exchange, they added the provision that "beginning as soon as practical but no later than 2005," an online version of *Spectrum* be made available free of charge to Life Members. The Board of Directors rescinded their June 2003 decision to provide Life Members with only online publications and asked the LMC to prepare an electronic subscription incentive program for Life Members. The LMC Chair appointed a subcommittee—Julian Bussgang (Chair), Jacob Baal-Schem, John Meredith, James O'Neal, Richard Nichols, and Irving Engelson—to respond to the Board's request as well as to examine the definition and privileges of life membership. The subcommittee recommended that the IEEE consider introducing incentives for all members, not just Life Members, to switch to electronic subscriptions.[[639]](#footnote-639)

Making Ends Meet; Making Friends Meet.

Sociability was a key aspect of Life Member Fund finances, too. The Life Members Committee's social infrastructures (newsletter, website, conference activities) concurrently promoted social interactions among Life Members and encouraged more Life Members to contribute to the Life Member Fund. The contributions in turn provided the revenue stream from which the Life Members Committee drew. Maximizing contributions therefore was an important goal. The annual quest for contributions was a combined appeal for the Life Member Fund, the IEEE History Center, and the IEEE Foundation General Fund that was included in the annual renewal postcard that Life Members had to return in order to remain active, that is, to continue receiving the benefits of life membership.[[640]](#footnote-640)

In March 2004, the LMC Chair, Om Malik, appointed John W. Meredith and Theodore W. Hissey as an ad hoc committee to discuss the goals and issues that the LMC needed to pursue to attract additional contributors to the Life Members Fund. They discussed various methods for increasing donations, including the distribution of a pocket calendar, a bookmark with a message reminding people to donate to the Life Member Fund, and the ability to contribute directly over the web.[[641]](#footnote-641)

In 2005, the Life Members Committee already had allocated funds to produce Life Member pins to be given away as recognition but which they also would offer for sale. With the pins readily available, in 2007, the LMC instituted an incentive program—not unlike the premiums offered by public broadcasting stations—that combined the need to increase donations with Life Members' interest in history. First time contributors of $50 or more would receive a pin. Those who already had a pin and who gave $100 USD or more received an IEEE History Milestone coaster. The first coasters marked the Telstar and the first transatlantic television signal via satellite in 1962 and the Panama Canal electrical and control installations. A new Milestone coaster was made available each year. Individuals who contributed at least $500 USD over a six-year period received a plaque. In 2013, the minimum donations to receive a Life Member pin and/or a pewter coaster increased, and the increases had a predictable positive impact on contributions.[[642]](#footnote-642)

IEEE established the Milestones Program in 1983 in conjunction with the 1984 Centennial Celebration to recognize the achievements of the Century of Giants who formed the profession and technologies represented by IEEE. Each milestone recognizes a significant technical achievement that occurred at least twenty-five years ago in an area of technology represented in IEEE and having at least regional impact. By the end of 2014, more a hundred and fifty Milestones have been approved and dedicated around the world.[[643]](#footnote-643)

In 2007, as the LMC was introducing the membership premiums, it considered launching a new modality for facilitating sociability among Life Members. The idea was that the LMC would support a travel program, IEEE tours perhaps to History Milestones and/or vacations. Any revenue generated would go into the Life Member Fund. The committee decided to study the proposal further, and Theodore A. "Ted" Bickart and Luis Gandia agreed to undertake the work.[[644]](#footnote-644)

The Life Member Travel Program soon began to evolve and become more concrete. The LMC partnered with a tour organization to provide IEEE members with technology-themed learning tours. Candidate site locations included the Itapúa Dam (located near the boarders of Brazil, Paraguay and Argentina), the Panama Canal, and the Three Gorges Project (China). The committee authorized planning for the first of the technical tours, and an ad hoc committee (Ted Bickart, Lyle Feisel, and Luis Gandia) worked on the program, which tentatively was to begin in 2009.[[645]](#footnote-645)

For a number of reasons, the first tour location was the Panama Canal and the electrical and control installations which had been named an IEEE History Milestone and had been the subject of the Life Members coaster series. The LMC subcommittee then began working with a contact in Panama to obtain specific costs and tour details.[[646]](#footnote-646)

By November 2009, the dates of the tour, 3-10 March 2010, were set and registration was open. The tour has been publicized in the Life Member Newsletter and notes had been sent to the chairs of the Life Member Affinity Groups requesting that they distribute to Life members in their Sections. The first tour was a success, and all participants were contacted for feedback on the tour to be used in planning for future tours.[[647]](#footnote-647)

The original proposal for the technical tours had been that any revenue generated would go into the Life Member Fund. The first tour actually did return some fees to the Life Member Fund. Those revenues did not materialize, subsequently, but they were financially self-sufficient, and the LMC had not had to absorb any expenses.[[648]](#footnote-648) The technical tours have continued to be a successful marriage of tourism, history, and sociability to the present.

The Foundation.

Although the Life Members Committee's connection to the Board of Directors had become less direct after 2001, when it started to report to the Regional Activities Board and its successor the Member and Geographic Activities Board, the LMC grew ever closer to the IEEE Foundation. In 2003, the LMC revised its charter, which had not undergone revision since 1994, so that the Foundation bylaws, the IEEE bylaws, and the LMC charter were consistent.[[649]](#footnote-649) The committee adopted Foundation procedures, then finally merged its grant-review process into that of the Foundation.

As a way to exercise more control over its budget, the Foundation adopted a spending model to estimate the funds available from the general fund for grants in the current and the following three years. The LMC followed suit by developing its own spending model fashioned on that of the Foundation to show how much was available each year for grants. The spending model stipulated a minimum balance for the Life Member Fund and provided a formula for setting a limit on annual spending. The LMC approved the use of the spending model in March 2004.[[650]](#footnote-650)

The LMC also fine-tuned its procedures for reviewing grant proposals and gradually brought them in line with those of the IEEE Foundation. The committee always had distinguished between a program, a project, and a special project, and in October 2001 gave them official definitions. A program was a long-term continuous activity that had no defined termination point, such as the Student Paper Contest Prizes. A project also was an activity lasting multiple years, but had a defined termination point. A special project also had a defined termination point, but required a onetime financial commitment.[[651]](#footnote-651)

In September 2002, the LMC authorized the use of a Life Member Fund Proposal Preliminary Review Procedure to insure that funding requests were complete and in proper order before coming to the committee for official action. It also recommended that the LMC chair appoint each year an ad hoc Proposal Review Committee consisting of the Past LMC Chair, a member who had served on the committee for at least one year, and a member who was serving their first year on the committee.[[652]](#footnote-652)

By 2003, the LMC was considering the option of combining its grant evaluation procedure with that of the IEEE Foundation. The LMC agreed that it would be beneficial to assign a committee member to the Foundation's Grants Committee, but it did not want to cede its sole authority over the Life Member Fund as provided in its charter and IEEE bylaws. The committee therefore opposed the proposal, but was in favor of combining particular aspects of Foundation procedures such as using the same criteria as the Foundation to evaluate proposals. The Life Members Committee also agreed that the process needed further refinement with particular attention to how to handle grant requests in a timely manner. Foundation Director Theodore Hissey suggested establishing a "rapid response" fund and forming a subcommittee of the Life Members Committee to review the grants. LMC Chair B. Leonard Carlson agreed to present this as an option to the LMC.[[653]](#footnote-653)

In March 2004, LMC Chairman Om Malik presented the details of the process that the Life Members Committee would use for reviewing and approving grants. The process would allow the LMC to retain full control of spending while maintaining a close liaison with the Foundation. However, Malik would continue to work with Hissey and others from the Foundation to clarify the process. One issue to be resolved was the formulation of a preliminary proposal review process. That issue became moot in 2005, when the Foundation eliminated the submission of a preliminary proposal abstract as a requirement and implemented in its stead an electronic grant application submission scheme. After discussing the pros and cons, the LMC decided to eliminate the preliminary proposal form immediately in favor of electronic submission of grant applications. They also modified their procedures to be in agreement with those currently used by the Foundation. The LMC procedures were posted on the web, and a website offered grant proposal submissions in a format similar to that used by the Foundation.[[654]](#footnote-654)

The LMC and Foundation proposal submission processes then came even closer together. In 2007, the LMC approved the consolidation of its online process with that of the Foundation. The Foundation Grants Committee, consisting jointly of Foundation and LMC members, would review all submissions. The LMC would take final action on all proposals, thereby conserving its charter duty as sole administrator of the Life Member Fund. The LMC also maintained its distinct identity within the process and had a voice in the allocation of projects between the LMC and Foundation.[[655]](#footnote-655)

In 2008, the Foundation gave its approval to the merger of the Life Member Fund grant submission and review processes with those of the Foundation. An updated LMC web page indicated that all grant requests were to be submitted through the IEEE Foundation website. A Joint Grants Committee consisting of representatives of the Foundation and the LMC evaluated proposals and made funding recommendations regarding which body would be most appropriate to provide the support.[[656]](#footnote-656) The LMC and Foundation now had a single process that maintained the sole authority of the LMC over the Life Member Fund.

The Life Members Committee had evolved from a committee tied solely to the Board of Directors to one linked closely to the IEEE Foundation. At the outset, the committee focused on engineering education—the Student Paper Contest Prizes and the IEEE Education Medal—followed by a brief foray into international standards. Starting in the 1970s, the committee undertook various initiatives directed toward enhancing the social experiences of Life Members by creating social infrastructures (conference activities, member directory, newsletter) that concurrently promoted social interactions among Life Members and encouraged more Life Members to contribute to the Life Member Fund. And, the committee broadened its charter to make it a voice for older IEEE members, not just the half who were Life Members, and opened its newsletter and member directory to them. By the end of the 1980s, the committee was turning its attention to Life Members in IEEE Sections and eventually had a regular presence at every IEEE Sections Congress to promote the formation of Life Member groups and activities within the Sections. The committee also was reached out to civic groups and high school students through a variety of media and projects aimed at promoting the engineering profession and technological literacy (also known as STEM).

The evolution of the Life Members Committee tracked closely with that of the IEEE History Committee and the History Center as well as the Smithsonian Institution. The scale and scope of history projects supported by the Life Member Fund swelled with the establishment of the IEEE History Center. A new wave of historical activity accompanied the 1984 commemoration of the IEEE centennial in 1984. Two history initiatives, the Life Member Fellowship in Electrical History and the Life Member Prize in Electrical History (now the Bernard S. Finn IEEE History Prize), also brought the committee into a lasting collaboration with the Society for the History of Technology.

The Life Members Committee continues to be the advocate for Life Members and older IEEE members and to find new ways to promote Life Member activities at the local level and new ways to facilitate sociability among Life Members, not to mention innovative approaches that fulfill the enduring interest in history of Life Members and further fellowship among Life Members, such as the History Milestone coaster series and the historical technology tours.

1. "American Institute of Electrical Engineers Rules," appended to *AIEE Trans*., Volume I, Issue 1 (1884). [↑](#footnote-ref-1)
2. Minutes, AIEE EC meeting, 23 Sep 1896, 8. [↑](#footnote-ref-2)
3. "American Institute of Electrical Engineers," *AIEE Trans.,* 18 (May 1901): 214. [↑](#footnote-ref-3)
4. "Constitution," *AIEE Trans.,* 18 (1901): 926, which reflects amendments approved on 21 May 1901. [↑](#footnote-ref-4)
5. Minutes, AIEE EC meeting, 23 Sep 1896, 8; AIEE, Catalogue of Members, Aug 1, 1907. [↑](#footnote-ref-5)
6. Article IV, Section 22 in "Constitution of the American Institute of Electrical Engineers," *AIEE Proc*., 26 (Jun 1907): 1026. Also published in *AIEE Trans.,* 26 (1907): 912. [↑](#footnote-ref-6)
7. Minutes, AIEE BoD meeting, 12 Jan 1912, 280; AIEE Constitution published in AIEE, *1913 Yearbook*, 30. [↑](#footnote-ref-7)
8. Minutes, AIEE BoD meeting, 14 Jan 1916, 541. [↑](#footnote-ref-8)
9. Minutes, AIEE BoD meeting, 5 Dec 1924, 1180. [↑](#footnote-ref-9)
10. Minutes, AIEE BoD meeting, 21 Jan 1925, Proposed Amendments to the Constitution, 25 Feb 1925, 5 & 6. [↑](#footnote-ref-10)
11. Minutes, AIEE BoD meeting, 5 Dec 1924, 1180. [↑](#footnote-ref-11)
12. Minutes, AIEE BoD meeting, 21 Jan 1925, Proposed Amendments to the Constitution, 25 Feb 1925, 6. [↑](#footnote-ref-12)
13. "Proposed Life Member Rates," appended to Minutes, AIEE BoD meeting, 25 Jun 1925. [↑](#footnote-ref-13)
14. "Proposed Life Member Rates," appended to Minutes, AIEE BoD meeting, 25 Jun 1925. [↑](#footnote-ref-14)
15. "Proposed Life Member Rates," appended to Minutes, AIEE BoD meeting, 25 Jun 1925. [↑](#footnote-ref-15)
16. Minutes, AIEE BoD meeting, 8 Apr 1927, 1340. [↑](#footnote-ref-16)
17. Minutes, AIEE BoD meeting, 21 Jan 1925, 1192-1193. [↑](#footnote-ref-17)
18. Minutes, AIEE BoD meeting, 21 Jan 1925, Proposed Amendments to the Constitution, 25 Feb 1925, 6. [↑](#footnote-ref-18)
19. Minutes, AIEE BoD meeting, 10 Feb 1927, 1329; Minutes, AIEE BoD meeting, 18 May 1928, 1430. [↑](#footnote-ref-19)
20. Minutes, AIEE BoD meeting, 8 Apr 1927, 1341; Minutes, AIEE BoD meeting, 20 May 1927, 1353. [↑](#footnote-ref-20)
21. Minutes, AIEE BoD meeting, 22 May 1929, 1491. [↑](#footnote-ref-21)
22. Minutes, AIEE BoD meeting, 4 Aug 1936, 2006. [↑](#footnote-ref-22)
23. Minutes, AIEE BoD meeting, 20 May 1932, 1713; Minutes, AIEE BoD meeting, 2 Aug 1932, 1726; Minutes, AIEE BoD meeting, 28 Jun 1933, 1787; Minutes, AIEE BoD meeting, 20 Oct 1933, 1805; Minutes, AIEE BoD meeting, 25 May 1934, 1843; Minutes, AIEE BoD meeting, 7 Aug 1934, 1860; Minutes, AIEE BoD meeting, 21 Jan 1935, 1886; Minutes, AIEE BoD meeting, 20 May 1935, 1910; Minutes, AIEE BoD meeting, 22 Oct 1935, 1944; Minutes, AIEE BoD meeting, 25 May 1936, 1986; Minutes, AIEE BoD meeting, 20 Oct 1936, 2018; Minutes, AIEE BoD meeting, 24 May 1937, 2062; Minutes, AIEE BoD meeting, 26 Jan 1938, 2122; Minutes, AIEE BoD meeting, 26 May 1938, 2139-2140; Minutes, AIEE BoD meeting, 25 Oct 1938, 2165; Minutes, AIEE BoD meeting, 29 Jun 1939, 2221. [↑](#footnote-ref-23)
24. Minutes, AIEE BoD meeting, 26 Jan 1937, 2037-2038; Minutes, AIEE BoD meeting, 24 May 1940, 2280; Minutes, AIEE BoD meeting, 25 Oct 1940, 2322. [↑](#footnote-ref-24)
25. Minutes, AIEE BoD meeting, 26 May 1939, 2205; Minutes, AIEE BoD meeting, 24 May 1940, 2280; Minutes, AIEE BoD meeting, 23 May 1941, 2353; Minutes, AIEE BoD meeting, 18 Jun 1941, 2364-2365. [↑](#footnote-ref-25)
26. Minutes, AIEE BoD meeting, 21 Jan 1925, Proposed Amendments to the Constitution, 25 Feb 1925, 6; F. L. Hutchinson, "Revised Constitution and By-Laws," *Journal AIEE*, 44 (Aug 1925): 812. [↑](#footnote-ref-26)
27. Minutes, AIEE BoD meeting, 5 Dec 1924, 1180. [↑](#footnote-ref-27)
28. Minutes, AIEE BoD meeting, 2 Aug 1932, 1726; Minutes, AIEE BoD meeting, 25 May 1934, 1843; Minutes, AIEE BoD meeting, 4 Aug 1936, 2006; Minutes, AIEE BoD meeting, 20 Oct 1936, 2018; Minutes, AIEE BoD meeting, 24 May 1937, 2062; Minutes, AIEE BoD meeting, 26 Jan 1938, 2122; Minutes, AIEE BoD meeting, 29 Jun 1939, 2221; Minutes, AIEE BoD meeting, 27 Jun 1940, 2295; Minutes, AIEE BoD meeting, 23 May 1941, 2353; Minutes, AIEE BoD meeting, 8 Aug 1941, 2374 [↑](#footnote-ref-28)
29. Minutes, AIEE BoD meeting, 21 May 1926, 1276. [↑](#footnote-ref-29)
30. Minutes, AIEE BoD meeting, 23 Jun 1926, 1285; "AIEE Directors' Meeting," *Journal AIEE*, 45 (Aug 1926): 780; "Members for Life," *Journal AIEE*, 46 (Jan 1927): 82. [↑](#footnote-ref-30)
31. Minutes, AIEE BoD meeting, 10 Dec 1926, 1317. [↑](#footnote-ref-31)
32. "Members for Life," *Journal AIEE*, 46 (Jan 1927): 82. [↑](#footnote-ref-32)
33. Minutes, AIEE BoD meeting, 10 Feb 1927, 1329; Minutes, AIEE BoD meeting, 8 Apr 1927, 1341; Minutes, AIEE BoD meeting, 19 Oct 1927, 1382; Minutes, AIEE BoD meeting, 16 Dec 1927, 1393; Minutes, AIEE BoD meeting, 16 Feb 1928, 1408; Minutes, AIEE BoD meeting, 18 May 1928, 1431. [↑](#footnote-ref-33)
34. Minutes, AIEE BoD meeting, 8 Apr 1927, 1341. [↑](#footnote-ref-34)
35. Minutes, AIEE BoD meeting, 20 May 1927, 1352. [↑](#footnote-ref-35)
36. "Proposed Amendments to the AIEE Constitution, Recommended for Adoption by the Board of Directors," attached to Minutes, AIEE BoD meeting, 16 Feb 1928. [↑](#footnote-ref-36)
37. "Great Names Behind the Institute," *Electrical Engineering*, 53 (May 1934): 786-810; also published as "Great Names Behind the Institute," *AIEE Trans.*, 53 (May 1934): 786-824. The AIEE Presidents who were Life Members (and the years they served) included Edwin J. Houston (1893-1895), Francis B. Crocker (1897-1898), Arthur E. Kennelly (1898-1900), Carl Hering (1900-1901), Schuyler Skaats Wheeler (1905-1906), Samuel Sheldon (1906-1907), Gano Dunn (1911-1912), Cyprien O. Mailloux (1913-1914), and John B. Whitehead, 1933-1934. The AIEE Presidents who were Members for Life were: Edward Weston (1888-1889), Elihu Thomson (1889-1890), Frank J. Sprague (1892-1893), Charles F. Scott (1902-1903), Bion J. Arnold (1903-1904), John W. Lieb (1904-1905), Lewis B. Stillwell (1909-1910), Dugald C. Jackson (1910-1911), Ralph D. Mershon (1912-1913), Paul M. Lincoln (1914-1915), John J. Carty (1915-1916), H. W. Buck (1916-1917), E. W. Rice (1917-1918), Comfort A. Adams (1918-1919), Arthur W. Berresford (1920-1921), Harris J. Ryan (1923-1924), Michael I. Pupin (1925-1926), C. C. Chesney (1926-1927), Bancroft Gherardi (1927-1928), and Harold B. Smith (1929-1930). In all, 29 of the 46 AIEE Presidents from 1884 to 1934 were either Life Members or Members for Life. [↑](#footnote-ref-37)
38. "Member-for-Life List Brought Up to Date," *Electrical Engineering*, 54 (Sep 1935): 1012. [↑](#footnote-ref-38)
39. Minutes, AIEE BoD meeting, 26 Jan 1938, 2121. [↑](#footnote-ref-39)
40. "Additions to Member-for-Life List," *Electrical Engineering*, 57 (Jul 1938): 297; "Additions to List of Members for Life," *Electrical Engineering*, 58 (Jul 1939): 303. [↑](#footnote-ref-40)
41. Minutes, AIEE BoD meeting, 12 Oct 1932, 1737. [↑](#footnote-ref-41)
42. Minutes, AIEE BoD Meeting, 30 Jan 1947, 5. [↑](#footnote-ref-42)
43. Minutes, AIEE BoD Meeting, 12 Jun 1947, 9. [↑](#footnote-ref-43)
44. Minutes, AIEE BoD Meeting, 29 Jan 1948, 12. [↑](#footnote-ref-44)
45. Minutes, AIEE BoD meeting, 27 Jun 1928, 1439. [↑](#footnote-ref-45)
46. Minutes, AIEE BoD meeting, 20 May 1935, 1912-1913. [↑](#footnote-ref-46)
47. Minutes, AIEE BoD meeting, 26 Jan 1937, 2035. [↑](#footnote-ref-47)
48. Minutes, AIEE BoD meeting, 24 May 1937, 2059-2060. [↑](#footnote-ref-48)
49. Minutes, AIEE BoD meeting, 3 Aug 1937, 2090. [↑](#footnote-ref-49)
50. Minutes, AIEE BoD meeting, 27 Oct 1939, 2242. [↑](#footnote-ref-50)
51. Minutes, AIEE BoD meeting, 27 Oct 1939, 2242. [↑](#footnote-ref-51)
52. Minutes, AIEE BoD meeting, 27 Oct 1939, 2243. ASME had Life Members since at least 1886. Necrology, "William Dunderdale Forbes," *ASME Transactions*, 43 (1922): 1294-1295. By 1921, ASME already had a Life Membership Fund which supported a Life Membership Award for Best Paper Appearing in its *Transactions*. "Annual Report of Council," *ASME Transactions*, 43 (1922): 455 & 465. [↑](#footnote-ref-52)
53. Minutes, AIEE BoD meeting, 27 Oct 1939, 2242-2243. [↑](#footnote-ref-53)
54. Minutes, AIEE BoD meeting, 24 May 1940, 2290. [↑](#footnote-ref-54)
55. Minutes, AIEE BoD meeting, 2 Aug 1940, 2306-2308; Minutes, AIEE BoD meeting, 25 Oct 1940, 2319. [↑](#footnote-ref-55)
56. Minutes, AIEE BoD meeting, 30 Jan 1941, 2336. [↑](#footnote-ref-56)
57. Minutes, AIEE BoD meeting, 30 Jan 1941, 2336. [↑](#footnote-ref-57)
58. Minutes, AIEE BoD meeting, 30 Jan 1941, 2336. [↑](#footnote-ref-58)
59. Minutes, AIEE BoD meeting, 8 Aug 1941, 2380. [↑](#footnote-ref-59)
60. Minutes, AIEE BoD Meeting, 24 June 1942, 2430. [↑](#footnote-ref-60)
61. Minutes, AIEE BoD Meeting, 24 Jun 1943, 2500. [↑](#footnote-ref-61)
62. Minutes, AIEE BoD Meeting, 24 Jun 1943, 2500. [↑](#footnote-ref-62)
63. Minutes, AIEE BoD Meeting, 24 Jun 1943, 2500. [↑](#footnote-ref-63)
64. Minutes, AIEE BoD Meeting, 27 Jan 1944, 2540. [↑](#footnote-ref-64)
65. Minutes, AIEE BoD Meeting, 27 Jan 1944, 2540. [↑](#footnote-ref-65)
66. Minutes, AIEE BoD Meeting, 27 Jan 1944, 2541. [↑](#footnote-ref-66)
67. Minutes, AIEE BoD Meeting, 27 Jan 1944, 2541. [↑](#footnote-ref-67)
68. "Report of the Board of Directors," *AIEE Trans.*, 64 (Dec 1945): 1006. [↑](#footnote-ref-68)
69. "Report of the Board of Directors," *AIEE Trans.*, 63 (Dec 1944): 1522; "Report of the Board of Directors," *Electrical Engineering*, 61 (Jul 1942): 371. The 733 Members for Life represented about 4% of the total paid membership. [↑](#footnote-ref-69)
70. Minutes, AIEE BoD Meeting, 25 May 1944, 2550; "Report of the Board of Directors," *AIEE Trans.*, 67 (Dec 1948): 1782; "Report of the Board of Directors," *AIEE Trans.*, 68 (Dec 1949): 1407; "Report of the Board of Directors," *AIEE Trans.*, 64 (Dec 1945): 1003 & 1015; "Report of the Board of Directors," *AIEE Trans.*, 65 (Dec 1946): 1200 & 1214-1216; "Report of the Board of Directors," *AIEE Trans.*, 66 (Dec 1947): 1718-1720; Minutes, AIEE BoD Meeting, 14-15 May 1946, 2. [↑](#footnote-ref-70)
71. Minutes, AIEE BoD Meeting, 24 Jun 1948, 3-4. [↑](#footnote-ref-71)
72. Minutes, AIEE BoD Meeting, 23 Apr 1948, 14; "Committee Issues Statement on Member-for-Life Fund Use," *Electrical Engineer*, 67 (Oct 1948): 1010; Minutes, AIEE BoD Meeting, 24 Jun 1948, 3; "Committee on Members-for-Life Fund," *Electrical Engineering*, 68 (Aug 1949): 738. [↑](#footnote-ref-72)
73. Minutes, AIEE BoD Meeting, 26 Jun 1952, 23; "Background, Use Explained of Members-for-Life Fund," *Electrical Engineering*, 71 (Sep 1952): 818. [↑](#footnote-ref-73)
74. See, for example, "Annual Additions to List of Members for Life," *Electrical Engineering*, 65 (Jul 1946): 352. [↑](#footnote-ref-74)
75. Minutes, AIEE BoD Meeting, 3 Feb 1949, 17. [↑](#footnote-ref-75)
76. Minutes, AIEE BoD Meeting, 29 Jun 1944, 2567. [↑](#footnote-ref-76)
77. "Expense Awards Established From Members-for-Life Fund," *Electrical Engineering*, 64 (Jan 1945): 31. [↑](#footnote-ref-77)
78. "Trial Period Extended on Members-for-Life Awards," *Electrical Engineering*, 65 (Jul 1946): 351. [↑](#footnote-ref-78)
79. "Report of the Board of Directors," *Electrical Engineering*, 66 (Jul 1947): 731. [↑](#footnote-ref-79)
80. "Report of the Board of Directors," *Electrical Engineering*, 67 (Aug 1948): 821. [↑](#footnote-ref-80)
81. Minutes, AIEE BoD Meeting, 23 Apr 1948, 8 & 9. [↑](#footnote-ref-81)
82. Minutes, AIEE BoD Meeting, 5 Aug 1948, 3. [↑](#footnote-ref-82)
83. "Report of the Board of Directors," *Electrical Engineering*, 70 (Aug 1951): 727. [↑](#footnote-ref-83)
84. Minutes, AIEE BoD Meeting, 28 Jun 1951, 11. [↑](#footnote-ref-84)
85. Minutes, AIEE BoD Meeting, 25 Oct 1951, 4. [↑](#footnote-ref-85)
86. "Report of the Board of Directors," *Electrical Engineering*, 71 (Sep 1952): 826-827. [↑](#footnote-ref-86)
87. Minutes, AIEE BoD Meeting, 5 Oct 1956, 12. [↑](#footnote-ref-87)
88. "Additional District Student Paper Prizes," *Electrical Engineering*, 75 (Dec 1956): 1113; "Report of the Board of Directors," *Electrical Engineering*, 76 (Aug 1957): 720 & 721. [↑](#footnote-ref-88)
89. Minutes, AIEE BoD Meeting, 24 Jun 1948, 3-4. [↑](#footnote-ref-89)
90. Minutes, AIEE BoD Meeting, 24 Jun 1948, 3-4. [↑](#footnote-ref-90)
91. W. R. Brownlee, "History of the Medal," *Electrical Engineering*, 77 (1958): 346. [↑](#footnote-ref-91)
92. "Report of the Board of Directors," *Electrical Engineering*, 74 (Aug 1955): 712. [↑](#footnote-ref-92)
93. Brownlee, 346. [↑](#footnote-ref-93)
94. "First Recipient of New AIEE Medal Announced," *Electrical Engineering*, 75 (Sep 1956): 825; Minutes, AIEE BoD Meeting, 17 Aug 1955 Appendix C. [↑](#footnote-ref-94)
95. Minutes, AIEE BoD Meeting, 2 Feb 1956, Appendix D. [↑](#footnote-ref-95)
96. Minutes, AIEE BoD Meeting, 17 Aug 1955 8. [↑](#footnote-ref-96)
97. Minutes, AIEE BoD Meeting, 2 Feb 1956, Appendix D. [↑](#footnote-ref-97)
98. "Report of the Board of Directors," *Electrical Engineering*, 75 (Aug 1956): 734. [↑](#footnote-ref-98)
99. "Medal in Electrical Engineering Education," *Electrical Engineering*, 79 (Jan 1960): 97. [↑](#footnote-ref-99)
100. Minutes, AIEE BoD Meeting, 2 Feb 1956, Appendix D. [↑](#footnote-ref-100)
101. Minutes, AIEE BoD Meeting, 28 Jun 1956, 12. [↑](#footnote-ref-101)
102. Minutes, AIEE BoD Meeting, 17 Aug 1955, Appendix C. [↑](#footnote-ref-102)
103. "Report of the Board of Directors," *Electrical Engineering*, 75 (Aug 1956): 734. [↑](#footnote-ref-103)
104. "Report of the Board of Directors," *Electrical Engineering*, 75 (Aug 1956): 734. [↑](#footnote-ref-104)
105. Minutes, AIEE BoD Meeting, 17 Aug 1955, 8; Minutes, AIEE BoD Meeting, 17 Aug 1956, 13; "First Recipient of New AIEE Medal Announced," *Electrical Engineering*, 75 (Sep 1956): 825. [↑](#footnote-ref-105)
106. "Report of the Board of Directors," *Electrical Engineering*, 76 (Aug 1957): 719-721; Minutes, AIEE BoD Meeting, 5 Apr 1957, 11; Minutes, AIEE BoD Meeting, 28 Jun 1957, 5-6. Although commonly referred to as the Prize Awards Committee, its official name was the Recognition Awards Committee. [↑](#footnote-ref-106)
107. See, for example, Minutes, IRE BoD meeting, 5 Feb 1941, 18; Minutes, IRE BoD meeting, 5 Mar 1941, 29. [↑](#footnote-ref-107)
108. "The Institute of Radio Engineers Constitution," appended to Minutes, IRE BoD meeting, 3 Dec 1941. [↑](#footnote-ref-108)
109. Minutes, IRE Executive Committee meeting, 1 Sep 1942, 71. [↑](#footnote-ref-109)
110. Minutes, IRE Executive Committee meeting, 6 Apr 1943, 49. [↑](#footnote-ref-110)
111. Minutes, IRE BoD meeting, 7 Jun 1944, 138. [↑](#footnote-ref-111)
112. Minutes, IRE BoD meeting, 6 Sep 1944, 155. [↑](#footnote-ref-112)
113. Minutes, IRE BoD meeting, 4 Oct 1944, 187. [↑](#footnote-ref-113)
114. Minutes, IRE BoD meeting, 1 Nov 1944, 208. [↑](#footnote-ref-114)
115. Minutes, IRE BoD meeting, 29 Nov 1944, 223. [↑](#footnote-ref-115)
116. Minutes, IRE Executive Committee meeting, 30 Aug 1944, 125. [↑](#footnote-ref-116)
117. "Institute News and Radio Notes," *Proc. IRE*, 33 (Feb 1945): 130. [↑](#footnote-ref-117)
118. Minutes, IRE Executive Committee meeting, 5 Sep 1945, 105. [↑](#footnote-ref-118)
119. Minutes, IRE Executive Committee meeting, 9 Sep 1947, 86. [↑](#footnote-ref-119)
120. Minutes, IRE BoD meeting, 10 Sep 1947, 46-47. [↑](#footnote-ref-120)
121. Bylaws appended to Minutes, IRE BoD meeting, 10 Sep 1947. [↑](#footnote-ref-121)
122. Minutes, IRE Executive Committee meeting, 8 Sep 1954, 160. [↑](#footnote-ref-122)
123. Minutes, IRE Executive Committee meeting, 7 Jul 1948, 87. [↑](#footnote-ref-123)
124. Minutes, IRE Executive Committee meeting, 4 Jan 1949, 13; Minutes, IRE Executive Committee meeting, 1 Feb 1949, 24. [↑](#footnote-ref-124)
125. Minutes, IRE Executive Committee meeting, 31 Jan 1950, 17. [↑](#footnote-ref-125)
126. Minutes, IRE Executive Committee meeting, 10 Nov 1953, 235. [↑](#footnote-ref-126)
127. Minutes, IRE Executive Committee meeting, 4 Apr 1950, 36. [↑](#footnote-ref-127)
128. Minutes, IRE BoD meeting, 6 Sep 1950, 51; Minutes, IRE Executive Committee meeting, 5 Jan 1954, 9. [↑](#footnote-ref-128)
129. Minutes, IRE BoD meeting, 6 Sep 1950, 51. [↑](#footnote-ref-129)
130. Minutes, IRE Executive Committee meeting, 10 Nov 1953, 235. [↑](#footnote-ref-130)
131. Minutes, IRE Executive Committee meeting, 5 Jan 1954, 9. [↑](#footnote-ref-131)
132. Minutes, IRE Executive Committee meeting, 2 Feb 1954, 20. [↑](#footnote-ref-132)
133. "The Institute of Radio Engineers Bylaws," Minutes, IRE BoD meeting, 13 May 1959, 52 & 58. [↑](#footnote-ref-133)
134. "L. S. McDowell is the First Woman to Become Life Member," *Proc. IRE*, 46 (Feb 1958): 506. [↑](#footnote-ref-134)
135. "Report of the Board of Directors," *Electrical Engineering*, 56 (Aug 1957): 714; Minutes, AIEE BoD Meeting, 25 Jan 1957, 2. [↑](#footnote-ref-135)
136. Minutes, IRE Executive Committee meeting, 1 Sep 1960, 92. For information on this reciprocal membership agreement, see Minutes, IRE BoD meeting, 5 Oct 1960, 64-65. [↑](#footnote-ref-136)
137. " Merger Problems Involving Staff," author and date unknown, 6.32.345, IEEE Merger Collection. [↑](#footnote-ref-137)
138. "Recommended Organization of Professional Development and Recognition Activities of the Institute of Electrical and Electronic Engineers," Preliminary Draft, 23 Jul 1962, 8.46.410, IEEE Merger Collection. [↑](#footnote-ref-138)
139. Minutes, AIEE BoD Meeting, 12 Oct 1962, 8. [↑](#footnote-ref-139)
140. IRE, "Bylaws," 19 Aug 1959, Section 201(f), appended to *Proc. IRE*, 47 (Nov 1959). [↑](#footnote-ref-140)
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340. Minutes, LMFC meeting, 23 Mary 1971, 3; Minutes, IEEE EC meeting, 9 Nov 1970, 158; Minutes, IEEE EC meeting, 28 May 1971, 78; Minutes, IEEE EC meeting, 14 Jul 1971, 99; Minutes, IEEE BoD meeting, 22-23 Aug 1971, 56-57. [↑](#footnote-ref-340)
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356. Minutes, LMFC meeting, 22 Apr 1985, 3. [↑](#footnote-ref-356)
357. Minutes, LMFC meeting, 14 Oct 1985, Item 6.0, Edwin Harder to Richard Gowen, 6 Jul 1984. [↑](#footnote-ref-357)
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371. Minutes, LMFC meeting, 13 Apr 1989, 3. [↑](#footnote-ref-371)
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404. Minutes, LMC meeting, 19 Apr 1999, 2. [↑](#footnote-ref-404)
405. Minutes, LMC meeting, 19 Apr 1999, 2. [↑](#footnote-ref-405)
406. Minutes, LMC meeting, 19 Apr 1999, 2. [↑](#footnote-ref-406)
407. Minutes, LMFC meeting, 15 Apr 1991, 2 & 4; Minutes, LMFC meeting, 6 Apr 1988, 7. [↑](#footnote-ref-407)
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652. Minutes, LMC meeting, 31 Sep 2002, 3. [↑](#footnote-ref-652)
653. Minutes, LMC meeting, 24 Mar 2003, 4; Minutes, IEEE Foundation BoD meeting, 20 Jun 2003, 4; Minutes, LMC meeting, 22 Sep 2003, 2; Minutes, IEEE Foundation BoD meeting, 21 Nov 2003, 5. [↑](#footnote-ref-653)
654. Minutes, IEEE Foundation BoD meeting, 8 Mar 2004, 5-6; Minutes, LMC meeting, 21 Mar 2005, 4; Minutes, LMC meeting, 12 Sep 2005, 3; Minutes, IEEE Foundation BoD meeting, 17 Jun 2005, 12. [↑](#footnote-ref-654)
655. Minutes, LMC meeting, 22 Oct 2007, 2; Minutes, IEEE Foundation BoD meeting, 2 Nov 2007, 9. [↑](#footnote-ref-655)
656. Minutes, LMC meeting, 2 Mar 2008, 3; Minutes, LMC meeting, 23 Sep 2008, 1; Minutes, LMC meeting, 27 Oct 2008, 1; Minutes, LMC meeting, 2 Feb 2009, 1. [↑](#footnote-ref-656)