

Gordon Moore

Born January 3, 1929, San Francisco, Calif.; with Robert Noyce, developer of the semiconductor chip; cofounder and chairman, Intel Corporation.



Education: BS, chemistry, 1950; PhD, chemistry and physics, California Institute of Technology, 1954.

Professional Experience: technical staff, Applied Physics Laboratory, Johns Hopkins University, 1953-1956; staff member, Shockley Semiconductor Laboratory, 1956-1957; Fairchild Semiconductor Incorporated: founder, director of engineering, 1957-1959, director of research and development, 1959-1968; Intel Corporation: founder, executive vice president, 1968-1975, president and chief executive officer, 1975-1987, chairman of the board, 1987-present.

Honors and Awards: fellow, IEEE, 1968;¹ member, National Academy of Engineering, 1976; AMPS Harry Goode Award, 1978; W.W. MacDowell Award, IEEE Computer Society, 1978; IEEE Frederick Philips Award, 1979; IEEE Computer Society Pioneer Medal, 1984; Medal for the Advancement of Research, American Society of Metals, 1985; Founders Award, National Academy of Engineering, 1988; National Medal of Technology, US Department of Commerce, 1990.

Moore developed his research interest in extending the capabilities of transistors while at Johns Hopkins University, and extended that by working closely with Robert Noyce after they departed Shockley Semiconductor Laboratory to found Fairchild Semiconductor Incorporated. This was a period when Moore was able to implement the concepts and ideas of Noyce to create “wireless clusters” of transistors which formed the basic idea of the “chip.” They applied for a patent contemporaneously with Texas Instruments, and were able to convince the court to find in their favor.² The biggest boost to the chip and to Fairchild was the announcement in 1964 by IBM of System/360. In 1968 Noyce and Moore left Fairchild to found Intel Corporation and to manufacture memory and processor chips, and thereby created “Silicon Valley-”

QUOTATION

Moore's Law (1965 prediction): “The number of transistors on a chip seems to double every year.”

BIBLIOGRAPHY

¹For contributions and leadership in research, development, and production of silicon transistors, and monolithic integrated circuits.”

²See the biography of Jack St. Clair Kilby.

Biographical

Bylinsky, Gene, *The Innovative Millionaires*, Charles Scribner's, New York, 1976.

UPDATES