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—Thomas Haigh

Biography

Bernard "Bernie" Goldstein

Goldstein has enjoyed a remarkably diverse career during his more than four decades in the computer industry. He founded and ran many software and services companies, was one of the most prominent figures in the computer industry trade association ADAPSO, and finally used his knowledge and contacts to build a new and successful business as a mergers and acquisitions advisor in the software industry.

A career in business was no surprise for him, following as it did an undergraduate degree in business from the Wharton School of the University of Pennsylvania, which he soon followed with an MS earned from Columbia's Graduate School of Business during the evenings. But while Goldstein was entrepreneurially driven, neither his formal education nor his three years in the Navy had given him the slightest knowledge of computer technology. His introduction to the computer came in 1958 as a cofounder of a service bureau called Computech. The other two founders were friends with engineering backgrounds, who had hit upon the idea of starting a firm to use a computer to solve business and scientific problems.[1]

The three partners had only $5,000 of capital to invest, but that was enough to rent a small office. Like many early computer services and programming firms, Computech did not originally have its own computer. To begin with, the partners paid other bureaus for the use of the computer and punched card equipment needed to solve their clients' problems, relying particularly on IBM's Service Bureau Corporation. The newly available IBM 650, the first mass-produced computer and the first one cheap enough to replace conventional punched card equipment,

Figure 1. Goldstein after his time as ADAPSO chair.

made computer time an affordable commodity for many businesses. Fifty thousand dollars from an investment bank completed the firm's capitalization.

Goldstein worked primarily as a salesman, knocking on doors and offering to solve problems of all kinds. This netted Computech a remarkably diverse range of customers, including contracts for the US Navy, the Johnson Development Center, and Union Carbide. Its projects included analysis of royalty distributions for music publishers, and the crunching of market research data, both of which grew from single consulting projects into important sources of specialized, recurring business. The best consulting jobs, in Goldstein's view, were those that created unique experience and specially developed programs that were applicable to other firms in the same industry.

The three bachelors worked long hours, marrying along the way. Goldstein recalls that marriage made them worry more about the stability of the firm, but they had the advantage that their wives were now available to impersonate secretaries when clients visited the office. By 1965, the firm had grown to around 15 employees, but as more competitors emerged, the other two founders were unsure of its long-term prospects. They sold the firm for $900,000 to Control Data Corporation (CDC), a Minneapolis-based computer manufacturer looking to enter the large New York market for computer services. Goldstein stayed with his first business for another two years, making the transition from entrepreneur to salaried manager at CDC. This was an opportunity to gain experience within a large firm. In retrospect, he also sees it as the beginning of a life-long interest in computer industry mergers and acquisitions, teaching him the responsibilities of both buyer and seller.

In January 1961, Goldstein was a last-minute speaker at the first ADAPSO Management Symposium, held in a small room in New York's Pennsylvania Hotel. While several planned speakers had been frustrated by a heavy snowstorm, Goldstein worked in the city and found the blizzard less of an obstacle. Seven of the infant association's 16 members made it to the meeting, and were joined by 12 guests. The early symposia were a major recruitment tool for the young association, and indeed Goldstein himself only joined after making his presentation there.

In his speech, Goldstein urged his fellow service bureau managers to move beyond simple processing jobs and "utilize the skills of the accountant, the consultant, the mathematician, and the statistician … at a higher level of professionalism than the client himself has available." He considered this particularly important for small, independent firms such as his own. These operated without subsidies from equipment manufacturers, and were constantly challenged to differentiate themselves from their competitors. As he put it, they must "recognize that skilled minds are a much 'hotter' commodity to sell than skilled machines."[2]

Recalling the meeting 25 years later, he said,

It was the first time we talked with each other in a formal context and, as might be expected, we were hesitant at first; reluctant to admit our failures; prone to exaggerate and embellish our most cherished dreams about our personal future and the future of our industry; sensitive about our many weaknesses. Whatever else we felt when we left that meeting, all of us knew, for sure, that the problems we thought were unique to our infant companies and divisions were far more universal than any of us anticipated … This realization, this commonality of interest is what has held us together.[3]

Goldstein was active in ADAPSO throughout the early- and mid-1960s. After running a committee in 1964 to host another Management Symposium in New York, he was elected as a director the following year. He then became ADAPSO's representative to the American Standards Association.

By 1967, when Goldstein left CDC, he was serving on the ADAPSO board as treasurer. His appointment as the staff director for admissions was announced in the January 1967 issue of the association's newsletter, an action endorsed by the board in February. The March edition featured him a picture of him with the slogan "Campaign USA (and Canada!)." For seven months he traveled the country as ADAPSO's ambassador, visiting 45 states and hundreds of companies. The results were apparent almost immediately. From February to June, the association saw a net gain of 56 members, swelling its ranks by about a quarter. By June 1968, when Goldstein completed his staff job and returned to the board, ADAPSO had almost 400 members. It had doubled in size in just two years.

Less obvious were the personal benefits from this membership drive for Goldstein, which went far beyond mere commission payments. His work as a full-time recruiter gave him unique knowledge of hundreds of service bureaus and their owners across the country. This laid the foundation for his next business

venture—the publicly traded United Data Centers (UDC).

The idea was to acquire formerly autonomous service bureaus—primarily in smaller cities such as Lexington, Wichita, and Syracuse—where existing national chains had yet to establish a presence. Goldstein himself calls this a process of "running away from richer and stronger competitors."[4] After acquisition, these centers operated much as before, but under the UDC brand. They enjoyed better access to financial and technical resources, including specialized applications it would be impractical for independent centers to create. Goldstein recalled the advantages of this approach as being

> a) reputation; b) insulation from competition and c) the economies of scale, building at that time what we perceived as reasonably expensive systems.

In the short-lived bull market for computer services stocks during the late 1960s, Goldstein was able to finance these acquisitions by issuing additional shares of UDC stock. Like Goldstein's own erstwhile partners, many of the founders of independent firms were eager to trade an uncertain future—and a present often plagued with cash flow problems—for a lump-sum payment or a large pile of publicly traded stock. The UDC model made full use of Goldstein's extensive personal networks, and built on his naturally optimistic nature as a booster for the future of the industry as a whole and for his own firms in particular.

Goldstein's own experiences as a teacher and student of the service bureau business exemplify the ability of ADAPSO to serve as a meeting ground for determined competitors. As he put it back at the inaugural symposium in 1961, "We, in this very young business, admit we haven't perfected the formula for our service opportunities." The association, he continued, would serve as a place to indirectly swap and compare their current experimental efforts. Many years later, as he looked back on his career, Goldstein recalled, "The first thing ADAPSO did … was [to become an] educational organization." Business schools, he insisted, were doing nothing to prepare students for this new industry. So,

> ADAPSO became its own university. Its meetings, which were held four … times a year, were enormous educational opportunities where we learned from each other, as to how to price, how to sell, what application specialties would exist in the marketplace, how to manage if you will …[5]

As ADAPSO grew and the industry matured, Goldstein maintained his faith in this communal spirit. In 1972, many ADAPSO members faced stiff competition for scarce business. But as the association's president, Goldstein made a remarkable plea to its members:

> I am sure that each one of us has at least one local competitor who, while not a member of ADAPSO, is a credit to the industry. Won't you take the time to mail him the attached membership application form. … A personal note from you (you see, he also has great respect for you as a competitor) will be a more effective solicitation of his participation than a dozen mailings from our Association offices.[6]

As a two-term ADAPSO president, from 1970 to 1972, he led the association through a difficult period as the computer industry experienced its first recession. The second of these terms was a particular vote of confidence, since immediately before reelecting him the outgoing board of directors had changed the bylaws to permit its leader to serve two consecutive terms.[7]

Hard times brought out the industry cheerleader in him, as he stressed the need for ADAPSO members to

> offset the negative public imagery created by the disproportionate number of new data processing service organizations which ran into financial difficulty … caused by premature public offerings of corporations led by inexperienced new entrants into the business.

This, he worried, was, "creating a capital squeeze for all computer service organizations regardless of their structure."[8] The title of an article he wrote in 1974, "The Future Looks Bright for the Computer Services Industry," shows his valiant efforts to fight the disdain with which most investors continued to view computer software and services companies.[9] Although the recession forced some cutbacks early in his term, disaster was averted and the foundations were laid for continued growth with the reorganization into interest sections, and the admittance of packaged software firms through merger with the Association of Independent Software Companies. Timesharing firms, which had joined earlier, were small in number but because of their larger sizes provided much-needed revenue for the association.

His concerns for the future of the industry as a whole made him one of the most vocal ADAPSO members in representing the associa-

tion's positions to Congress and to the public. In his 1971 inaugural speech, he noted that

> Above all, ADPASO has benefited by being an activist organization, an organization which has not hesitated to speak its mind on the important issues and events affecting the industry, our society, and finally our membership.[10]

During his term as President, he worked very closely with ADAPSO counsel Milton Wessel to raise the association's legal and political profile. It filed briefs in several cases, including state attempts to tax data processing services and in hearings before the FCC about the ability of telecommunications firms to offer computing services. Goldstein was personally involved in lobbying the House Banking and Currency Committee to restrict the entry of the Federal Home Loan Bank Board (FHLBB) into the data-processing services business.[11]. Goldstein remembers this advocacy as "an opportunity to get new members" for ADAPSO. He adds that his

> willingness and ability to speak out about these conditions enabled me to become a spokesman for ADAPSO, in which I subsequently served as president and board member and had a long-time involvement. On a selfish basis it gave me stature in the industry to continue to acquire companies and to build a recognized position in the marketplace.[12]

Later in the 1970s, Goldstein served as Vice President for Unfair Competition, responsible for all ADAPSO committees working on issues of bundling and competition from regulated or legally protected industries such as banks and accounting firms. Goldstein was the driving force behind the creation of ADAPSO's first Political Action Committee, formed in large part to support the candidacy of fellow ADAPSO stalwart Frank Lautenberg for the U.S. Senate in 1982. In 1986 he became the founding Chairman of the Board of Trustees of the ADAPSO Foundation, a new charity created to apply computer technology and donations from computer industry firms to assist the handicapped. During the 1980s Goldstein was also an active supporter of the creation of an "alternative dispute resolution" (arbitration) service for the computer services industry, as an alternative to lengthy and mutually destructive lawsuits. This was a personal interest of ADAPSO counsel Milton Wessel, and was finally realized after Wessel's death (though neither it nor the ADAPSO foundation ultimately survived).

In 1974 UDC merged with the large timesharing firm Tymshare. At this point, many traditional service bureaus were worried that they would be made obsolete by the transition to online operations, which most observers then expected to be much more general and rapid than it ultimately proved. Tymshare, according to Goldstein, saw the acquisition as a way of moving beyond the sale of general-purpose computer time by adapting the kind of commercial applications built by UDC for online use. He remained with Tymshare for around two years, specializing in the management of further acquisitions. Goldstein then left to become chairman of National CSS, another timesharing firm. This was another two-year span—the firm was acquired in 1979 by credit-reporting giant Dun & Bradstreet, which was in part an attempt to improve what Goldstein describes as its "internal sloppy data processing."[13]

Having tired of the day-to-day work of the business manager, Goldstein moved in a new direction with his next venture. He joined Broadview Associates, which at that point was a one-person consulting practice founded by Gil Mintz in 1973. Broadview specialized in an apparently narrow field: mergers and acquisitions in the computer industry. However, such was the pace of acquisitions in software and services firms during the 1980s that this proved an extremely successful business.

Goldstein himself became one of its key assets, with his long experience of buying out companies, and of being bought out himself. As Goldstein recalls it, his "reputation had grown as a dealmaker" and so his "presence on the side of the seller or the buyer added value." Even a small percentage could amount to an enormous fee, which Goldstein admitted was often "outrageous in terms of what people are willing to pay for advice and guidance." He added, though, that "so much money is generally passing hands that the seller or the buyer doesn't mind paying" this amount.[14]

Despite his love of quiet deal making and discreet negotiation, Goldstein was sometimes unafraid to court controversy on topics he felt deeply about. One of these occasions was the 25th ADAPSO Anniversary event in 1986. The first half of his speech followed the expected course of nostalgia, praise for the association's achievements, and friendly jokes. The second half, however, was addressed directly to John Akers, Chairman of IBM, who as keynote speaker had just become the first IBM chief to address the association. His presence was the product of a push by ADAPSO to work more cooperatively with IBM, stressing the symbiot-

ic nature of its hardware and their software, rather than IBM's sometimes aggressive behavior as a competing source of software.

Goldstein was outraged by IBM's perceived breach of this attempted truce, after it acquired exclusive distribution rights for a supplier of bank software called Hogan Systems. For Goldstein, this was tantamount to an acquisition, and signaled a new strategy where IBM would try to make itself into an exclusive distribution channel for independently produced software. This, he said, was "equivalent to giving a frontal lobotomy to a software company." He accused Akers of "peeing in [his] own soup" by threatening the vitality of the independent software industry, and demanded that he abandon the strategy in an act of "enlightened self interest." IBM's representatives did not take this well, and the ADAPSO board quickly issued a statement that Goldstein's comments did not reflect official policy. Goldstein, however, was unapologetic, and used Broadview Associates to publicly distribute the text of the speech.[15]

In 1996, Goldstein retired from the board of Broadview. By that time the staff size had increased to 350 people. The company reaped huge rewards during the technology boom years of the late-1990s, and despite the sharp technology downturn that followed it remained an independent firm, and one of the leading global players in its niche. It was successful in scaling up an advice business—based on the personal connections and experience of Goldstein and Mintz—into a high-volume operation. It used a model stressing turnover and promotion of staff, where ambitious undergraduate recruits are trained for short-term positions as analysts, assisting associates, vice-presidents, and principals with MBA degrees from top schools.

Goldstein's deep knowledge of the computer industry and its participants made him a natural member of many corporate boards, including those of SPSS, SunGard Data Systems, and the consulting firm ThruPoint. As an Apple board member, he served through the tumultuous period during which both CEO Michael Spindler and his successor Gil Amelio were ousted in quick succession, making way for the return of its cofounder Steve Jobs.

Goldstein remains an active member of several corporate boards and a trustee of nonprofit institutions, including the Charles Babbage Foundation.

Selected publication

H.L. Poppel and B. Goldstein, *Information*

Background of Bernie Goldstein

Education: University of Pennsylvania, Wharton School, BSc 1953; Columbia University, Graduate School of Business, MS, 1963. **Positions held:** Computech, executive vice president, 1958–1964; Control Data Corporation, New York district director, 1964–1966; United Data Centers, president, 1967–1974; Tymshare, senior vice president and director, 1974–1978; National CSS, chairman, 1978–1979; and Broadview International, managing director, 1979–1996. **Directorships**: Former: SPSS, SunGard Data Systems, Apple Computer, and Enterprise Systems; Current: SunGard Data Systems, COLLEGIS, ThruPoint, Allscripts Healthcare Solution, and In-Site One; Trusteeships: Stanford Institute for Quantitative Analysis of Society, University of Pennsylvania Library, and Charles Babbage Foundation.

Technology: The Trillion Dollar Opportunity, McGraw-Hill, 1987.

References and notes

1. This information, and much of the other material in this biography, is taken from B. Goldstein, "Oral History Interview by David Allison, 03 May, Washington DC," *OH 336*, Charles Babbage Inst., Univ. of Minnesota, Minneapolis, 2002. This will be cited only when a direct quotation is being made, and is known hereafter as *CBI OH 336*.

2. B. Goldstein, "Service Opportunities for Service Centers," *Proc. First Management Symp.*, *ADAPSO Records (CBI 172)*, Charles Babbage Inst., Univ. of Minnesota, Minneapolis, 1961, pp. 16-17.

3. B. Goldstein, "ADAPSO 25th Anniversary Speech," *ADAPSO Records (CBI 172)*, Charles Babbage Inst., Univ. of Minnesota, Minneapolis, 1986, p. 3.

4. This precise phrase is taken from a personal communication with Goldstein, though he makes a similar point in *CBI OH 336*, p. 9.

5. *CBI, OH 336*, p. 12.

6. B. Goldstein, "President's Message," *ADAPSO Newsletter (CBI 172)*, vol. 2, no. 1, Jan. 1972, pp. 8-9.

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9. B. Goldstein, "Future Looks Bright for Computer Service Industry," *ADAPSO Newsletter (CBI 172)*, vol. 4, no. 1, Jan./Feb. 1974, p. 4.

10. Anonymous, "Annual Report," ibid., vol. 1, Oct. 1971, pp. 1-3.

11. Anonymous, "Federal Home Loan Bank Board," ibid., vol. 5, Sept./Oct. 1974, p. 5. This reports "a marked degree of success" over meeting with Congressman Wright Patman about the FHLBB issue.

12. *CBI OH 336*, p. 12.
13. *CBI OH 336*, p. 16.
14. *CBI OH 336*, p. 17.
15. B. Goldstein, "ADAPSO 25th Anniversary Speech," 1986, *ADAPSO Records (CBI 172)*, Charles Babbage Inst., Univ. of Minnesota, Minneapolis, pp. 6-7. The resulting controversy spread beyond ADAPSO itself, and was reported on in D.R. Brousell, "The Domino Theory," *Datamation*, vol. 32, 1 Dec. 1986, pp. 20-21.

—Thomas Haigh

Biography

Frank Lautenberg

Frank Lautenberg's background was different from the technical experience as a programmer or data processing manager held by most founders of software product and time-sharing firms. Indeed, he never learned much about computers. Lautenberg's firm, Automatic Data Processing, was never a general-purpose service bureau. Instead, it offered particular business services, initially payroll processing, and eventually began to use computer technology as a way to process this work more efficiently and benefit from economies of scale.

Lautenberg's story of his own life, polished to a fine sheen during his political campaigns, is that of the striving working class entrepreneur who never forgot where he came from. His own Web site unashamedly billed this as a "Classic American Tale." Born in 1924, Lautenberg grew up in Patterson, New Jersey, then a major center of silk production. His immigrant father, grandfather, and uncle all worked in this industry, and died early of diseases he believes were triggered by their working conditions.

After graduation from high school, Lautenberg seemed headed for a similar life of manual work in the neighborhood. He was diverted from this path through wartime enlistment in the Army Signal Corps—or more precisely, the government-funded college education that followed courtesy of the GI Bill. After graduating from Columbia, Lautenberg was working as a sales-management trainee for the Prudential Insurance company when he reestablished contact with Henry Taub, a neighborhood acquaintance.

Taub, a young accountant, was running a tiny and struggling business called Automatic Payrolls. Founded in 1949, its partners collected mountains of time sheets from their clients every week, and prepared the pay slips and checks together with whatever summary reports were needed. Each employee account brought in a fee of 25 cents for each weekly pay period, and processing was largely manual, which meant that their business model hinged on hard work, low margins, and long hours. The firm's only other edge over potential competitors was the ability of Joe Taub, Henry's younger brother, to read a time card at a glance.[1]

Lautenberg began selling payroll service alongside insurance policies. This went well enough that in 1954 he went to work full-time for Automatic Payrolls as a third partner and its fifth employee. His sales skills and energy brought in enough new business to expand the company, but it remained arduous and repetitive work. Their only mechanical aid came from bookkeeping machines and Comptometer adding machines, both widely used since the 1910s.

Lautenberg recalls that he "used to sell during the daytime and then come in at night and do the payroll," often returning home well after midnight and rarely taking weekends off.[2] In 1957, however, the firm installed its first tabulating machines. At the same time, it changed its name to Automatic Tabulating Service, to capitalize on this technological edge. At this point the market for punched card machines was still growing rapidly, particularly in smaller businesses, despite increasing widespread use of computers among the largest firms.

With the electromechanical processing of punched cards came the separation of the data-entry task of punching employee information onto cards, handled mostly by young mothers working part time. The mathematical, reporting, and printing tasks that had formerly been inseparable from this work were now handled by tabulating equipment and a new kind of employee: the tabulating machine operator. Lautenberg, like the other partners, never got particularly involved with the machines, although he did appreciate the need to keep his "temperamental tabulating managers" happy and productive. As he recounts, "we almost shackled them to the machines because we couldn't afford to be without them."[3]

The next big technological step for Automatic Tabulating Service came in 1961. Its IBM account representative—traditionally a man who knew more about the working of a firm's tabulating department than any of its