

Coeducation at MIT: 1950s–1970s

Work in Progress

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Robert M Gray '64

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Abstract

MIT was founded in 1861 and admitted its first woman as a “special student” in 1871, the first of a minuscule number of women to be admitted through the following century. In the 1950s, women made up 1 to 3% of the MIT student body, less than half that of 1897. In 1955, President James Killian asked Chancellor Julius Stratton to convene a committee to study the status of women students at MIT and make recommendations for the future. Over a year later, the committee chair Professor Leicester Hamilton wrote to the President recommending that MIT cease admitting women — at least at the undergraduate level. Killian rejected the recommendation and instead made a commitment to increasing the number of women students and improving their quality of life. This article is the story of the infamous Hamilton committee “report” and the sea change at MIT that began in the 1950s and 1960s and eventually led to women constituting nearly half of the undergraduate MIT population.

The narrative focuses on Emily L. Wick, MIT PhD ’51, who in the words of Dean Kenneth Wadleigh “played the key leadership role in the successful development of a strong identity and character for undergraduate and graduate women at M.I.T.” She was also an astute observer and commentator on the history and aspirations of women at MIT, both academic and extracurricular. Coeducational and women’s intercollegiate sailing at MIT provide an illustrative example of the complexities and breadth of the quality of life issues that accompanied the academic milestones.

The historical context of women at MIT from 1871 to the 1950s is provided along with observations on progress and remaining tasks noted by Emily in *A Century of Women Students at M.I.T.* written in 1973, the year she left MIT.

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Preface



This photo of Harriet Fell '64, from the MIT Museum archives, was published in the March 14, 2014, issue of *Science* in a review by Maria Klawe of *Girls Coming to Tech* by Amy Sue Bix [9]. The photo caption reads “On the leading edge of a wave. The 25 women who entered MIT’s class of 1964 matched the graduation rate of their 874 male classmates.”

The pivotal nature of 1960 in the history of MIT had been noted over four decades earlier by MIT Professor Emily L. Wick in her “Proposal for a new policy for admission of women undergraduate students at MIT” [49]:

Until the Institute could commit itself to educating women in significant numbers, and could provide suitable living conditions, coeds were not overly ‘successful’. . . . Before 1960 women entered MIT at their own risk. If they succeeded – fine! If they failed – well, no one had expected them to succeed. In 1960 the Institute committed itself to the education of women as well as men. . . . The class of 1964 entered in 1960 knowing that MIT believed in women students. It was the first class in which coeds, as a group, matched the proportion of B.S. degrees earned by their male classmates!



I first became interested in the history of coeducation at MIT in 2012 when Bob Popadic, then President of the MIT Class of '64 (and now Class Historian), decided to renovate the class Web pages for our 50th reunion and include pages on the history on specific living groups, sports, activities, and student organizations. I had written our original HTML crude Web pages years earlier, so he had me elected a Class Officer with a title of Class Webmaster. We tried to find members or participants of specific activities to write the

blurbs, but we often ended up writing pages on groups we wanted to be described, but for which we could not find volunteer authors. I took on the pages on the Association for Women Students (AWS), mostly because I am an amateur historian and because I had been actively involved in diversity issues during my years at Stanford University, especially with diversity (or lack thereof) of women faculty in engineering. In addition, early on I discovered the important role in the history played by Emily Wick, who was a neighbor in Rockport, on Cape Ann, Massachusetts, where I was living as a seasonal trial run for imminent retirement and where she was a sailing legend. Her sailing days were long over, but at the time I occasionally met Emily at the Sandy Bay Yacht Club social functions and crewed for her niece Laura Hallowell in sailboat races in Emily's Cape Cod Bullseye *Beaver II*.

Two years of research on the Web — especially the historical Web pages of the the Association of MIT Alumnae (AMITA, pronounced “a” as in “I am” - “it” - “uh”) along with burrowing into the MIT Museum and the Institute Archives and Collections, now called “Distinctive Collections,” an excellent article by Amy Sue Bix [7], and Emily Wick's papers in the possession of Emily's niece resulted in the Class of '64 Web pages [38].

In 2017 I was invited to update the article and give a presentation on Coeducation at MIT for a lecture series on Title IX [25] organized by Brandeis Professor Anita Hill (who was then visiting at MIT) and MIT Professor Muriel Medard. In the process of preparing for the lecture, I discovered that many of stories I had reported in the Web pages based on secondary sources were apocryphal and that the actual history revealed in harder-to-find primary sources was deeper and richer, and in some specifics still not completely known. That research resulted in a presentation at MIT in October 2017 [21]. That talk ended with my learning more stories from MIT alumnae from the late 1950s and early 1960s and receiving encouragement to continue my amateur historian's interest in the topic. In particular, I began a continuing email discussion (with occasional in-person conversations) with Susan L. Kannenberg, an alumna of my brother Peter's class of 1961, author of *100 Years of Women at MIT* (1973)[28], and long time member and activist in AMITA, an organization which through its various incarnations has played a key role in the story told here.

Another invitation led to further research and another talk in May 2018, this time at Stanford University with the support of the Stanford Vice Provost for Faculty Development and Diversity, AMITA, and the MIT Alumni Association (MITAA) [22]. Over half of the 57 attendees at the talk were MIT alumnae.

I had long intended to write up the material in full prose instead of the telegraph language of lecture slides, and Bob Popadic's idea of a book telling stories by classmates with origins during our MIT time and implications through the present seemed an ideal excuse for the exercise. The original version of this manuscript was the result of that effort based on the Class of '64 Web article, my talks, further conversations with alumnae, and further attempts to dig up still missing pieces of the story. The MIT Association for Women Students and its ancestors remain a common thread in the story, along with AMITA and its ancestors. The result appears as an essay in *Then, Now, and Beyond — We were there 1960-2019* [42].

In May 2019 I was invited to give a variation of the talk at one of the summer Thursday night lectures at the Sandy Bay Yacht Club in Rockport, where Emily had sailed Starboats, Jolly Boats, Fireflies, and Bullseyes and where she was the first woman Commodore (likely the first woman to serve as a yacht club commodore in New England). The thought of

speaking to an audience of sailors and many friends of Emily was irresistible, but it also called for a change in emphasis given the venue. A natural addition for an audience more familiar with Emily's sailboat handling and racing fame in New England rather than her MIT career was to look for possible involvement in the development of women's competitive sailing at MIT, which mostly took place during her time there. There were a few references to sailing in the earlier versions of this project, but neither I nor Laura Hallowell knew if Emily had been involved with the MIT sailing program. As she was not an undergraduate at MIT, she was never on a sailing team there — and she had her boat and outstanding sailing in Rockport. But Emily knew and advised all (or nearly all) of the women undergraduates and she loved sailing, so it seemed likely she was involved to some extent with MIT sailing. Laura observed that it was likely to have been quietly and behind the scenes. This led me to more research at MIT and, for intercollegiate sailing primary sources, to the Mystic Seaport Museum Collections in Mystic, Connecticut. The resulting talk *Emily Wick and Coeducation at MIT & Sailing at MIT* [24] added a significant amount of material on intercollegiate sailing for women at MIT and removed enough detail of the academic story to keep the talk at approximately an hour.

With each talk a common core of material remained, while some came and went. The article you are reading attempts to weave the various talks together with some additional supporting material into a unified manuscript with a few separate but tangled threads.

The basic academic story is not new, it is told in significant detail by Amy Sue Bix in [9] and a few other harder to find cited references, but it is worthwhile to spread the story and to add several details and differing views that were not included in published articles or official reports. The story can be put into a more global context with the relevant stories of the struggle for coeducation at private elite universities in the Eastern U.S. and the U.K. In Nancy Weiss Malkiel's outstanding book *Keep the Damned Women Out: The Struggle for Coeducation* (2016)[31]. A basic irony is that MIT seriously considered ceasing to be coeducational a decade before the most famous Ivy League schools moved in the opposite direction.

Chapter 1

The First Century: Boston Tech

1861 MIT is founded in Boston, but classes do not actually begin until after the end of the Civil War. William Barton Rogers becomes President in 1862.

1865 Classes begin at MIT. The Lowell Institute initiates the Lowell Lectures at MIT with a gift of \$250,000 in order to spread science information to the public [18]. The free evening courses are open to qualified candidates, both male and female, over the age of eighteen. The classes are organized by MIT and taught by MIT Professors, but the students

are not recognized as MIT students and are not allowed to attend regular MIT classes and laboratories. The classes gain a strong reputation for practical lab work in chemistry and other areas, and give MIT an appearance of having women students.

1867 The possibility of admitting women to MIT arises for the first time when several women attending Professor Charles W. Eliot’s course on chemical manipulation as part of the Lowell Free Lectures request to join regular daytime chemistry classes. While short excerpts of the exchange that follow have appeared in many books, it is insightful to quote the actual letters from *Life and Letters of William Barton Rogers: Edited by his Wife* (1896) [45] to detail the origins of coeducation at MIT and Rogers’ role in both promoting and stalling the idea. The letters mention the Committee on Instruction, which was founded in 1864 to be responsible for “the supervision of the School of Industrial Science, both as to its organization and its business-affairs.” [47] The School of Industrial Science was the original school within the Institute. President Rogers was the Chairman and the eight other members included Edward H. Atkinson — a founding officer of MIT and member of the Committee of Finance — and Nathaniel H. Thayer, Jr., a major donor to both MIT and Harvard [45].

TO EDWARD ATKINSON, ESQ.
58 PINCKNEY STREET, January 30.

DEAR SIR, — I believe that you are one of the Board of Instruction of the Institute of Technology, and in that capacity I want to ask a favour of you. The time of the “Lowell” class in chemical manipulation is drawing to a close, and some of the ladies of the class, who are very much interested in the subject, wish to go on with it. Will it be possible for them and me to join any class now formed in the Institute so as to continue our studies? If so, what would be the conditions as to terms and time? We hear that there is to be a meeting of the Board of Instruction this week. Could you bring the matter before them and so very much oblige,

Yours truly,

A. R. Curtis.

Atkinson forwarded the letter to President Rogers with the note

BOSTON, February 1, 1867.

DEAR SIR, The enclosed note speaks for itself. Can there be any objection to ladies entering as special students except possibly want of room in the laboratory?

Yours very truly,

EDWARD ATKINSON.

A separate appeal was made to Committee member Nathaniel Thayer, Jr.

ANITA E. TYNG AND REBECCA K. SHEPARD TO N. THAYER, ESQ.
BOSTON, January 30, 1867.

DEAR SIR, — At our interview this evening we stated to you that four ladies, regular attendants of the present Lowell class in chemical manipulation, wish to continue the study of Chemistry in the Technological Institute.

Relying upon your kindly presenting our wishes before the meeting of the Committee of Instruction, we remain,

Very truly yours,

ANITA E. TYNG.

REBECCA K. SHEPARD.

President Rogers replies with the authorization of the Committee of Instruction:

TO N. THAYER, ESQ.

1 TEMPLE PLACE, BOSTON, February 4, 1867.

DEAR SIR, — In reply to the communication of Misses Tyng and Shepard, please say to them that the Faculty and the Committee of Instruction appreciate the earnestness with which they and their associate lady pupils in the laboratory are disposed to pursue their scientific studies and would gladly afford them such opportunities of systematic instruction as are compatible with the objects and plans of the Institute, but that we could not comply with their present request without seriously embarrassing the organization of the laboratory and other departments of the school as connected with the regular courses now in progress.

The plan of evening (including afternoon) instruction, forming a department distinct from the so-called regular courses of the school, has been incorporated into the general organization of the Institute for the purpose of enabling lady students, as well as gentlemen, to have the benefit of systematic scientific instruction under the conditions best suited to their convenience and advantage, and to the interests of the school at large.

This department of the Institute, embracing the Lowell free instruction as a part, will, it is hoped, be so organized in another year as to meet the wants of the ladies whom your correspondents represent, and I need hardly add that the Faculty and Committee will gladly welcome them to the classes thus organized.

I remain, yours truly,

WILLIAM B. ROGERS.

It should be noted here that the second and archaic meaning of *embarrass* is given by the *Oxford Dictionary of English* as “hamper or impede (a person or action)” or “make difficult or intricate; complicate.”

Although Rogers has promoted equal education for women in his speeches and writings, he is not yet willing to accept the concept further than allowing qualified women to take the evening Lowell Lectures.

The issue arises again with a letter from William P. Atkinson, Professor of English Language and Literature, to President Rogers:

FROM PROFESSOR W. P. ATKINSON.

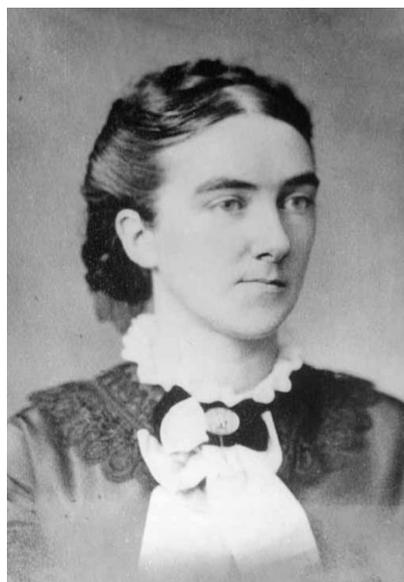
CAMBRIDGE, August 18, 1867.

... Application has come from one young woman, a rather remarkable teacher, who desires to avail herself of the Institute. I was sorry to have to reply that nothing was open to her save the Lowell courses. There is a large and increasing class of young women who are seeking for something more systematic in the way of a higher education. If we continue a special technical school, ours will not be the place for them; but if we should expand into a modern university, and I am confident there is room for one, by taking the bold step of opening our doors freely to both sexes I believe we should distance all competitors. It is a step sure to be taken somewhere. ...

Unfortunately, earlier in August President Rogers falls ill with pneumonia and poor health and Institute matters — including seeking permission from the Massachusetts Legislature to grant degrees for the impending first class to graduate — leave him little time to pursue the issue of coeducation.

1868 In October Rogers suffers an attack of hemiplegia or paralysis on the left side of his body. His health rapidly deteriorates and he is granted a leave of absence in December. His friend John Daniel Runkle, Professor of Mathematics, takes over as interim president and becomes president in 1870 when Rogers resigns for reasons of poor health. Runkle serves as President until 1878, but regularly consults Rogers as Rogers recovers his health and defers to him on major decisions. Rogers returns to the presidency on a temporary basis in 1878 and is again elected president in 1879 and serves through 1881. Thus it is President Runkle who receives the next application for MIT admission from a woman, this time not from a student in the Lowell Institute Free Lectures.

1870 Ellen Henrietta Swallow graduates from Vassar in June with a Bachelor of Arts degree in chemistry. During her search for employment she contacts Merrick and Gray (J.M. Merrick and Robert S. Gray, Analytical Chemists and Assayers, 50 Broad Street, Boston), requesting a position as apprentice. They reply that they are not in a position to take pupils, but that she might try to enter the Institute of Technology of Boston. On first glance this is a bizarre suggestion to give to a woman at a time when there are no women students at MIT [27], but an advertisement from the firm lists acting President Runkle as a reference, so the firm is well connected with MIT and doubtless aware of the Lowell evening chemistry classes. Regardless, Swallow writes to MIT asking if women can be admitted, giving as references two of her Vassar professors: astronomer Maria Mitchell — a personal friend of MIT President Runkle, and Professor C. A. Farrar, the head of the Department of Natural Sciences and Mathematics. The Faculty of the Institute of Technology formally receives her application on 3



December 1870, Ellen's twenty-eighth birthday, but it decides to "postpone the question of the admission of female students until the next meeting." On 10 December

the question of the admission of Miss Swallow was resumed and after some discussion it was voted that the Faculty recommend to the Corporation the admission of Miss Swallow as a special student in Chemistry. [27]

There was a catch, however, as the Faculty also

Resolved That the Faculty are of the opinion that the admission of women as special students is as yet in the nature of an experiment, that each application should be acted on upon its own merits, and that no general action or change of the former policy of the Institute is at present expedient. [27]

The Committee on Instruction agreed and on 14 December 1870 the *Records of the Meetings of the MIT Corporation* included a widely quoted statement: ¹

It was voted to confirm the recommendation of the Committee on the School of Industrial Science that Miss Ellen H. Swallow be admitted as a Special Student in Chemistry — it being understood that her admission did not establish a precedent for the general admission of females.

President Runkle informed Swallow of the result, writing

Dear Miss Swallow: The Secretary of the Institute, Dr. Kneeland, will notify you of the action of the corporation in your case at a meeting held this day. I congratulate you and every earnest woman upon the result. Can you come to Boston before many days and see me? I will say now that you shall have any and all advantages which the Institute has to offer without charge of any kind. I have the pleasure of knowing both Miss Mitchell and Mr. Farrar of Vassar. Hoping soon to have the pleasure of seeing you, I am

Faithfully yours,

J. D. RUNKLE,
President of the Institute

Swallow later wrote that when she read that there would be no tuition,

I thought it was out of the goodness of his heart because I was a poor girl with my way to make that he remitted the fee, but I learned later it was because he could say I was not a student, should any of the trustees or students make a fuss about my presence. Had I realized upon what basis I was taken, I would not have gone. [27]

In other words, unless she succeeds, MIT can simply deny her existence.

1871 Ellen Swallow is the first woman admitted to MIT as an experiment as a "special student." As the only matriculated woman student, she is largely hidden and isolated as is

¹In 2018 at the annual AMITA celebration of Ellen Swallow Richards' birthday, I heard the President of AMITA, Mary Jane Daly MCP '83 read this quotation

her lab. The faculty votes to not include her in the list of students appearing in the annual catalog, but reconsiders the action at the last minute and lists her [18].

1873 Ellen Swallow is the first woman graduated from MIT (Bachelor of Science in Chemistry). She also submits a thesis to Vassar which results in a Master of Arts degree.

1875-76 Swallow marries MIT Professor Robert Richards, a member of MIT's first graduating class. She raises funds from the Women's Educational Association (WEA) of Boston (founded 1871) for women's facilities, including a reception room and a laboratory. The women's laboratory is opened in an "annex" (occasionally reported as a "garage") to the main MIT building in Boston with the goal of affording "every facility for the study of Chemical Analysis, of Industrial Chemistry, of Mineralogy, and of Chemistry as related to Vegetable and Animal Physiology." [35] MIT changes its admissions policy to admit "special students" for "advanced instruction in Chemistry . . . without distinction of sex."



1878 Ellen is appointed to a position as Assistant Instructor and is elected to Fellow of the American Association for the Advancement of Science (AAAS), which demonstrates a professional recognition of her scientific accomplishments in spite of her lack of recognition at her home institution.

1879 Women are given the privilege of being examined for a degree under the same conditions as men.

1882 The original women's lab is scheduled for demolition.

When a chemical laboratory is approved for the new Walker Building, Ellen Swallow Richards writes

The question of space in the new building for the suitable accommodation of women students has been weighing upon my mind for the last two or three weeks, and after consultation with General Walker, Miss Crocker, Miss Abby May, and Miss Florence Gushing, we have made ourselves a self-constituted committee to obtain subscriptions from women interested in the education of women toward a small sum, say eight or ten thousand dollars, which may be put into the hands of the corporation, in order that they may feel justified in including in the plans suitable toilet rooms in connection with each of the laboratories and a reception room somewhere in the building which shall be for their use only. If this can be done, the Institute can then say that it is in a condition to receive women. [27], p. 148

MIT decides to admit women as regular students (in chemistry only), so that the new chemistry laboratories will be for both men and women, but the funds raised with WEA will go to a women's bathroom and a parlor/reception room. It is unfortunately noteworthy

that eighty years later students and staff will still complain in *The Tech* of having “to walk a mile to find a ladies room.” When the old laboratories are torn down, Ellen Swallow Richards loses her duties as director of the women’s chemistry lab. Her reduced workload does not last long as she is soon appointed as an Instructor, and she is also given the duties of a Dean of Women, without either the title or added compensation.

1884 Ellen Swallow Richards is appointed an Instructor in Sanitary Engineering at MIT, a position she would hold until her death [27]. Contrary to some reports, she never held the official title of *Professor* at MIT.

The women’s reception room is renamed the Margaret Cheney Reading Room after Margaret Cheney (1855–1884, ’82), one of Ellen Swallow Richards’ students. It provides an “oasis”, “refuge”, “haven” for women students.



THE FIRST MARGARET CHENEY ROOM, IN THE WALKER BUILDING

Photo from *MIT Technology Review* (1921), Vol. 23, p. 545.

The portrait on the wall behind the couch is of Ellen Swallow Richards.

Over a century later the enduring nature of the Cheney Room and the MIT environment for women was emphasized when Emily Wick was quoted in the 9/1/2005 *Technology Review*: “Everybody came there, it was our place. The rest of MIT wasn’t too welcoming.”

1890 Eta Sigma Mu ($\text{H}\Sigma\text{M}$) Society founded — the first club for MIT women students. It begins as a secret select social organization patterned on all-male fraternities, but it soon drops secrecy and actively recruits members, eventually inviting all women students to join. Ellen Swallow Richards is elected an honorary member. In 1895 the name is changed to *The Cleofan*, with its officers and members first published in the 1897 *Technique*. There is a strong overlap of names with the *Young Women at the Institute* list in same book, so the

recruiting seems to have been successful and a few non-students were included in the club. The name *Cleofan* was a popular name for women's clubs in the MidWest at the time.

The Cleofan would last into spring 1934 with regular Friday afternoon meetings and annual spring meetings. Three years later the Association of Women Students (AWS) would be founded explicitly as a revival of the Cleofan. Beginning around 1973 the name began appearing as a more inclusive Association for Women Students, and by 1990 the "for" dominated reports in *The Tech*. I have not yet found a specific date for the official name change.

1893 MIT Women in the Margaret Cheney Room (Courtesy MIT Museum)



The Institute Committee, the undergraduate student governing body, is founded.

1897 Approximately 6.3% of the 1187 MIT undergraduates are women, a percentage not achieved again until 1969 [49].

1900 The MIT Women's Association (MITWA) is founded "to promote greater fellowship among Institute women," specifically for alumnae. Ellen Swallow Richards fears that MITWA "will never be a success, because we have no dormitory life, no campus, and hence no college spirit." Nonetheless Richards is elected as the first president of MITWA.

The Tech 1/3/1901

Tech Alumnae Association.

The first annual meeting of The Association of the Women of the Massachusetts Institute of Technology was held Saturday afternoon, December 29th in the Margaret Cheney room. The lunch tables were decorated with flowers sent in memory of Miss Marion Cheever. Mrs. Henry S. Pritchett, Mrs. William B. Rogers, Mrs. Edna D. Cheney, Miss Laura B. White and Miss Pike were the guests of honor.

Remarks were made by Mrs. Cheney, Miss White, Miss Pike, Dr. Elizabeth Pickford, Mrs. De Lancey, and Miss Forrest.

The Association was formed last June of the non-graduates or special students, and already numbers eighty members. It was decided to invite the seniors to each annual meeting and also to admit graduates to membership.

The following is the list of officers elected: President, Ellen H. Richards, '73; Vice-Presidents, Mabel W. Sawyer, '94, and C. Belle Kenney, '86; Recording Secretary, Nettie M. Willey, special; Corresponding Secretary, Sarah H. Boveesteele, '94; Treasurer, Isabel F. Hyams, special; Auditor, Matilda A. Fraser, '89; Executive Commit-

tee, Alice B. Tyler, Lillie M. Kendal, Mabel D. Clapp, together with the officers of the Association.

It was voted that each Saturday during the year a table should be set apart in the lunch room for the use of the Association.



1904 Katharine Dexter — a member of Cleofan — graduates (Biology) and marries Stanley McCormick — son of Cyrus Hall McCormick, the wealthy inventor of the McCormick reaper who founded the McCormick Harvesting Machine Company, which became International Harvester Company in 1902. She will become a major supporter and fundraiser for MIT women — her endowment was valued at \$51 million in 1997, then the largest from an individual donor. She also becomes a suffragist and a sponsor and financial supporter of the development of the birth control pill.

1906 Here begins a new thread in the story, which only years later will have an impact on the primary theme. Spurred on by President Teddy Roosevelt, the Intercollegiate Athletic Association of the United States (IAAUS) is founded to regulate football and "other collegiate athletics." All early documents refer to participants as "young male," "boy," or "young man." Sports, athletics, and physical education are aimed at "the needs of young white males who they envisioned would be the country's leaders." [14] Women and minorities are invisible.

The name changes in 1910 to *National Collegiate Athletic Association* (NCAA). In the Constitution, By-Laws, and Executive Regulations, women are explicitly prohibited from competition with men in sanctioned events. The rule is not dropped until after the 1972 enactment of Title IX. Quoting Carter [14]:

Things would remain the same at the NCAA until Congress passed Title IX in 1972. In light of that statute, and upon advice of legal counsel, the NCAA rescinded its rule prohibiting female athletes from competing in NCAA-sponsored events. That same year, the first female competed in a NCAA Championship, the NCAA's National Swimming and Diving Championship. But separate championships for women would not be created until 1981.

One might think that the history of the NCAA is not relevant to that of women's sailing as considered here because sailing has never fallen explicitly under NCAA regulation, but

spurred by NCAA threats and power, many individual programs, colleges, and universities adopt NCAA rules in the 1960s for *all* of their intercollegiate sports, which leads to the governing bodies of intercollegiate sailing, notably the ICYRA and its component regional parts, to prohibit participation by women. Hence enough of the NCAA history regarding women's sports is included to understand its impact on women's sailing, and perhaps enough to encourage appreciation by the reader that sailing has remained one of the few intercollegiate sports *not* falling directly under the governance of the NCAA.

1913 The Institute Committee becomes the Undergraduate Association with INSCOMM as its legislative and executive branch, with responsibility for approving student activities.

1913–14 MIT Technology Matrons is founded as a social service organization for wives of the professors and administrators. In 1975 the name changes to the MIT Women's League. In 1922 Technology Dames is formed for the wives of MIT students. In 1972 the name is changed to Technology Community Wives. In 1986 the organization opens to all women of the MIT community, married or not.

Chapter 2

The Move to Cambridge through the First Women's Dorm

1916 MIT moves from Boston to Cambridge, approximately 1% of the students are women. The Margaret Cheney room moves with MIT.

1917 *The Committee on Women's Athletics* founded by physical educators with a goal of standardizing rules for women's sports. Along with similar organizations, it evolves in 1971 into the Association for Intercollegiate Athletics for Women (AIAW). Such organizations for women's athletics are ignored by NCAA for the time being.

1920 The New Margaret Cheney Room in Cambridge





1923 MIT appoints Florence Stiles ('23, Architecture) to an unofficial post as adviser to women students. She becomes Librarian of the Arthur Rotch Library of Architecture in 1931, President of MITWA in 1935, and official “advisor to women students” in 1939.

1930 The *Intercollegiate Yacht Racing Association* (ICYRA) is established, reportedly in conjunction with the first intercollegiate dinghy regatta, the Boston Dinghy Club Challenge Cup. No *explicit* gender-based restrictions are stated in the founding documents.

The ICYRA soon becomes *Intercollegiate Yacht Racing Association of North America* (ICYRA/NA) and, in 2000, changes its name to the *Intercollegiate Sailing Association* (ICSA). We here adopt the ICYRA name as the one commonly used during the main story.

1934 5/5/34 *The Tech* mentions Cleofan activity for the last time. The only MIT organization specifically for women students vanishes from the MIT literature and it is three years before a new organization arises in its place, the MIT Association of Women Students (AWS).

1935-6 Led by Walter “Jack” Wood '17, the MIT Sailing Pavilion is built and opened. The first fleet of wooden Tech Dinghies is designed by MIT Naval Architecture Prof. George Owen and built by the Herreshoff Manufacturing Company — founded by Nathanael (Nat) Greene Herreshoff (MIT 1870) and his brother John in 1878 in Bristol RI.

Tech Dinghy 1936

The first generation Tech dinghies serve until 1952.



1937-8 Cleofan is reincarnated as the *Association of Women Students* (AWS). In addition to providing a social club for the minority of women students, the AWS adds two specific goals: official membership in the previously all-male Institute Committee governing much of undergraduate life and the development of cooperative housing for women students.

**Coeds To Meet Today
In Attempt To Revive
Dormant Sisterhood**

**Representation On Inst. Comm.
Is Among The Aims
Of Group**

1937 11/16
The Tech

In an effort to revive Cleofan, a coed organization which thrived several years ago, the Technology coeds will have a meeting Tuesday afternoon at five o'clock in the Emma Rogers Room.

Coed leaders, who include representatives from the architectural students as well as from the science students on this side of the river, are hoping that the plan for the new society will be approved by the general meeting Tuesday. If the new move is adopted, the coeds will be organized in a unit for the first time in more than three years.

Aims of the new organization will include representation on the Institute Committee for the frailer engineers. Thus far, no coed has ever been elected to a seat on the undergraduate governing body. In addition the new society will run dances and other social events for the women students of the Institute and their guests.

This is one more instance of the coeds attempting to strengthen their position in Institute life, the last innovation was the coed fencing team.

1938

Association of
Women Students
founded.
Constitution
approved by
INSCOMM (2/11
The Tech)

2/15 *TheTech*→
Announced in the
MIT Handbook

**Coed's Club Gains
Institute Approval**

**Association Will Try To Obtain
Suitable Housing For
Girl Students**

Elections for officers were held by the newly-formed Association of Women Students at M. I. T. at the last meeting of the club. At the same time the constitution of the club was voted on and accepted.

Officers for the coming term are: Margaret Whitecomb, '39, Pres.; Frances Emery, '40, Vice-Pres.; Ida Rovno, '39, Treas.; Edith Cameron, '40, Sec'y; Phyllis Winter, '42, and Janet Norris, '42, Representative at large.

The club was organized in an effort to have the coeds in the Institute become more closely associated with one another, and to solve mutual problems more quickly and easily through the cooperation of all the women students. The most important problem now facing the Association is the investigation of the matter of co-operative housing for the coeds.

It is hoped that a satisfactory house can be found soon which will be able to accommodate the entire coed group. If such plans mature, the proposed house will be more in the nature of a Girl's dormitory and will not associate itself with any national sorority.

The new AWS Vice President Frances Emery '39 is listed in Bever (1976) [6] as Frances Glenn Emery Wypler, '39.

MIT wins first Henry A. Morss Memorial Trophy, the North American Intercollegiate Dinghy Championship sponsored by the ICYRA. MIT wins 11 times more out of 25 through 1961, occasionally with women crew. It will not win again until 2018.

1945 Margaret Compton, wife of MIT President Karl Taylor Compton, works with MITWA, Technology Matrons, and Florence Stiles to establish the first MIT Women's Dormitory at 120 Bay State Road in Boston — over 1.2 miles from the MIT campus. It provides 14 beds (later 20) and is supervised by a Women's Advisory Board, not the Dean of Students as are all other student living groups. The original Advisory Board is chaired by the wife of the MIT President Karl T. Compton and has one faculty wife — Mrs Leicester F. (Alma) Hamilton — along with four alumnae and one student. Florence Styles is an ex-officio member. Mrs Margaret Alvord is appointed as Housemother or Dorm Supervisor, a position she will hold until her retirement in October 1957. Unfortunately the number of alumnae on the Advisory Board will decrease and be replaced by members of the Matrons (faculty wives). Stiles states that the dormitory should help improve the esprit de corps of the women students, and hence the graduation rate — women performed well in class in comparison with men, *but only 1 in 20 typically graduated.*

At this time MIT admissions procedures explicitly limit the number of women accepted by the number of available beds either on campus or approved housing with family members

for commuting students, which effectively keeps the number of women first year students at 20 or less.

Chapter 3

Mid Century: Emily Wick, Dotty Bowe, and Frank Bowditch

1946 In September Emily Lippencott Wick comes to MIT as a PhD student in chemistry from Mount Holyoke, where she received her BA in chemistry in 1943 and her MA in organic chemistry in 1945.



Emily Chooses MIT because it has a good chemistry department, her Dad is an alumnus ('06), and it is near Rockport, Massachusetts, on Cape Ann, where her family had spent many happy summers sailing since 1937. She lives part time at 120 Bay State Road.

Emily had grown up in depression era Youngstown, Ohio, and had followed her older sister to Mount Holyoke for the quality education in the sciences at a small college and because of her love of rural New England. She observed in her oral history [52] that she could not consider Williams and Swarthmore because neither college accepted women (until 1970). She arrived at Mount Holyoke in 1939 on the eve of the German invasion of Poland and the beginning of World War II. Her lack of enthusiasm for a big city job in the chemical industry and the encouragement of the chemistry faculty convinced her to continue past her undergraduate degree for a Master's degree, and by the time of her departure for MIT in 1946 she had joined the Mount Holyoke faculty as an Instructor.

1947 Emily joins the MIT Nautical Association in March by getting her sailing card. The cards are allegedly for one year, but the original cards from the early days on are kept in a file by the front desk of the Sailing Pavilion. Emily's card shows she qualified as Crew and Helmsman, but not as a Racing Skipper — because she was a graduate student. In her oral history, she said that she did take advantage of the MIT sailing resources, but not to a great extent because she preferred to spend her free time in

STUDENT No. 1951962913 No. R 282
Wick, Emily L. G
PRINT - (LAST NAME) (FIRST NAME) (MIDDLE INITIAL) (CLASS)
120 Bay State Road Boston Cir. 8696
(TERM MAIL ADDRESS) (TELEPHONE NO.)
384 S. Belle Vista, Youngstown, Ohio
(HOME ADDRESS) (TELEPHONE NO.)
M. I. T. SAILING PAVILION
1947-1948
TO APRIL 1, 1948
A Crew Lawley
Helmsman Coxswain MAR 26 1947
Racing Skipper Bosun
COMPLETE AND PRESENT CARDS AT SAILING PAVILION

Rockport, where she had a succession of sailboats, including an O-Boat, a Star Boat, a Jolly Boat, a Firefly, and finally a Cape Cod Bullseye.

1948 Dorothy (Dotty) Leaman Bowe begins work as a secretary to Professor F.H. Norton in the Metallurgy Department. She quickly expands her acquaintances beyond her Department to include students, faculty, and President Compton. Dotty advises students, coaches for exam preparation, connects students with faculty having similar interests, and learns the problems facing women students and becomes their advocate. At the time, women students were often ignored or harassed by some faculty, staff, teaching assistants, and male students, both in person and in print.

1949 On 26 March the *New England Intercollegiate Sailing Association* (NEISA) is formed in Cambridge as part of ICYRA. Leonard (Len) M. Fowle, yachting editor of the *Boston Globe* and correspondent for the *New York Times*, is a founder and leader of both NEISA and ICYRA, which is made up of such regional organizations as NEISA.

1950 There are 100 women undergraduates.

1951 E. Francis (Frank) Bowditch moves from a position as Headmaster at the Lake Forest Academy in Lake Forest, Illinois, to MIT as the new Dean of Students at the invitation of President Killian. Bowditch replaces Dean Everett Moore Baker, who died in August 1950. The MIT dormitory Baker House was named after Dean Baker. On 31 July 1951 Bowditch sends a memorandum to parents of all newly admitted students, which begins

As your son becomes a member of the M.I.T. community in September as a member of the Freshman Class, I sincerely hope you will feel yourselves also welcomed as a very real part of your son's experience here. This offices wishes to serve you and your sons in every way possible.

The letter continues with the assumption that all new students are sons rather than daughters, yet Bowditch will have a critical role to play in the imminent expansion of the women's program at MIT.

In August Bowditch writes Killian that he has talked with Dr. Hardy about "taking care of women students." Dr. Harriet L. Hardy was a physician with the MIT Occupational Medical Service, and Bowditch describes how Dean Baker had talked with her

about working with women students, it was his concept that she should serve primarily as medical consultant and adviser and not act in the role of dean of women students. She has performed in this capacity but has not gone much further, primarily because of a limitation of time. . . . I believe we were both in agreement that it might be a good idea to ask my wife, Anna, to serve unofficially as dean of women students, at least the undergraduates, for this year until we could better feel the situation and make recommendations for next year.

The bizarre suggestion of considering marriage to a faculty member as sufficient qualifications for an unofficial "dean of women" is unfortunately somewhat typical of the approach of MIT at the time of designating responsibility for the women's program to unqualified, unpaid, and effectively powerless individuals. Happily this would soon be rectified by

the appointment of a paid and qualified — but still largely powerless — staff member, Miss Ruth L. Bean, as an Assistant Dean of Students with specific responsibilities for the women's program. Killian accepted the proposal in a reply on 13 August 1951, in which he went on to inform Bowditch about the existence of the Advisory Board for the Women Students House and named the members, including Mrs. Hamilton as Chair, three members of the Technology Matrons, and two members of MITWA along with ex officio members — the wives of the Chairman of the Corporation, the President, and the Dean of Students. Killian mentioned the existence of problems with regard to the management of the house and that Bowditch might have heard something about them from Mrs. Hamilton.

Emily receives a PhD in Chemistry at MIT and becomes a Postdoc/Research Associate at MIT, then later in 1953 goes to work down Memorial Drive at Arthur D. Little, with access to labs in Kendall Square.

Chapter 4

The Hamilton Committee

1952 The seeds of the Hamilton Committee are sown in an often quoted 24 April 1952 memorandum from Bowditch to Killian and Stratton, with copies to Fred Fassett, Mrs Hamilton, and a few others. It reads

As you know, consideration has been given lately to closing the Women's Dormitory and moving the girls to the campus. At a meeting this week, attended by Mr. Snyder, Mr. Kimball, Mr. Fassett and myself, it was unanimously agreed that any such action should be postponed for a year and that we should recommend to you that immediate steps be taken to study carefully the whole question of the place of women students, particularly undergraduates, at M.I.T.

The present Women's Dormitory is inadequate in size (17 girls) and is too far from the Institute. It is the opinion of many that the place, program, and activities of women students has not been adequately worked out and that, in reality, we face one of two alternatives: eliminate women students, at least undergraduates; or decide we really want women students, plan an adequate set-up, and then deliberately go out and get more good girls. Everyone seems to incline to the latter view.

Dean Fassett is currently gathering data on the history of women students at the Institute, their numbers, records, etc.

Dean Fassett is Associate Dean of Students Frederick G. Fassett, Jr., who is responsible for student residence and later in 1956 will become Dean of Residence. I well remember

his erudite presence at the Inter Fraternity Council meetings where he would often provide quotations in Latin that were lost on me. On 21 May 1952 Dean Fassett sends a memorandum to Chancellor Stratton reporting on a dinner hosted by him and his wife Julie for several residents of the Women's Dorm at 120 Bay State which includes a concise statement of the problems at 120 Bay State Rd:

I think there is little question that the Women's Dormitory presents a fairly serious problem. It appears clear that the girls who live there want their dormitory to be taken into the regular residential system of the Institute. That is to say, they wish its administration and supervision to be centered in the office of the Dean of Students. This desire presents possible difficulties in view of the fact that the dormitory has been and is the principal concern of a group of faculty and administrative ladies who constitute an Advisory Council. My impression is that it is possible that the zest with which the Advisory Council worked earlier may have worn off a bit, that the relationship between the council and the dormitory may perhaps have become routinized. A second basis of serious criticism appears to be the attitude of the house mother, Mrs. Alvord, toward her responsibilities. On this matter the girls spoke with considerable vehemence, although they were courteous about it. I am of the impression that the post has come to be regarded by its occupant as somewhat a sinecure.

Dean Fassett also reports that the women express the desire that ultimately the women should have a larger dormitory on the Cambridge side of the river, suggesting that it should house at least 100–200 women.

In a December memorandum to All Women Students at MIT, Dean Bowditch announces the approval of

the appointment of Miss Ruth L. Bean as Assistant to the Dean of Students. In this position, Miss Bean will have two functions: 1) To administer the Freshman Advisory Council and 2) To serve as Dean for all women students. Thus women at the Institute will be directly represented in the administrative organization of M.I.T. for the first time.

Although Miss Bean will “serve as Dean” and be referred to as “Dean Ruth Bean” in internal and external publications, in fact she will be an Assistant Dean, a member of the staff and not a member of the faculty and hence her impact will be limited. At least it is an official and paid position. An Associate Dean who is a faculty member and has genuine authority will not be appointed for over a decade, and she will be an outsider with no experience with women engineering and science majors. Bean, a graduate of Simmons College, does bring a strong administrative experience and will prove to be a strong advocate for the women's program during her time at MIT.

Dean Bowditch concludes his memorandum with a list of issues needing attention, including the demand for dormitories on the Cambridge side of the river and housing for a larger number of women students, athletic programs for women, better communications regarding scholarships and financial aid, and improvements in the Margaret Cheney Room.

The second generation Tech dinghy fleet arrives, fiberglass instead of wood and built by Cape Cod Shipbuilding.

1953 MITWA begins a survey of alumnae showing a strong success rate; 93% were employed and active in their specialized fields [37].

Revised ICYRA regulations make explicit the rule that member institutions must be either all male *or coeducational* and that women-only institutions are not allowed. ICYRA correspondence show attempts to follow closely the strict standards of the NCAA “with possibly some modifications.”

1954 On 6 January Dean Bowditch sends a memorandum to President Killian to renew and reinforce his request for a study of the women’s program and the need to choose between two alternatives. He writes

It has become increasingly apparent since I have been at the Institute that there was need for a complete objective study of the place of women students at the Institute. Since Miss Bean joined the Dean’s Office she has had the opportunity to get to know a great many of the women students currently enrolled and to have a first hand feel of many of the problems which we face in connection with women students.

The Women’s Advisory Board for the women’s dormitory is so constituted that actually there is only one active person left on the committee and she is slated to retire at the end of this academic year. It therefore seems particularly appropriate we take some steps at the present time to make as comprehensive a study as possible.

Miss Bean and I would therefore like to recommend that you appoint the following ad hoc committee, charge them to make a study of the place of women students at the Institute, and to report to you their recommendations for a long range program.

Mrs. L.F. Hamilton
Mrs. Nathaniel Sage
Mrs. Elspeth Rostow
Mrs. Lockhart B. Rogers
Mrs. Alfred R. Wypler, Jr.
Dean Ruth L. Bean
Prof. John T. Rule, Chairman

Because this committee plays a central role in his history and in the development of the women’s program at MIT, its proposed members merit some introduction. The proposed Chairman, Professor John T. Rule ’21, is the Head of the Section on Graphics and Head of Course IX, general Science, General Engineering and Science Teaching. He had served as Chair of the MIT Student-Faculty Committee and as a member of the Undergraduate Policy Committee. In 1956 he will replace Bowditch as Dean of Students. Alma Hamilton (Mrs Professor L.F. Hamilton) had long served on the Women’s Advisory Committee of the Women’s Dormitory. Mrs Nathaniel Sage is Dorothy Blair Sage, the wife of MIT Geology Professor Nathaniel McLean Sage Jr. Mrs. Alfred R. Wypler, Jr., née Frances Glen Emery, is an MIT alumna in architecture, class of 1939 (Course IV). As mentioned earlier, she was elected Vice President of AWS in 1934. Her husband worked for Liberty Mutual Insurance

Co. and was not associated with MIT. She was active in AMITA leadership and would have made an excellent member of the committee. Mrs. Elspeth Rostow is an MIT Assistant Professor of History (in 1952 she became the first woman professor at MIT) as well as Mrs Professor W.W. Rostow. She is the only woman faculty member proposed, but she is not an MIT alumna. Mrs Lockhart B. Rogers is the wife of MIT Chemistry Professor Lockhart B. Rogers. Dean Ruth L. Bean is the Assistant Dean of Student Affairs, but neither a faculty member nor alumna of MIT,

The proposed committee consists mostly of faculty wives (Hamilton, Sage, Rostow, Rogers), of whom one is also an Assistant Professor in humanities and another has experience with the Women's Advisory Committee and the Technology Matrons. None of these proposed committee members is clearly qualified by education, training, or experience to make useful contributions to a committee charged to study all aspects of the place of women at MIT. Only one member, Wypler, is an MIT alumna. Dean Bean is clearly experienced, but she is only a staff person without the clout of a faculty member or senior administration official and she is not an MIT alumna. Professor Rule, the proposed Chairman, is well qualified and an influential figure at MIT. In 1956 he will replace Bowditch as Dean of Students. Strangely, however, he is not appointed to the committee.

The Memorandum goes on, recommending that the committee be kept small and listing several names that could be added as possible consultants to the committee. Five of the consultant candidates listed are faculty wives (including the wives of the President and Chair of the Corporation, who is an ardent supporter of the women's program) along with three deans, including Bowditch.

On 9 March President Killian sends a confidential memo to Pietro Belluschi, the Dean of the MIT School of Architecture and Planning, suggesting that his long range campus planning include consideration for meeting the housing need for women students with an entire dormitory adjacent to the President's House, possibly including other women's activities including the Technology Matrons and Technology Dames along with the Emma Rogers, Alice Maclaurin, and Margaret Cheney rooms. The memo is copied to Provost Stratton, Dean Bowditch, and Dean Fassett.

President Killian reacts to Bowditch's memo, writing to Provost Stratton on 18 March:

Frank Bowditch some time ago proposed the appointment of an ad hoc committee to make a study of the place of women students at the Institute and to make recommendations for a long-range program. I enclose a memorandum which he wrote to me about this.

I have talked with him subsequently with the thought that we could best approach this problem through discussions in a group wholly within the Institute, and I ventured the suggestion that you might be willing to bring together a group of representative officers and faculty members to discuss this problem and to provide a background for us to reach some administrative conclusions. The appointment of a committee including alumnae and wives seemed to me to pose difficulties for it would be a committee not to answer many questions about what the Institute can and cannot do. . . .

Killian's recommendation against faculty wives seems reasonable, the proscription against alumnae is not — the alumnae are the ones most intimately aware of the fundamental problems.

1955 In January Chancellor Stratton appoints a committee:

Professor Leicester F. Hamilton '14 (Chair)

Assistant Dean of Students Ruth L. Bean

Suzanne Z. Deutsch, Technology Matron's representative on Women's Advisory Board (Mrs. Professor Martin Deutsch)

Assistant Professor of History Elspeth Davies Rostow (Barnard '38, MA Radcliff '39, Mrs. Professor W.W. Rostow)

Associate Prof. Kenneth R. Wadleigh '43

Professor Hamilton, the Chair, has no apparent qualifications for the committee other than he is a faculty member and his wife has volunteered for years for the Matrons and as a member of the Women's Advisory Committee. The committee includes Dean Bean and Professor Rostow as recommended by Bowditch. Deutch's sole qualification seems to be that she is a faculty wife and member of the Women's Advisory Board for the Women's dormitory, most of whom are faculty wives. Stratton's invitation letters to Mrs Deutch, Professor Rostow, and Dean Bean states that Hamilton had requested that each be invited to be a member.

Wadleigh is a faculty member and years later he will become Dean of Students. As recommended by Killian, there are no alumnae members. In hindsight, the the committee seems ill constituted to accomplish its assigned goals. As will be seen, it fails spectacularly to accomplish anything. But it is likely not the fault of the members of the committee, there is no record that Professor Hamilton actually convened the committee or that they ever actually met. It is certain that the committee never produced a report, as will be seen.

In April Katherine Hazen '28, the President of MITWA submits the results of the alumnae survey begun in 1953 to Provost Stratton. Over 70% of the living women graduates and 30% of the special students up to 1952 had responded.

Then Vice President and Provost Stratton responds to Hazen:

The survey of former women students comes at a most appropriate time, and it will indeed prove of value.

As I am sure you are aware, the Institute recognizes the need of a new assessment of the place of women students in this academic community, and wishes to make sure that it is meeting its obligations. This has led to the establishment a few months ago of Professor Hamilton's study committee, and your survey will clearly be of great assistance. Stratton to Hazen, 4/14/1955

The next day Stratton sent a copy of the report to Hamilton, but unfortunately subsequent evidence suggests that the Hamilton committee never read the extensive MITWA survey nor did Hamilton ever mention it or its conclusions in his later "report."

Women students

For some time this office has felt the need of an extensive study of the place of women students at the Institute and for a closer integration of women students into the whole educational program for undergraduates. The special committee appointed by the provost and chaired by Professor Leicester F. Hamilton is now at work, and its recommendations should contribute immeasurably to the general welfare of women students.

from 1955 President's Report

Unfortunately President Killian’s hopes prove overly optimistic.

In December the MIT Director of Athletics writes to the Athletic Administrative Board and Committees for the Planning of Athletic Facilities and Program regarding “basic assumptions that it is felt must be made in considering the need for additional athletic facilities at M.I.T.” including

- 2.0 That we plan in the Athletic Program to include facilities for approximately 200 women.
- 2.1 That there be no intercollegiate program for women.
- 2.2 That there be a limited intramural program for women, such as badminton, archery, bowling, etc.
- 2.3 That there be no required program for women.



After several discouraging attempts to participate in MIT sports, Antonia (Toni) Deutsch (later Schuman) is welcomed by Jack Wood and Hatch Brown at the Sailing Pavilion — provided she can handle a Tech Dinghy and a 110 and tie the prerequisite knots. In 1956 following her crewing in several regattas she becomes the first woman to receive an MIT Junior Varsity letter. She is AWS President in her Junior Year, and later namesake of MIT *Toni Deutsch Regatta*.

— *but women are still not allowed in the Athletic Association or Varsity Club!*

1956 Strong sentiments against admitting women undergraduates continue to be expressed in publications, classrooms, rumors, letters, and meetings. Common arguments are the heavy attrition and poor graduation rate of women students and that women’s education should be left to ‘specialists in the field’ such as Wellesley and Mount Holyoke and Radcliffe and Smith, . . .

The *Harvard Crimson* chimes in:

Coeds, Even

Few people are aware that M.I.T. is a coeducational institution. Indeed, to Most Harvard students, the idea of a feminine mind concerning itself with electrochemical engineering or mining and metallurgy seems somewhat revolting.

from March 2, 1956 *Harvard Crimson*

6/21/1956 Margaret Alvord, the Housemother of 120 Bay State Rd, writes to Hamilton:

In reply to your request for a statement of my opinion as to whether girls should attend M.I.T. or not, I can say in confidence that over the period of years that I have been Director of the Dormitory, doubt as to whether they belong in the undergraduate school has grown into certainty that they do not. . . . they would

receive a a more rounded education under more normal conditions in any of a number of good colleges . . . Then if they still are serious about it, they could come to M.I.T. as graduate students . . . if, as Dr. Killian asserts in his annual report, we are committed to produce as many active scientists as possible and to maintain the standards of excellence expected of us, then there is little in the records of the girls who have lived in the dormitory in the past ten years to justify their continuance in the undergraduate school.

Years later she explains in a 1970 letter to Emily commenting on Emily's 1970 report [49] on women students at MIT:

While I was still at 120 orders came around I suppose from Killian, for us to take a stand on should we or should we not continue to have girls — and I found myself in distinguished company — Elspeth Rostow, Dr Herbert Harris and I opposing undergraduate coeds. We drew such immature lulus now and then that I felt a girl could get her undergrad work or at least 1st or 2 years just as well at Wellesley or Holyoke.

It should be noted for context that complaints were made to Dean Bowditch regarding Alvord's lack of support for and interest in residents of the Bay State Rd women's dormitory, including those described in Dean Fassett's 1952 memorandum to Chancellor Stratton mentioned earlier. It is curious that Alvord counts Elspeth Rostow among those who opposed the admission of women as undergraduates. I found no evidence in the archives that Hamilton committee member Elspeth Rostow opposed the admission of undergraduate women students to MIT. On the other hand, Herbert I. Harris, MD, MIT medical director and psychiatrist, who was not a committee member, writes the most extreme negative letter in the Archives on the issue of admitting women as undergraduates. In his 7/31/56 letter to Hamilton he writes:

. . . The business of raising a family takes from five to fourteen years at a minimum. During this time, had a male student had her place, he could have been contributing profitably in his professional capacity. At this time, when there is such a shortage of engineers, one wonders if we are justified in taking positions away from male students for female . . . With so much conflict at an emotional level, it becomes plain that their intellectual efficiency must almost inevitably become impaired . . . I think that the presence of women students in the student body has a definite leavening effect and their presence is almost universally welcomed, I believe, by the faculty and the student body. My concern is for their own welfare, however, and not for the pleasure and ornamentation they can contribute to MIT.

Harris' letter strikes me as poisonous, condescending, arrogant, and misogynous. Alvord's reference to his being "distinguished company" seems wildly inappropriate.

Arguments against continuing coeducation are countered by referral to the MITWA alumnae survey of 53–55 [37] and by AWS and others with statistics of successful careers by women MIT graduates in research, teaching, medicine, law, business, and government.

Many observe that the graduation and attrition rates would improve if the resources were provided to improve the academic and personal environment for women students. But these points are not mentioned in the archived files relating to the Hamilton committee, only the invited, negative comments from Alvord and Harris sent directly to Hamilton are included.

On 18 September 1956 *The Tech* announces that during the summer John T. Rule, Professor of Engineering Graphics and MIT Class of 1921, became the new Dean of Students and Mr. E. Francis Bowditch has been appointed as a special advisor to President Killian.

President Killian eventually gets impatient with the lack of any apparent action and prods Stratton to prod the Committee. Stratton writes to Hamilton

There is now a very strong feeling expressed by the President and by Jack Rule that we must come to grips with the problem of women students, and arrive at some early decisions . . . Even though your report may be still incomplete, may I not have whatever is ready . . . I should particularly like to have an expression of the views of the several members of your Committee on what course the Institute should follow. It is not all necessary that these should be unanimous.

10/17/56

Hamilton submits a confidential memo to the President, which becomes known as the *Hamilton Report*. No copies of this memo are known to exist and much of the understanding of the “report” and its impact follows the excellent 1981 article by Evelyn Fox Keller [29]:

. . . The committee’s deliberations continued until the early fall of ’56, culminating in a report recommending that M.I.T. cease accepting women students as undergraduates. No copy of the final report is available, but some of the correspondence affecting the final recommendation is. . . In retrospect, it appears that the Hamilton Report marked a crisis in the relations between M.I.T. and its women students. The report itself produced a vociferous reaction. Many were disturbed by its conclusions; even more were disturbed by the picture it portrayed¹ . . . The choices were clear: either to discontinue the admittance of women undergraduates or to strive to improve their circumstances. The Record shows that the former alternative was unequivocally rejected, and gradually, efforts were begun to effect the latter.

¹ By at least one account, the reaction was so acute that all copies of the report were ordered burned.

The footnote is Keller’s.

If sufficient copies existed to produce a “vociferous reaction,” one wonders what happened to all those copies. It seems likely that the reaction was based on second hand comments and rumors.

Keller’s story was based on the information available to her at the time, but more details became available in 1986 when the files on women students were transferred from the President’s Office to the then recently created MIT Archives and another story emerged. *There was no formal committee report*, Hamilton provided *his own* statistics and *his own opinions* arguing that women undergraduates have no place at MIT. Subsequent correspondence between Stratton and committee members suggests that they were unaware of the contents of Hamilton’s confidential memo — supposedly representing the committee deliberations. I could find no evidence that there ever were any meetings or deliberations of the committee. These revelations can be found in MIT Archives AC132, Box 18, *Women Students* Folder in notes by Loretta H. Mannix (LHM), Stratton’s highly regarded Administrative Assistant:

CONFIDENTIAL

Copies to:

YEROUSEK 4-27-86

This so-called "report" was submitted to Dr. Stratton following his letter to Hamilton of 10/17/56 and per his 10/22/56

Reference will be seen in this file to a "Hamilton report." This was not really a report at all of the committee of which he was chairman but was an assemblage of confidential statistics and information about women students collected by Hamilton. When JAS pressed him for progress on his committee's review of the status of women students at M.I.T., he produced these statistics. The Hamilton Committee per se apparently never did submit a report. Nor were any statements prepared by the committee members, as far as can be determined. Because of their confidential nature, this collection of statistics is filed in the safe.

LHM

Note for files: When Dr. Stratton's files for this period were being transferred to the Archives the section containing the above-mentioned confidential statistics were removed from the report and filed in a restricted folder. What remains is the so-called "Hamilton Report." *A complete copy of the report is in the restricted file.*

LHM

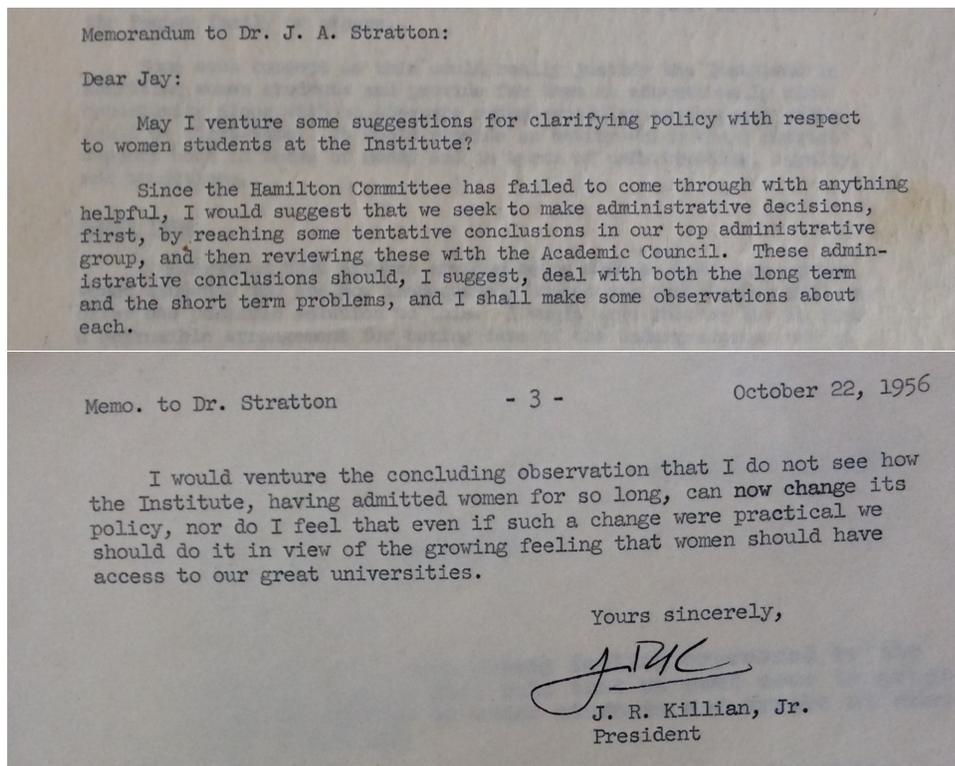
7-18-86

In a personal communication to me, an MIT Libraries Archivist told me that the “restricted” file mentioned by Mannix does not exist in the Presidential files or archives. It should be noted that confidential files are usually made public after 50 years, but files considered extremely sensitive (such as salaries) can be sealed for 75 years. The above evidence supports the conclusion that if an actual report by Hamilton’s committee beyond his own individual memoranda ever existed, it no longer does.

Chapter 5

Decision

Killian’s reaction to Hamilton’s memorandum is swift, writing to Stratton on 10/22/56:



1957 On 4 February Provost Stratton finishes a four page draft of a new policy on undergraduate women that has been approved by the President and the Academic Council [48]. Following a brief history of women at MIT he raises three major questions:

first, whether in view of the very large disparity in numbers it is possible to provide a small group of women undergraduates with a sound environment for

study in an institution primarily designed for men; second, whether it will ever be economically feasible to provide women students with facilities for extracurricular activities comparable to those enjoyed by the men; and third, whether means can be found for proper housing of all undergraduate women.

Shortly thereafter Stratton answers these questions:

Afer a great deal of thought and discussion a decision has now been made to continue to admit a small number of undergraduates, and to seek to improve their residential environment and to better their opportunities for development in their professional fields.

The policy admits that improvement will be slow and in the near future the number of women will not be large. The remainder of the policy justifies the policy based on the traditions of the Institute and its duty to make its resources available to all “with qualities of character and intellect equal to the task.” Short term housing is described and the supervision of women’s dormitories will become the responsibility of the Dean of Residence. In the short term, Bexley Hall will provide housing for women undergraduates in addition to to 120 Bay State Road. Stratton summarizes the policy at an informal tea for resident women students 4/24/57. A goal is announced of eventually providing a new residence on campus capable of housing all women undergraduate students and some graduate students.

On 5 February Stratton circulates a draft statement of the policy to Dean Bean and Professor Elspeth Rostow, members of the Hamilton Committee, Prof. B. Alden “Bat” Thresher ‘20 — the director of Admissions at MIT from 1936 until his retirement in 1961, Dean Fassett, and Professor Hamilton. In his 5 February letters to Rostow and Thresher, Stratton attributes the arguments and statistics in opposition to admitting undergraduate women to Professor Hamilton himself, not to Hamilton’s committee.

The Tech article 4/26/57

Bexley Hall is located at 46-52 Massachusetts Avenue in Cambridge. It was purchased by MIT in 1939 and converted to an undergraduate dormitory. The 33 beds in Bexley allotted to upperclass undergraduate and graduate women students together with the 18-20 beds for first year students from 1958 onward constrained the number of women admitted as undergraduates to MIT.

Women students faced restrictions called “parietals” on hours and guests in their living quarters, which governed visitors and required signing in and out. The official reason for these requirements was the mollification of concerned parents.

More Coeds Later, But Fewer In Fall, Sees Stratton At Tea

“Women are here to stay, and it is our hope to make them feel more a part of the MIT community” is the Institute’s official policy on Tech coeds as voiced by Dr. J. A. Stratton at an informal tea given at Moore House on April 24 for resident women students.

Dr. Stratton and Dean Fassett explained to the coeds that their place in the MIT community has been under serious consideration for some time and it has now been decided to expand and amplify facilities specifically for women as rapidly as means can be found.

Since it is considered unwise and improper for the Institute to admit Freshmen women beyond its ability to accommodate them, plans have now been made for housing 14 Freshmen in the present Women’s Dorm at 120 Bay State Road, with 3 upperclassmen in residence as unofficial advisors. An additional number of women commuters meeting the required academic qualifications may also be admitted to the Freshman class.

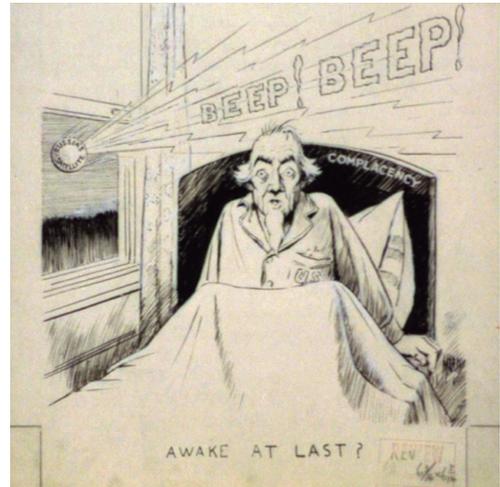
Also, a separate section of Bexley Hall will be made available to 33 undergraduate women in September with Prof. and Mrs. William F. Bottiglia as faculty residents.

Girls who would like to live in Bexley next September are asked to sign up in room 7-102 as soon as possible.

Margaret Alvord writes Dean Ruth Bean on 27 February announcing her intention to retire in November and requests Bean to begin searching for a successor.

In the Autumn Emily Wick returns to MIT as a Research Associate in the Food Technology Department, where she is the only chemist.

4 October Sputnik is launched; the shortage of engineers is noted in the press.



1958 February 25 *The Tech*: “Coeds Fight Expulsion From INSCOMM, Seek Status as a Group”

INSCOMM removes AWS representation claiming that “the number of coeds at MIT is so small as to invalidate any claim of representation” An adjacent article “Tech Coeds: Play A Special Role” concludes with

Last spring, Chancellor Stratton said that, ‘Women are here to stay, and it is our hope to make them feel more a part of the MIT community.’ To many, it would seem that the latest Institute Committee action lacks the ring of hospitality.

ICYRA notes that “where sailing is a regulated sport, it is a part of the athletic program which in most colleges is regulated to some extent by outside groups such as the National College Athletic Association (NCAA). The policy of this and other similar groups does not recognize the participation of women with men” and begins consideration of creating an Affiliate Membership for women’s sailing associations [5].

MIT sailing team includes Carol M. Dorworth '60, who crews for Team Captain Dennis Posey '59 in the New England and the National championship regattas sailed in Firefly sloops, winning both championships.





1959 Emily Wick is appointed Assistant Professor in the Department of Nutrition and Food Science at MIT. 20 women reside in the 120 Bay State Women's Dorm. MIT releases document *The Woman at MIT* [?] arguing the need for additional housing for women students.

Julius Stratton becomes MIT President.

Chapter 6

The leading edge of a wave

1960 The class of 1964 arrives, along with a few transfers from other schools, including Judith Selvidge '62, the author of *I Didn't Know They Had Girls at MIT* (2014), a fascinating book providing a sage viewpoint of a world-traveled young woman transferring to MIT as a Junior from the University of Geneva.

Emily is the *only* woman faculty member at MIT outside of Humanities. Emily's formal responsibilities for MIT women lay in the future, but by default she is a role model and is actively talking with women students about the Institute and careers.

Leaders of MITWA convince their sister alumna Katharine Dexter McCormick '04 of the importance of an on-campus women's dormitory, and McCormick pledges \$1.5M towards the project.

[the dormitory is] an unprecedented opportunity to advance the professional development of our women students. Women have made substantial contributions to scientific and technical progress in the past . . . Women's potential for achievement in these fields represents one of the great latent resources of the country.

from the 1960 President's Report

1961 Kenneth R. Wadleigh becomes Dean of Students in July. The title changes to Dean of Student Affairs in 1962.



The University of Rhode Island, an NCAA school, announces it will follow NCAA rules in *all* sports and exclude women from all intercollegiate sports and refuse to play any teams including women [32].

NEISA adopts NCAA prohibition (to be effective in 1966), but actively supports formation of the Women’s Intercollegiate Sailing Association (WISA) and the New England WISA (NEWISA) “To encourage and promote women’s intercollegiate sailing; to form college sailing teams; to inspire interest in sailing; to create and instruct sailing groups.” The idea seems to have been first proposed in Lucie Sheldon’s 11/19/60 letter to Len Fowle, whose 12/5 reply suggests bringing it up at a 12/10/60 NEISA meeting. The idea is further discussed in a 2/18/61 meeting of several women students, administrators, and Fowle at Walker Memorial at MIT, where a constitutional committee including MIT’s Eleanor (Ellie) Chance is appointed and an initial regatta schedule for spring 1961 is drawn up and the MIT women’s sailing team comes into existence.

Eleanor Chance plays a key role in the development of women’s sailing as the MIT student representative in the February 1961 meeting at MIT initiating the organization WISA and NEWISA, their relationship to NEISA and ICYRA, and scheduling the first spring regattas. Earlier in 1960 she is mentioned in the 11/18/1960 *The Tech* as a member of the MIT team along with Marjory Harper as a participant in “an unusual intercollegiate event” — a regatta for women sailors held at MIT. She is still on the NEWISA mailing list in 1962, but then disappears from MIT records, I could not even find a sailing card for her at the MIT Sailing Pavilion. It turns out, however, that her life was intimately involved with sailing — but only briefly at MIT. On 2 February 1964 *The New York Times* published an announcement of her marriage to Bradford N. Swett along with the biographical information that she is an alumna of the Baldwin School in Bryn Mawr, Pennsylvania, and the University of Pennsylvania and that she also attended the University of Uppsala in Sweden and MIT. Her father, George Britton Chance, was a Professor at the University of Pennsylvania School of Medicine and a 1952 Summer Olympic Gold Medalist in 5.5 Meter sailing. Eleanor built a significant sailing reputation sailing Finns and later larger boats at the New York Yacht Club under the names Eleanor Chance Swett and Eleanor Chance Burgess. She sailed with Jerome (Jerry) Milgram ’60, who is coincidentally mentioned in the same *The Tech* article mentioned above, and was reported to have taken command of Milgram’s controversial cat-rigged catch *Cascade* following races. Milgram was a star MIT sailor and a long-time professor at MIT. Eleanor appears again in 7 August 1972 *New York Times* as second-place skipper of the *Cascade* in the New York Yacht Club’s Astor Cup race. Eleanor’s daughter Hannah Swett was the Rolex Yachtswoman of the Year in 2004. Ellie Chance’s role is clear from the earliest documents in the NEWISA archives in the Mystic Seaport Museum Collections [39]:

18 February 1961
Walker Memorial
Cambridge, Mass.

The meeting was called to order at 1:30 by Polly Hogan.

Present were: Boston University, Lealie Andrews; Conn. College for Women, Lucie Sheldon; Jackson, Kaarin Stieglitz, Heidi Haner, Sheila Thompson, Lannie Dawson, Denise Valtz, Polly Hogan; MIT, Ellie Chance; Mt. Holyoke, Carolyn Dorrance; Pembroke, Miss Janet Lutz, faculty, Betsy Hammett; Radcliffe, Mrs. Theodore F. Parker, faculty, Mary Jo Wheeler, Ann Knowles; Regis, Pat Lilly; URI, Mary Davey, Diane Pierson; Wellesley, Jr. Paige, Sybil Healy, Sally Oakes; Wheaton, Nancy Mann.

1. Mr. Leonard N. Fowle, Graduate Secretary of NEISA, spoke for a few minutes on the opportunities for joining the Inter-collegiate Yacht Racing Association of North America, if desired, and the advantages resulting from such action.
2. A spring schedule was set up, copies of which are to be sent out to each college.
3. It was decided that any college that registered for a meet and did not attend or withdraw at least two weeks before the date of the regatta would be held responsible for payment of the entry fee.
4. A committee was appointed to set up a constitution to be voted on at the first spring regatta. Members are: Nancy Mann, Ann Knowles, Polly Hogan, Ellie Chance and Betsy Hammett.
5. The meeting was adjourned at 5:30 P.M.

Respectfully submitted

Polly Hogan

WOMENS INTERCOLLEGIATE SAILING ASSOCIATION
Regatta Schedule Spring 1961

- April 3rd, Monday - Open regatta at Medford, Mass.
Reporting time - 9:30 A.M. Five dollar entry fee, bring life jackets.
Wheaton, Pembroke, Radcliffe, Mt. Holyok, Wellesley, BU, Regis,
MIT, Jackson, Conn.
- April 15th, Saturday - Tufts College Cup at Medford
Reporting time 12:30 P.M. Five dollar entry fee, bring life jackets.
Radcliffe, Mt. Holyok, Wellesley, BU, Regis, MIT, Pembroke, Conn,
Wheaton, URI
- April 19th, Wednesday - Regis Invitational at Regatta Point, Worcester, Mass.
Reporting time - 9:30 A.M. Five dollar entry fee.
MIT, SSC, Conn, Radcliffe, Mt. Holyok, Pembroke, BU, Wellesley, Regis.
- April 22nd, Saturday - Pembroke Invitational at Pembroke
Reporting time - 12:30 P.M.
SSC, Conn, URI, BU, Radcliffe, Mt. Holyok, Pembroke, Regis, Wheaton,
Jackson.
- May 6th, Saturday - URI Invitational at URI
Reporting time - 12:30 P.M.
SSC, Conn, URI, BU, Radcliffe, Mt. Holyok, Pembroke, Wheaton.
Alternate - Jackson.

NEISA provides high level liaisons with NEWISA, advice (led by Len Fowle and Jack Wood), organizational cooperation, and the long term goal of an eventual merger. MIT plays active role as a host for NEISA regattas.

Unfortunately, the MIT women's sailing team and NEWISA are not able to sustain this initial activity and little more happens until autumn 1964 when once again MIT fields a team and NEWISA organizes five spring regattas.

1962 Sailing and fencing are approved as women's club sports, but women have very low priority in using MIT athletic facilities.

The following photo of Emily at the Sailing Pavilion is published in 1962 with an article on Emily, the attached commentary by Emily on her MIT sailing is taken from her oral history [52].



Herzbrun: Sailing? Did you [take] advantage of the MIT... did they have a sailing team?

Wick: Well, I did. Sure MIT did, but I did not do a lot of it there because I had a boat out here in Rockport and I did not want to use up my goof off time in town. But, when things got thick, I would walk down to the sailing pavilion and smell the fresh air.

1963 Stanley McCormick Hall opens, attracting national publicity. Many people believe that McCormick Hall is named after Katharine, but even today *no* building at MIT is named in her honor. The first tower of McCormick Hall houses about 125 women, significantly increasing the number of women admitted. 120 Bay State Road and Bexley cease to be women's residences. Undergraduate women are required to live in McCormick or with parents or close relatives.

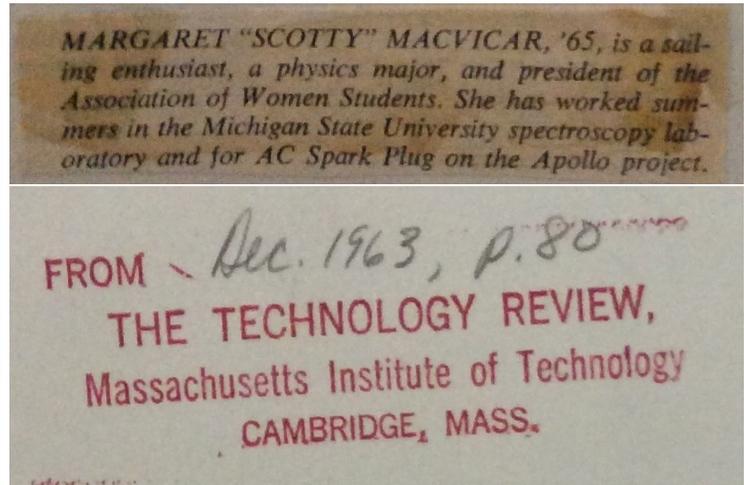


Dedication of Stanley McCormick Hall



Mrs McCormick's reminiscent remarks being applauded. From left: Mrs McCormick, Dr Killian, President Stratton, Mrs Killian, Mrs Stratton, Margaret MacVicar '64, Mrs Compton

Margaret (Scotty) MacVicar is the president of the AWS and an avid sailor.



Dean Wadleigh hires Radcliffe Associate Dean Jacquelyn Mattfeld as Associate Dean of Student Affairs, responsible for the women's program. For the first time, a faculty member rather than a staff member is responsible for women students, which now number about 248. The *MIT Catalog* mentions "up front" that MIT is a coeducational school, even though it has been accepting women since 1871, albeit in small numbers.

Emily becomes the first tenured woman on the MIT faculty when she is promoted to tenured Associate Professor.



Left: Emily in her office, Right: Talking with students in McCormick Hall

1964 Emily decides to learn more about other aspects of MIT and signs up for the Committee on Student Environment, where she meets Dean Wadleigh.

The number of women applying to MIT doubles relative to 1963, likely because of opening of McCormick Hall.



Dotty Bowe is appointed secretary to Dean Mattfeld when Prof Norton retires and she moves into the Dean's office.

The AWS, headed by Margaret MacVicar '65 (BS '64), sponsors a national symposium "American Women in Science and Engineering" with Carol Gustafsen Van Aken '65 as chairman. MITWA, faculty members, and Dean Mattfeld provide support.

MITWA becomes the Association of MIT Alumnae (AMITA).

A women's athletics program is formally established beginning with 44 women students. The planning for the second tower of McCormick Hall includes a gym, recreation room, swimming pool, and dance studio.

WISA incorporates several ICYRA procedures at MIT. Ruth Beckley '67 chairs the NEWISA Scheduling Committee. Beckley is a member of the MIT women's sailing team organized in the fall of 1964 in anticipation of the expected enforcement of the prohibition of women on the Varsity sailing team in 1966. In 1967 Beckley will win the first MIT Pewter Bowl Award, given annually to the "Female senior who has shown the highest qualities of inspiration and leadership in contributing to women's athletics."

In response to appeals from women's sports and athletics organizations and its own long range planning committee, NCAA categorically rejects participation of women in their championship events: "The games committee shall limit participation to eligible male athletes." [14, 33]

1965 "...from 1965 when it was an earth shattering first occasion to have *fifty* women enrolled in the first year class" (Emily Wick, *Tech Talk*, 3/28/1973)

On 21 January the MIT Athletic Board invites Dean Mattfeld and several undergraduates to discuss the women's athletics program at MIT. The undergraduates include Ruth Beckley. The following excerpts from the minutes of the meeting provide added information on renewed attempts to form an active women's intercollegiate sailing program.

M.I.T. ATHLETIC BOARD MINUTES

FEB 17 1965

January 21, 1965

Present: Professor G. A. Brown, Chairman
Messrs. S. Edgerly, T. P. Heuchling, G. P. Strehle
Professors K. F. Hansen, J. W. Mar
Dr. A. O. Seeler, Mr. O. R. Simha, Professor R. H. Smith,
Dean K. R. Wadleigh
Messrs. W. R. Brody, W. David Carrier, III, R. E. Lucy,
R. I. Mandle and F. S. Souk

Absent: Messrs. J. S. Merriman, Jr., and E. Pollard

Guests: Mrs. J. A. Mattfeld, Associate Dean of Student Affairs
for Women, Ruth Beckley, Barbara Desmond, Sandra Foote,
Diane Pickering and Martha Redden

The meeting was called to order at 7:45 p.m. by Chairman Brown.

I. DISCUSSION OF THE ATHLETIC PROGRAM FOR WOMEN AT
M.I.T., INCLUDING OBJECTIVES, PHILOSOPHY AND THE
PRESENT SCOPE OF THE PROGRAM.

Chairman Brown suggested that Dean Mattfeld review
for the Athletic Board the current statistics on the
number of women enrolled at the Institute, and indicate
as accurately as possible the probable increases in
enrollment.

Ruth Beckley '67, Sailing Team. A women's sailing team, organized this past fall, attracted a group of 15 women, mostly freshmen and sophomores. Coaching was provided by the staff at the Sailing Pavilion and several members of the men's sailing team. The team competed in 5 regattas sponsored by the New England Women's Intercollegiate Sailing Association. Highlight of the season was

an M.I.T. victory in a regatta of 17 women's college teams on the Charles River on November 7 and 8, 1964.

The Academic Council *again* takes up question of women's future at the institute, with some faculty and administrators *still* regarding training women undergraduates as a risky venture. After much argument, the Council finally endorses raising the number of women undergraduates to 400, raising the percentage from 3% almost to 9% (but it takes years to happen).

Mattfeld leaves MIT in the spring for Sarah Lawrence to become Provost and Dean of the Faculty, later moving to Brown University and then to be President of Barnard.

After discussions with Dotty, Wadleigh chooses Emily Wick as the new Associate Dean of Students with responsibilities for women's programs.

Emily joins another new Associate Dean of Student Affairs, future Chancellor, President, and strong supporter of diversity — Paul Gray '54.

Emily joins Dotty in Room 5-108 with the intent of making it a Dean's office which welcomes students at any time. The office is said to always be full of students.

"Between 1963 and 1972, *Dotty with Emily Wick were the women's program at MIT.*" [11]

Dotty's "goal was to know every woman student, and she and Emily had an office with an open door in the corridor between the Main Lobby and the Hart Nautical area, an excellent place to pop in for a brief talk, especially when coming from McCormick on a rainy day, and entering the building at 55 Mass Ave (with the anchors)." [11]



50 girls in first year class and 337 women total, about 4% of student body.

1966 A woman interviewed for an article reports that MIT is very "expensive, it will cost her \$1,700 for tuition and \$1,130 more for room and board in McCormick."

May 2 Emily writes to the architect (Prof Herbert Beckwith) of the second tower of McCormick Hall regarding the design of the athletic facilities. She continues active involvement in the project through 1967.

Tech women sailors continue their success in the first year of their banishment from Varsity sailing by the NEISA. The article incorrectly states that the women's sailing team came into existence in spring of 1962 and that its first intercollegiate competition was in the spring of 1965. As we have seen, the team was first formed and had its first intercollegiate regattas in 1961.

Coed sailors host New Englands

Tech's women sailors are ready to defend their New England Intercollegiate title this weekend. The girls will be going for their third straight blue ribbon in the championship regatta, scheduled for MIT's Sailing Pavilion.

The women's sailing team came into existence in the spring of 1962 after the New England Inter-

collegiate Sailing Association announced that they would bar women from competition by the fall of 1966. Under the guidance of coach Stu Nelson, and with the assistance of the Tech varsity sailors, the coeds entered their first competition in the spring of 1965. Since then, the girls have competed in twenty-five New England

Women's Intercollegiate Sailing Association regattas, which have averaged eight schools entered per competition.

Their record in two years of competition has included two New England Championships, thirteen first places, and seven runner-up finishes.

Fourteen schools to compete

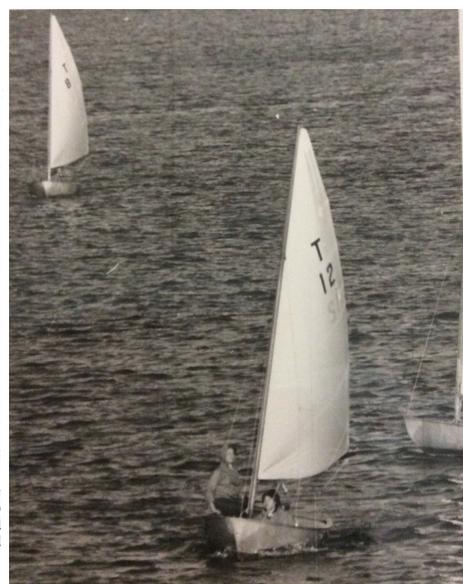
By far the most active women's sport at MIT, sailing has attracted over twenty coeds to the intercollegiate competition. Fourteen New England intercollegiate women's teams will be lined up for the starting gun Saturday. Women's sailing teams from Boston University, Connecticut College, Emerson, Emmanuel, Merrimack, MIT, Northeastern, Radcliffe, Rhode Island School of Design, Simmons, Tufts, Vernon Jr. College, and Wellesley are entered.

The MIT girls are hosting the championships and are eager to maintain an unblemished record of having never lost a regatta held on home waters.



The women's sailing team for 1966-67: shown with coach Stu Nelson are (from left) Alix Smullin '68, Sue Downs '68, Maria Karpati '69, Ruth McDowell '67, and Duggie Gordon '68. MIT hosts the New Englands this weekend.

The Tech, 10/22/1966



The Tech, 11/1/1966

"Coeds first in Man Lab Regatta; win trophy for third straight year"

1967 NEWISA and her sister organization, the Middle Atlantic Association of Women Sailors, (MAAWS), organize the first women's nationals for 1967.

Fran Charles, MIT Sailing Master (at MIT since 1992), relates stories told to him by Hatch Brown, former MIT Varsity Sailing Coach and Sailing Master, and Stu Nelson, women's Varsity Coach at MIT for 39 years and first full time women's coach for the ICYRA:

During the mid 1960s Emily spent many weekends organizing and hosting New England women-only sailing regattas and was instrumental in founding the New England Women's Intercollegiate Sailing Association when the New England Intercollegiate Sailing Association would not allow their participation in varsity sailing. Emily even organized the do-it-yourself sandwich lunches for the regattas. She also lobbied the Athletic Association for approval of women's sailing as a varsity sport.

Excerpts from *Athletics and the Women Students at MIT*, 17 March Memorandum from Associate Dean Wick to Dean Wadleigh:

The MIT Women's Sailing Team has a distinguished record in that it won the 1966 New England Intercollegiate Women's championship and was undefeated throughout the fall season. . . . Because of their demonstrated activity in athletics and their need for assistance and a structure within which to schedule meets, the question of admitting women students to the MIT Athletic Association was discussed at a meeting of the Athletic Board. Their membership was approved by the Athletic Association in February 1967.

Women's crew is also admitted to membership in the Athletic Association. But women are not yet permitted in the Varsity Club. MIT views the women's Varsity Sailing team as having officially begun in 1969 with the Athletic Department funding of a women's coach, Stu Nelson — a decision strongly influenced by Emily [30].

Later in the year women's sailing and crew are designated "varsity teams" retroactive to 1963, all other women's sports considered "club sports."

Undergraduate women are finally permitted to live off campus without the requirement that they live with family, provided they were over 21, or secured parental permission. Some women were not able live in MIT housing because of lack of space, and so their living off campus was necessity rather than choice.

1968 McCormick Hall East opens. Mildred Dresselhaus moves to MIT from Lincoln Labs with an appointment as the first woman tenured Full Professor following a year as a visiting professor. "Millie" becomes involved with women students and begins discussions with Emily and Dotty on admissions policy and other issues.

Emily Wick is promoted to Full Professor. Emily is the first woman at MIT *promoted* to Full Professor from within the ranks. She is the second female tenured Full Professor after Mildred Dresselhaus.

1969 Senior House becomes first coed living group with 6 women. The residence requirements for men and women become the same — only freshmen are required to live in Institute houses. All other students may elect to live on or off campus [49].

Kenneth Wadleigh becomes MIT Vice President and later (1975) also Dean of the Graduate School.

There are 217 women in a class of 3955: 5.5%, 3% of the School of Science faculty are women.

Professor Daniel Nyhart, an expert on finance in the MIT Sloan School of Management, replaces Wadleigh as Dean of Student Affairs. Dean Nyhart decides an Associate Dean focused on women's affairs is no longer necessary and informs Emily and Dotty of his intention to dissolve their office and to not replace Emily and Dotty.

According to Sarah Simon '72, Emily decided to leave MIT after the position of Associate Dean of Student Affairs with a designated responsibility for the women students was cut, but she decided to stay at least until she had succeeded in arranging for Dotty's promotion from "secretary" to "staff."

1970 In March Emily Wick submits *Proposal for a new policy for admission of women undergraduate students at MIT* [49] arguing that admissions requirements should be made the same for women as for men — in particular that MIT should no longer limit the number of undergraduate women by the number of on-campus beds. The report includes a history of women at MIT backed by extensive statistics on performance, housing, activities, athletics, and contributions. Two striking examples are given by the figure showing enrollment and the table showing graduation and attrition data.

The recommendation is adopted by MIT in 1971, at a time when 249 women students were housed on campus, including 239 in McCormick and 6 in Student House In September Wick releases a shorter report *Women Students at M.I.T.* including many of the same ideas [50].

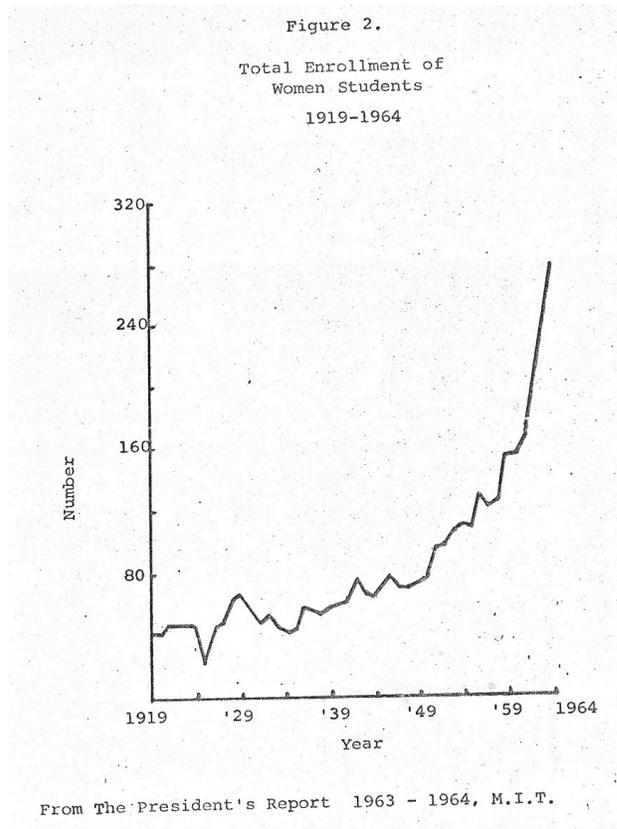


Table II. Graduation and Attrition Data for Men and Women in the M.I.T. Classes of 1960-1969

Class	Number Entering Class ¹		Percent Graduated (BS) ^{2,3}		Percent Disqualified (D ₁) ^{2,4}		Percent Withdrawn ⁶	
	Women	Men	Women	Men	Women	Men	Women	Men
1960	22	914	36	89	27	*	36	*
1961	16	883	56	87	12	*	31	*
1962	18	923	66	85	22	*	11	*
1963	21	915	62	90	9	*	28	*
1964	25	874	84	86	4	*	12	*
1965	23	885	87	90	0	*	13	*
1966	23	869	91	92	0	11	9	0
1967	39	889	92	94	0	10	8	0
1968	46	861	87	86	0	11	13	3
1969	50	918	100	82	2	8 ⁵	0	10

* Unknown

¹ From Presidents Reports. Women Students Classified by Years; Classification of Students 1956-69.

² From Records in Office of Dean for Student Affairs. Transfer students included.

³ From Presidents Reports, Degrees Awarded 1959-1969. Transfer students included.

⁴ From Committee on Academic Performance, Policies and Procedures, May 1969.

⁵ From Committee on Academic Performance, February 1970.

⁶ Calculated by difference.

ICYRA recognizes NEWISA women's nationals and sets policies and procedures. Sailor Carole J. Bertozzi '70 wins the 1970 MIT Pewter Bowl Award.

1971 Emily's report and recommendation adopted by MIT.

Emily writes for the 1971 MIT *President's Report*:

The year 1971 has special significance for women at M.I.T. because it marks the one hundredth year since the first woman enrolled at the Institute. Ellen Richards wrote of her early experience, "I came to the institute in January 1871 ... I was at that time shut-up in the Professor's private Laboratory very much as a dangerous animal might have been. Whenever the classes came into the 1st year Laboratory the door was kept carefully shut and I was expected to stay in. I was not allowed to attend any classes."

Today the situation is very different. Not only do undergraduate women have a diversity of living groups from which they may choose but they will constitute more than 10 percent of the entering class of 1975. ...

After discussion of advances in women's intercollegiate sports teams, Emily observes that

A high point in the history of M.I.T. women was reached when Kathy Jones '71 and Maria Bozzuto '73, members of the Women's Varsity Sailing Team, received M.I.T.'s highest athletic award, the Straight T, at the Athletic Association's Awards Banquet.

This is the first time that women are invited to the annual Awards Banquet! Jones wins the 1971 MIT Pewter Bowl Award and Bozzuto wins it in 1972.

MIT women win the 1971 ICYRA National Women's Dinghy Championship.



Emily steps down as Associate Dean and returns to being a full time professor. Room 5-108 closed. Dotty is promoted to a staff position and moves to Financial Aid. Emily recommends that someone be appointed to continue her work. Wadleigh writes to Killian 10/20/1971 that “Emily played the key leadership role in the successful development of a strong identity and character for undergraduate and graduate women at M.I.T. during her tenure on the administration.”

Emily’s resigning as Associate Dean and the administration’s decision to not replace her results in a strong student reaction articulately expressed by excerpts from 12/7/71 Letter from Carol L. Epstein ’72 and Paula F. Stone, ’72, to MIT community. Copies to *The Tech*, President Weisner, Provost Gray, Dean Nyhardt, . . .

To Members of the Institute Community:
 We are writing this letter in response to the retirement of Emily Wick from the Deans’ Office and the circumstances and issues surrounding her decision. With the demise of Dean Wick’s office as of January 1 1972, the women students of M.I.T. will lose an integral, personal representative in the higher echelons of the Institute as well as a congenial, intimate friend who is sensitive to the problems that we, as women, must cope with in a male-run, male-oriented environment.
 To our knowledge, after consulting several faculty and members of the administration, no definitive action is being taken to replace Dean Wick. The needs and position of women at the Institute have apparently failed to generate a serious commitment. We are concerned that unofficial policies will remain the same; that they will perhaps be re-examined and discussed, but that nothing will be done; that the urgency for our full recognition as members of the M.I.T. community will be ignored, and the entire white-washed, appeased, and silenced.

A standard argument used against the establishment of a separate office for women at M.I.T. is that women and men are equal, therefore there is no need for such an office. We argue that we are indeed equal, but that we have not been granted equality; although we are intellectually equal, there are parts of the Institute in which we (and our friends) have experienced personal harassment and discrimination. . . .
 As of January 1, 1972, the office of Dean of Women Students will be empty, and will *de facto* have been abolished . . .
 We would also like to set up an Institute Committee on Women’s Affairs at M.I.T. as an investigatory body to look into areas of concern to women, especially in response to input from the community. . . .

The reference to “personal harassment and discrimination” resonates with current events and *Sexual Harassment of Women: Climate, Culture, and Consequences in Academic Sciences, Engineering, and Medicine*, the recently published Consensus Study Report by the National Academies of Science, Engineering, and Medicine [41].

The MIT administration reacts to strong outcry, decides to appoint *another* Ad Hoc Committee, this time an Ad Hoc Committee on the Role of Women Students at MIT.

Meanwhile, Emily, Mildred Dresselhaus, and Paula Stone organize a meeting for women students in January to discuss issues of common interest, but they forget to put “students” in the title of the flyer and draw a much larger audience than intended.

1972 The January meeting called and chaired by Dresselhaus and Stone draws over 100 women (and two men). The meeting includes women from all aspects of MIT life and raises awareness of the needs and frustrations of women at MIT. The group takes as a name the *Women’s Forum* and begins regular meetings.

21 January: The official *Ad Hoc Committee on the Role of Women at MIT* is appointed, including Women’s Forum members Dresselhaus and Stone ’72 (co-chairs), undergraduates Sandra Yulke ’74, Carol Epstein ’72, Lynn Mahony ’72, Christina Jansen ’63, as well as graduate students, faculty, a member of the MIT Corporation, administrative assistants, and a psychiatrist from the MIT Medical Department.

Emily provides the cochairs with a collection of relevant documents from 1935 on, including her chronology of women students at MIT along with letters, reports, memoirs, statistics, surveys, and articles — many of which are mentioned and cited in this talk.

23 June: Title IX of the Education Amendments Act of 1972

No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under [any education program or activity](#) receiving Federal financial assistance.

Colleges and universities are not required to comply until 1978, but intense activity begins immediately. Title IX is strongly supported by the AIAW, which had been formally founded in 1971 as a combination of many women’s intercollegiate athletic associations with the goal of promoting serious competition for the collegiate women which the NCAA had obstructed since its founding. Their early reaction to the legislation is the optimistic hope that women’s involvement in the administration, coaching, policy, and funding will increase and no longer be in the shadow of the NCAA male-dominated view of sports [13].

The NCAA fights the legislation ferociously with lobbying, influence, and lawsuits. The intensity of the attack is described in many sources, including [4], [13], [14], [34]. The NCAA’s executive director Walter Byers states that Title IX signaled the “possible doom of intercollegiate sports,” and many argue that doom includes what few women’s sports exist at the time. These tactics all fail, so the NCAA adapts an old industry strategy — it initiates efforts to take over governance of women’s sports rather than ignore or fight their existence. That will keep their power over policy, budgets, and personnel intact while taking over the rapidly growing programs for women’s athletics. It also has the effect of putting the control of women’s sports in the hands of the largely male NCAA administration as well as changing the stated goals of the AIAW goal placing student interests and education first with the NCAA’s goals of economic power and winning at any cost.

Returning to the MIT thread, the Ad Hoc committee produces a report on the *Role of women students at MIT* by the end of spring [1], converging at a speed almost incredible for Academia. The report begins with

A discriminatory attitude against women is so institutionalized in American universities as to be out of the awareness of many of those contributing to it. Decisions may indeed be made with no deliberate effort to exclude women — at least at times — but policy must be judged by outcome, not by pronouncement. And here we find inadequate numbers of women at all levels, most significantly so at senior levels. The section “Athletic Report” begins with

There is one major problem that coed athletes at MIT encounter; they are often not taken seriously by the Athletic Department. This, however, is merely a reflection of the attitudes which pervade society in general with regards to women athletes. Rather than providing positive motivation, as for men, which involves tangible rewards, e.g., varsity letters and recognition, women athletes must overcome a negative social image, that is, one of being competitive and unfeminine.

The report makes several specific recommendations, including

- active recruitment of women
- publicity about women at MIT
- alumnae Educational Councilors interviewing applicants
- department awareness to admit more women
- a system of women advisors
- more women graduate students
- Emily Wick’s position should be filled

Dean Nyhart hires Anne E. Ellison as an Assistant Dean of Student Affairs in response to a recommendation of the Ad Hoc Committee, but the position is only a staff appointment rather than the previous position of Associate Dean held by Emily.

Ellison still holds the post in 1974–5, when she writes in the annual President’s Report:

Women’s Program I was a member of the Committee on Educational Policy (C. E. P.) subgroup on women students, which met second term. There was an increasing number of requests from women students to review the report of the Ad Hoc Committee on the Role of Women Students at M.I. T. of spring, 1972, to see how extensively the recommendations had been followed, and to examine some areas in depth that required more work or were not examined in the original report.

The advisability of a new ad hoc committee was considered; however, it was learned that Professor Lisa Steiner of the Department of Biology had been asked to chair a four-person subgroup of the C. E. P. to review the position of women students at M. I. T. That subgroup, enlarged to include women students, myself, and others, met several times in the spring to identify issues and will recommend whether an ad hoc committee is needed.

In other words, not much has happened since the 1972 report except consideration of yet another ad hoc committee.

On the bright side, the students on the Ad Hoc Committee on the Roll of Women win a Karl Taylor Compton Prize — “the highest awards presented by the Institute to

students and student organizations in recognition of excellent achievements in citizenship and devotion to the welfare of MIT.”

Emily receives a Bronze Beaver Award from the MIT Alumni Association with the citation

In your progression through M.I.T. as student, teacher, dean, friend, and mentor to women students at M.I.T., you have made a unique contribution to the life of the Institute; you have been advocate and model for a generation of women students at M.I.T. from a handful to an abiding presence. Your contributions to the growth and spirit of women at M.I.T. have left a lasting mark on the Institute.

On 20 October 1972 Wadleigh writes Killian quoting the citation and adding his own praise of her work for MIT. He closes his letter with

Emily commutes to M.I.T. every day from a delightful, small, old house on the shore overlooking Rockport Harbor.

At home she is a charming and gracious informal hostess. One can't help but sense both in her house and her manner a delightful combination of good taste and breeding and nautical informality — family heirlooms and Bliss Marine's nautical equipment — with a little of the chemistry laboratory in the “galley.”

When Emily's sailboat is not moored just off her own shorefront, it is probably being whisked behind her little blue VW squareback to a race elsewhere.

She is a great sailor, but I don't think she has been able to spend as much time recently as she would like either at Rockport or sailing from our own nautical pavilion.

All in all, Jim, a very accomplished — always interesting and always interested — great lady.

The Physical Education Requirement is finally extended to women undergraduates, giving them equal priority of access to athletic resources..

Mary Rowe is appointed as special assistant to the president and chancellor for women and work.

In *A Century of Women Students at M.I.T.* (1973) [51], Emily describes the accomplishments and progress during her time as Associate Dean of Students. While noting the progress of recent years, she emphasizes several remaining tasks, including:

First, there must be more women faculty at both junior and senior levels. Women students need to observe and to communicate with women who have been successful in their field of study. ...Such role-models are necessary if women are to be encouraged to seek careers.

Second, there must be more women students. M.I.T. — as a leading university in our society — has a responsibility to educate those people whose talents can best be met by the Institute's resources.

1973 Emily leaves MIT to become Dean of the Faculty at her alma mater, Mount Holyoke College.

The Ad Hoc Committee Compton Prize is used to fund a women's intercollegiate sailing trophy in Emily's name. A plaque is "Presented in appreciation for her efforts on behalf of women students" to Emily at MIT in June 1973 by Paula Stone on behalf of the AWS.

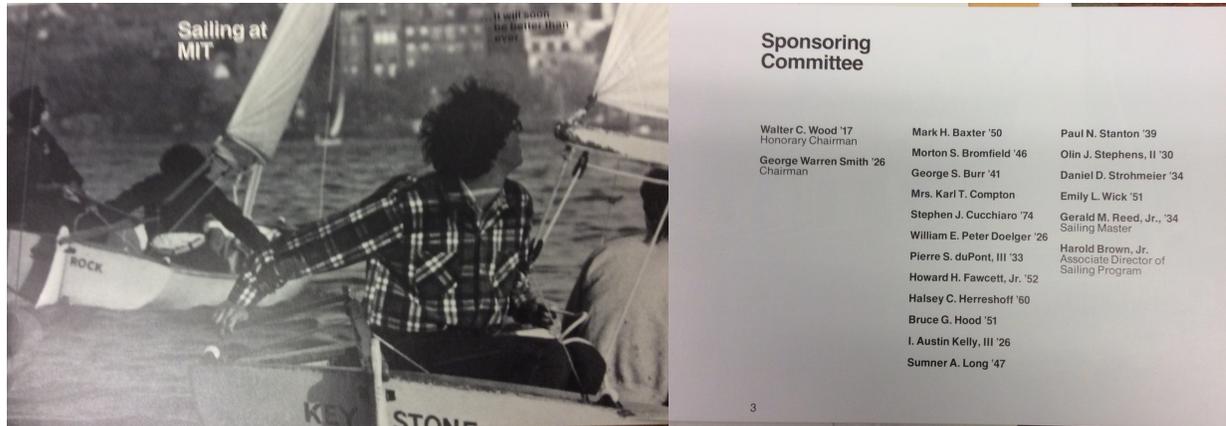
As a sailing aside and a coincidental mixing of the stories told here, the boat image on the plaque is a Cape Cod Bullseye, a modified version of the wooden 1914 Buzzards Bay 12 $\frac{1}{2}$ designed by Nat Herreshoff and built by his company. Cape Cod Shipbuilding acquired the rights to the original design in 1947 and produced a modified version (fiberglass, modified transom, cuddy) designed by Nat's son Sidney which became known as the Cape Cod Bullseye or, simply, Bullseye [12, 26, 15]. The Bullseyes were introduced to the Rockport sailing community by George Warren Smith '26, who owned the Bullseye *Beaver II*, a name likely derived from the fact that the beaver is the mascot of MIT, and possibly also that Smith as a member of the MIT Nautical Association might have sailed the MIT Firefly *Beaver*.



Beaver preparing for a regatta in 1957

Emily was one of the first skippers to join the new Rockport Bullseye fleet. Smith was a good friend of Emily's and a longtime supporter of MIT sailing as well as New England

sailing, and like Emily he was a recipient of the MIT Alumni Association Bronze Beaver Award (1964). In 1973 Smith chairs a committee to fund the third generation of Tech dinghies, designed by Halsey Herreshoff (SM '60). Emily is a member of the committee.



Years later Emily will buy *Beaver II* from the Smith's estate, and *Beaver II* is still raced in Rockport by Emily's niece Laura Hallowell.

Coincidentally Cape Cod Shipbuilding is responsible for both Emily's Bullseye and the second generation MIT Tech dinghies, and both inherit an inspiration of Herreshoff.

The MIT women's varsity sailing team win the 1973 ICYRA National Women's Dinghy Championship.

Chapter 7

Epilogue

1976 May 29 NEWISA and ICYRA agree to merge NEWISA into NEISA and become a self governing committee for women's sailing. At the MIT Sailing Pavilion the Women's Intercollegiate Sailing Committee (WISC) is formed from NEWISA and its sister organizations "to encourage and promote women's intercollegiate sailing." The merger is accomplished by ICYRA direction in 1978.

1978–1983 Emily serves as a term member of the MIT Corporation.

1980-1982 The NCAA finally fights back against Title IX by planning and implementing championships in women's sports, developing competing programs to the those of the AIAW and its component and sister organizations. The NCAA offers incentives to institutions to join it rather than the AIAW, including free travel funds for women's teams and free

women’s memberships for institutions whose men’s teams joined the NCAA. It signs TV contracts to televise its own women’s teams championships on the same day as AIAW championships, costing the AIAW its primary financial source [13]. The NCAA dwarfed the AIAW, which could not survive the onslaught. The AIAW filed an antitrust suit, but lost because the judge did not believe that the NCAA was or threatened to be a monopoly. The AIAW collapsed financially in 1982 and the NCAA took over almost all intercollegiate men’s, women’s, and coeducational sports. Carpenter and Acosta in [13] draw the sad conclusion on unintended consequences:

As the brief, ultimately sad history of the Association of Intercollegiate Athletics for Women (AIWA) will show, a model of competitive but humane intercollegiate athletics once existed. Ironically, the NCAA demolished it in the wake of federal legislation intended to provide equity, including equity for women in sports.

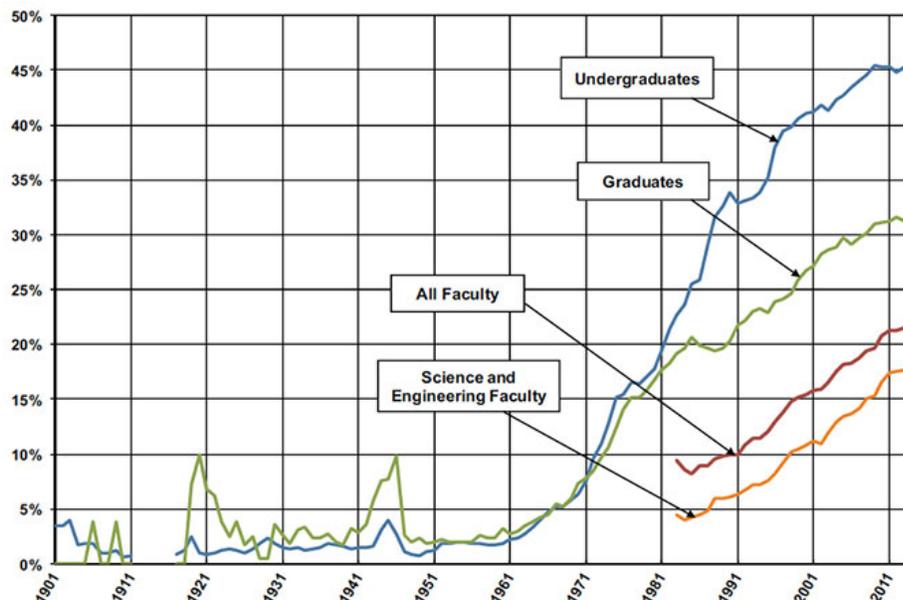
Happily for the primary story being told here, sailing remains an independent sport, not directly governed by the NCAA. Unfortunately, they are still affected by rules agreed to by institutions belonging to the NCAA.

1988 Emily becomes the first female Commodore of the Sandy Bay Yacht Club in Rockport, Massachusetts.

2003 Funds are raised for the fifth generation of Tech Dinghies. Hull Number 4 is named *Emily Wick* and funded by the Sandy Bay Bullseye Fleet and the Friends of Emily Wick. The boats are built by Fusion Technology of Portsmouth Rhode Island. Emily is a sponsoring donor to the upgrading and renovation of the MIT Sailing Pavilion [36].

2004 Donors to the Fifth Generation fleet of Tech Dinghies include Friends of Emily Wick and the Sandy Bay Bullseye Fleet. Hull # 4 is named the *Emily Wick*

2014 Women at MIT from <http://web.mit.edu/fnl/volume/264/numbers.html>



Note the large discrepancy from undergraduates to faculty! A major problem in growing the number of women students in engineering is the small number of women faculty of engineering. Too few women faculty, role models, counselors, and advisors!

2018 Women in the MIT entering the Class of 2022 constitute slightly under 50% of the class.



Women's Sailing Wins Emily Wick Trophy; Coed Sailing Takes Sixth at NEISA Team Race Championship This Weekend



Chapter 8

Parting Thoughts: The Bottleneck

Much of my academic career after 1980 was devoted to the issue emphasized by Emily in her 1973 article regarding the need for more women faculty as role models. Granted the greater problem is the lack of diversity in many professions, including engineering academia — but the sparsity of women engineering faculty is a component of the general problem. The recent National Academies report [41] provides extensive evidence of the problems caused by and the damage done by this failure, especially in the case of women. My interest began with my first experience supervising a woman PhD student in electrical engineering at Stanford beginning around 1980, and increased as over the next decade and a half my research group grew from 0% women to almost 50%. In 2002 several of my students successfully nominated me for a Presidential Award for Excellence in Science, Medicine, and Engineering Mentoring (PAESMEM), which brought with it a Grant from

the National Science Foundation which was explicitly constrained to fund work in the area of the award title. This led to two workshops in 2004 and 2007 organized by my students, former students, and me on mentoring for academic careers, which in turn resulted in two coedited books [44], [20] based on the presentations and discussions at the workshops. The workshops and books emphasized faculty diversity at all levels. In later years I gave several talks on the subject to both tiny and large audiences, including talks as a distinguished lecturer of the IEEE Signal Processing Society (2006–2007), at conferences, and at faculty meetings. I close this article on the history of coeducation at MIT with a few global observations on the statistics of women in electrical engineering and computer science gathered during my research on the topic. The data proved difficult to obtain, and even when I retired in 2013 there were few reliable reports available. The first table is from 2002, and it was used for my presentation at the workshop associated with the PAESMEM award ceremony and at the two workshops that resulted from the award.

Percentage of Women in a few EE/ECE/EECS Faculties in 2002

University of Delaware	0%	UC Berkeley	11%
UCSD	2%	Penn State	11%
USC	4%	Stanford	11%
Cal Tech	5%	Cornell	13%
UT Austin	5%	University of Washington	20%
Princeton	7%	Duke	30%
University of Michigan	7%		

MIT was not included because I did not have reliable numbers at the time. The numbers came from trusted colleagues, who had access to internal data. The intent was to count only genuine regular faculty appointments and not visiting and non-tenure-track appointments, which often inflated the claims of percentages on university websites. Two points stand out. The first is that many of the numbers are abysmally low. Many excuses were offered at the time, which usually boiled down to the candidates being unavailable or the institution had tried hard but failed to entice women candidates. The numbers also pointed out that there were exceptions, major research universities who did significantly better, usually by a combination of active recruiting and enforced institutional requirements for fair and open searches. The University of Washington was high on the list, largely because of the efforts of Denise Denton MIT '82 during her time as Dean of Engineering and the rules for search committees that she compiled and enforced. There were no quotas for appointments, but there were requirements for search committees to demonstrate diversity in the short lists compiled for interviews and visits or provide a credible reason for why they were unable to do so. The litany of lame excuses common at the time for recommending only clones of the male faculty were not acceptable and could result in the failure of the search recommendations to proceed. Denton wrote the book (actually, a manual) on fair and open searches, which is well-summarized by

It's a search committee, not an envelope-opening committee.

Denise Denton

Years later I updated the numbers. Again I used insider information I trusted to get regular faculty numbers without amplification by non-tenure-track positions and soft-money visiting hires. By this time there had been a thorough study of engineering faculty

by gender [Nelson and Brammer (2010) [40]] for the top 50 research universities with a breakdown by fields, so the average was known to be slightly below 10% women in EECS. The significant rise of Cal Tech (perhaps made easier by the small number of individuals involved) was remarkable, and showed the influence of a dedicated university President promoting active searches rather than simply lip service. MIT did relatively well, which reflects both the institutional policy and the fact that it draws on its own graduates, and its percentage of women graduates has been steadily increasing. I often used this table to remind colleagues at Stanford that in spite of Stanford’s claims of superiority, on this measure it was clearly below average. The addition of a single woman late in 2010 — increasing the total Electrical Engineering Department faculty to 42.5 — pushed them above the national average, improving from 8.6% to 10.5%, which is another reminder of how small some of the numbers are and the large impact of a few appointments.

2010 data

Institution	% women	total faculty
CalTech	19.2%	13
Duke	18.5%	27
University of Washington	17.5%	40
UCLA	13.0%	46
U Wisconsin	13.0%	38.5
RPI	12.8%	39
MIT	12.0%	151
Georgia Tech	11.4%	114
Texas A&M	11.1%	72
Princeton	10.9%	27.5
Purdue	10.8%	83
Rice	10.0%	20
U Michigan	9.8%	71
UC Berkeley	9.8%	40.5
Top 50 Average (2007)	9.7%	
Cornell	8.8%	34
Stanford	8.6%	41.5
Carnegie-Mellon	8.2%	49
U Illinois	8.2%	85
Northwestern	7.8%	51
NC State	7.4%	54
U Maryland	6.8%	62
UT Austin	5.0%	68
USC	4.9%	61
UCSD	3.8%	52

↑ 10.5%, 42.5 in 8/2010

There have been and there remain serious problems of pipeline and pool, but the numbers of women Ph.D.’s have been steadily increasing, while the percentages of women faculty have not reflected those increases. Worse, the number of women Deans, Provosts, and Presidents remains minuscule. It is notable that even small increases can result in a significant percentage increase when the numbers are small, and that percentage increase can have an impact with more role models, more diverse experience, and more effective faculty, which in turn will draw more students. While MIT has achieved balance in the overall student body, it is not there yet in engineering and in several specific engineering fields, including electrical engineering and computer science.

Are things any better now? I don’t know, I retired in 2013, but for a final talk at Stanford in 2017 I provided the 2015 Stanford EE statistics of the following table with my own annotations:

School of Engineering
 Department of Electrical Engineering
Faculty Demographics by Gender
 September 1, 2015

School of Engineering				
School	Rank (broad)	Female	Male	Total
Engineering	Assistant Professors	11 22%	40 78%	51 100%
	Associate Professors	9 18%	41 82%	50 100%
	Professors	18 11%	139 89%	157 100%
Total		38 15%	220 85%	258 100%

vs. e.g. UCSD $5/52=9.6\%$ ↑
 Caltech $3/19=15.8\%$ ↓
 U Washington 17% ↓

Department of Electrical Engineering				
Department	Rank	Female	Male	Total
Electrical Engineering	Assistant Professor	3 38%	5 63%	8 100%
	Associate Professor		5 100%	5 100%
	Professor	2 5%	36 95%	38 100%
Total		5 10%	46 90%	51 100%

(actually it's $5/51=9.8\%$ ↓)

My own institution seems stuck at around 10%, although they now have women as Dean of Engineering and Provost. Faculty change comes much more slowly than student change.

So how is progress to be made in diversity in faculty at all levels, including the upper echelons? Much has been said and written on the topic during this millennium, but it is worth mentioning a few recurring themes that have been effectively developed by a few institutions:

- Active faculty recruiting across a wide spectrum. In particular, *fair and open and active searches*. A basic principle of optimization teaches that the richer the pool discovered in a search, the better the final candidates.
- Leadership must deal with residual and often unconscious bias, which often means educating search committees (who too often see no problem in reproducing themselves). The schools with the best records had activist Presidents and Provosts!
- Creating a respectful, productive, and fulfilling environment. (Another leadership challenge.)
- Lip service is not enough.

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<http://alumweb.mit.edu/groups/amita.old/esr/swallow.html>

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Original slides of MIT October 2017 talk are available at ee.stanford.edu/~gray/TitleIX.pdf
Stanford talk slides available at ee.stanford.edu/~gray/Stanford5-3-18.pdf
Sandy Bay Yacht Club Slides emphasizing MIT sailing available at ee.stanford.edu/~gray/SBYC_Wick.pdf

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