

South Dakotans and the G.I. Bill of Rights: Harold Hall

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Harold Hall, formerly of Parker, and now of Fulton, knew he had to change his major. The future was not with draft horses, yet animal husbandry of draft horses was part of his first course at South Dakota State College in the fall of 1942. Since draft horses proved the undoing of his sharecropping father, Hall hardly thought they had a place in the future. But if draft horses were not part of his future, what was? Physics.

During the same semester he took a physics class from Professor Raymond Reinhart. That class changed his life. Professor Reinhart encouraged him to apply for an Army program to train meteorologists for military service. Hall applied, was accepted into the program, and was on his way into the Army to serve for three years. First he went to the University of Oregon for a year of pre-meteorology technical courses and then to radar training. Discharged in February of 1946, Hall returned to farm for two seasons and then to South Dakota State courtesy of the GI Bill. Hall made great use of the GI Bill and earned three degrees, including a Ph.D. in physics from the University of Wisconsin, paid for by Uncle Sam.

Like Forrest Gump, who always seemed to be at the center of major cultural change, Hall was at the heart of some of the most significant technological applications. He worked with Dr. Edward Teller on hydrogen bomb design at the University of California's Lawrence Livermore Lab and then spent many years with Lockheed and Ford aerospace building missile delivery systems for the H-bomb. He concluded his career at Xerox. Initially he was manager of the systems science lab at Xerox PARC- Palo Alto Research Center in California. Hall was part of the senior management team charged with bringing the personal computer and Ethernet, now called the Internet, to the point of commercial application. He later spent 14 years as a vice president for Xerox.

From plying the South Dakota sod with draft horses, to meteorology, radar school, the hydrogen bomb, aerospace, high tech weaponry, personal computers, and the Internet, Hall has led a varied life. God may have given Hall his brains, but Uncle Sam provided the education. Hall himself said that without the GI Bill he would have completed his education with his master's degree and gone on to teach at a church-related college. Maybe we would have hired him at Wesleyan.

Hall is an example of perhaps the most unintended consequence of the GI Bill. Three times as many GIs went to college as was estimated at the time. Imperceptibly at the time, American society in the late '40s and early '50s was moving from an industrial society to what some have called the post-industrial, post-capitalist, information technology society. In fact, 1956, four years after Hall received his Ph.D. in physics, is the first year in American society that white-collar jobs exceeded industrial and agricultural jobs combined. The unintended impact of the GI Bill was to produce the most highly educated work force in the world at exactly the time when an educated work force was necessary for economic expansion and technological innovation.

Is this not a chicken or the egg question? Was it the educational work force that led us into the information age, or was it outside forces unrelated to this educational work force that brought about the seismic economic and social change?

Peter Drucker, for one, thinks it was the GI Bill of Rights itself that signaled the shift from an industrial to a knowledge society. Whichever was the chicken and whichever was the egg, an educated work force more easily exploits, expands, innovates and creates new technological applications. Alumni of the GI Bill of Rights created and developed the new technology that is so much a part of our lives today.

For Dr. Harold Hall, it's a long way from draft horses and animal husbandry to the hydrogen bomb and the Internet. He enjoyed the ride; the GI Bill was the vehicle.