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Autobiography of a Career

This is an autobiographical account of the forces, influences, and experiences that have helped to shape my career. It is by its nature biased, since it is a look back upon these factors from 85 years experience of them, and the perception of their influence as seen from this point in time. This is not an autobiography, as such. This is concerned only with the factors that I feel have influenced my career. A tremendous amount of detail has been omitted that would have been included in a complete autobiography. Many of these experiences might be interesting, especially to members of the family. What are included here are those influences which have, from my point of view, shaped, developed, or supported my career development.

Over all, it has been a happy life, in spite of some hardships which have occurred. Many opportunities have been presented, and decisions have had to be made which have been fortunate and happy ones.

So, we start at the beginning.

The Early Years (1904-1910)

I was born in Norfolk, Nebraska on December 29, 1904. My father was employed by a large wholesale hardware company with headquarters in Chicago. Father had been selected to open up a large new territory in Nebraska, and my folks had moved to Norfolk from Illinois. They had lived in Nebraska about a year when I was born. I was a 12 pound baby and Mother (and I) barely survived. My parents had become well accepted in the community, and were active in the church and other social groups. When I was five months of age, in his travels Father contracted typhoid fever, which was fatal. After the shock Mother returned to Marengo, Illinois, to live with her mother, my grandmother. Also, in the family was my uncle, Frank, and my aunt, Ella.

My grandmother and grandfather had separated, so the family had to struggle economically. Mother, a high school graduate with an excellent academic record, was certified to teach in a one-room country school, ten miles away by horse and buggy. She stood these rigors for a year, while my uncle worked after high school in a grocery store. Grandma took care of me, and I was loved and given security.

Next, my mother obtained a position with the YWCA in Elgin, Illinois. My uncle got a job as a bookkeeper with a utility company in Dundee, Illinois. We moved to Dundee, with my mother commuting daily to her Elgin job. Grandmother took care of me, and gave me security and affection. In the meanwhile my aunt Ella had married and moved to Rockford, Illinois.

Uncle Frank acted very much as a father figure. He and Mother were active in the church. He sang in the choir and she taught Sunday school classes for young women. Many social affairs of young people were held in the home. Obviously I was always included, usually receiving much attention. Uncle Frank enjoyed photography and I watched him develop prints, and was usually around when he made things in his wood shop. During this period I also attended kindergarten.

My grandmother was a strict disciplinarian, but I generally regard this period as being a happy one, with lots of love and attention.

Grade School Years (1910-1917)

In 1910, my mother took a position as cafeteria director at the YWCA in Aurora, Illinois. Uncle Frank obtained a transfer to the utility company office in Aurora, and we moved there. I started grade school at a school about 6 blocks from home. Here I continued through the fifth grade. I remember two especially fine teachers that I admired very much and who stimulated my learning and academic achievement. My school work was also very much supported at home. I had wood shop in fourth and fifth grades and turned out several pieces of which I was very proud. Also Uncle Frank had a good size garden, and I had a part of it as my own. I received much praise and support. This was a happy period of my life, and as a child I had developed an academic pattern of excellence.

In the spring of 1914 my uncle rented a 7 acre farm at the edge of Aurora, Illinois. The lease was for two years. The farm had 4 acres of asparagus and one half acre of strawberries. Besides the farm house there was a barn, stalls for several horses, and a large hen house. My uncle thought the farm would be an opportunity to make more money to supplement his regular job at the utility company.

These two years could have been very stressful for me, but as I look back they don't seem to be. Uncle Frank and Grandma had underestimated the amount of work involved. Both were workaholics and worked very hard these two years. During the growing season asparagus pickers arrived at 4 am. Grandma supervised the bunching and crating, and Uncle Frank delivered the asparagus, by horse and wagon, to several stores downtown (2 miles away) before reporting to work at 9 o'clock at the utility office. When the strawberries were ripe, Grandma directed the children who did the picking, and Uncle Frank delivered the berries before going to work. Besides, there was a large garden from which Grandma canned many vegetables. Uncle Frank raised several varieties of fancy chickens, all show stock, which he sold to customers throughout the U.S. at good prices.

For myself, I was very busy. I had a small farm wagon that I loaded with vegetables and strawberries and peddled these to houses on nearby city streets. I did quite well, had regular customers, and made quite a lot of spending money. I had a big collie dog to which I was devoted. Uncle Frank made shafts and a harness for him so I could hitch him to the farm wagon for errands around the farm. So, while learning to do my share of work, I also had some fun doing it.

At the termination of the lease, we moved to a 1 acre place with a better house, a barn, a nice yard, a big garden, and lots of flowers. We had a fine driving horse, named Captain, of which I was very fond. I worked in the garden, mowed the large lawn, and helped Uncle Frank with his flowers. He also raised fancy pigeons, which I helped tend.

During this period Mother started her own cafeteria in Aurora. She worked very hard to make it a success, even though she had little money to put into it. I joined the Boy Scouts, and had a

wonderful Scoutmaster, who was an excellent role model. World War I started and the Scoutmaster joined the Army as a Captain. As a scout I had a victory garden, located in a plot of land completely covered with quack grass. I planted navy beans, and by the end of the summer, with hard work, I completely eradicated the quack grass. This was quite an achievement.

It was during these years that I took violin lessons, and developed fairly good skill. I had several recitals. Later, when I moved to Minneapolis with my mother, I had to give up violin lessons and I have never played since.

High School Years (1917-1921)

Because of the War and its demands, Mother was unable to continue with her cafeteria. She obtained a position as Director of Shevlin Hall, a women's building at the University of Minnesota. This building consisted of a dining room, lounges, and conference rooms, but no dormitory. She took me with her and I entered the ninth grade of the University High School of the School of Education. I had had one month of eighth grade at Aurora and was placed in the ninth grade in high school. I had to make up one month's work in a school where the competition was intense. I was able to do it only because of several very outstanding teachers. The teacher of history had a Ph.D. and has since received very prestigious awards for teaching. My General Science teacher in later years became Provost of the University of Chicago. I was lucky. I studied very hard and completed the years successfully.

Near the end of the summer, Mother married a man from St. Louis, a widower with a son who was 1 1/2 years younger than I was. We moved to Webster Groves, Missouri, a suburb of St. Louis. There, I finished high school in 1921. It was a very good school, excellent teachers, and I did above average academically, but not superior. I was actually one year younger than most of those in the graduating class. I did not take part in athletics or other school activities, but had a minor part in the senior play and sang in the chorus.

During these years two other experiences should be mentioned. One winter I kept two horses for two women owners. A barn was available on the property we were renting. The owners provided the feed; I exercised the horses and maintained them. One horse was owned by a woman who spent the winter in Florida. The other one, a Kentucky Walker, was owned by one of my teachers in high school. He was a joy to ride.

The other experience was to learn to drive a car for an elder Scotchman who lived next door. This man's daughter had remarried and left home, leaving the old man with the car, but too old to drive. I taught myself to drive by backing the car in and out of the garage, and driving short distances from home. I met him at the railroad commuter station each evening and "chauffeured" him when he needed it. As I remember it, I didn't bother to have a driver's license, if one was required.

Post High School Years (1921-1923)

Near the end of my senior year my step-father lost his job in a company merger. My mother received an offer of a position as Director of Sanford Hall, a large girls dormitory at the

University of Minnesota. My mother accepted the appointment, and since my step-father was finding job placement difficult, they moved to Minneapolis. I went to live with my uncle and grandmother in Batavia, Illinois. My uncle had bought an 18 acre farm and home and needed my help. The place had five acres of woods, garden, and homestead, leaving 13 acres of rich Illinois farm land for cultivation. He had a fine team of horses and two dairy cows to milk. Besides he raised fancy pigeons and prize winning Bantam chickens for sale. However, he still kept his full-time job with the utility company. So, what was to be a temporary stay for me, I was needed to help on the farm. This I did for the first year, milking the cows, tending the pet stock, and farming the thirteen acres (as best I could) without experience.

Mother was concerned about my need for further education, so in the Fall of 1923 I registered at Aurora College for three courses, which I could take in the morning. By leaving the farm at 7:30 a.m. on the interurban, and catching the streetcar in Aurora, I could attend my first course at the college at 9:00 a.m. The third course was finished by 12:00 o'clock, when I would reverse the streetcar, interurban connections, reaching the farm by 1:00 p.m. for lunch and work on the farm in the afternoon. I studied as best I could evenings, but finished the year with A grades in the subjects I took. The credits were considered equal to two thirds of a normal program.

During this year I met Jennie, a sophomore who later became my wife. She had come from the State of Washington on a tuition scholarship, but had to work for all her other expenses. This romance developed during the year. Uncle Frank had purchased a second-hand car, which I overhauled and painted, and this made it possible to attend social activities, church, and sing in the choir at the college. It was a busy but very important year. I now wonder how I was able to maintain my schedule!

University of Minnesota Years (1924-1927)

Mother established a home in Minneapolis for my step father and stepbrother and was anxious to have me join them and continue at the University of Minnesota. So, in the fall of 1924 Jennie and I registered at the University. I lived at home and Jennie lived at the dorm, earning her way by part-time clerical work in the office and other miscellaneous jobs in the dormitory. We all enjoyed attending and participating in social activities at the University Baptist Church. I also worked at the YMCA desk twenty hours a week and was on the cabinet during my senior year.

The student YMCA meant a great deal to me during the three years of study at the University. I had many contacts, and worked closely, with two YMCA secretaries: Cy Barnum and Ray Cunningham. Both were good counselors and both contributed to my growing philosophy of life and emotional stability. As a member of the Senior Cabinet I conducted a study that helped to outline the Y's future programs of the student YMCA on the campus. I had a very unusual experience as a member of the cabinet. I became acquainted and worked with Roy Wilkins, another member of the cabinet, who was a law student at the University. This was the first Negro I had come to know. It was a great experience and one I shall always be proud. This man later established the NAACP, and has become very famous nationally.

My courses at the University were largely in the social studies. I was fortunate to have some very superior teachers. In Psychology, my section heads were outstanding graduate students who achieved fame in the field in later years. In Sociology I also was favored with highly regarded

teachers. Because of entering with less than a year's credits, I had to take gym and ROTC for two years! By taking courses during two summers, I was able to graduate with Jennie in June of 1927.

Some other valuable experiences came from summer work with the Northrup, King, and Co. seed house as a summer salesman. When I turned 21, I was appointed as one of 45 summer sales representatives. Each man was assigned a definite sales area where they were to call on dealers, check the seeds sold, collect the amounts due, ship back the unsold packets, and book the dealer for the following year. A car was furnished and all expenses paid. So, at \$75 a month it was possible to save most of the earnings. The first summer, with no previous experience, I ranked fifth out of 45 summer salesmen in the sales contest! The second summer I was assigned the same territory in Southeast Missouri. It had been worked so well the previous summer that I was only able to rank twelfth out of 120 summer salesmen. The third summer will be mentioned later. These summer experiences were very maturing for me, gave me confidence, and showed I could compete successfully with somewhat older, more experienced men.

George Williams College and University of Chicago Years (1927-1931)

as to the future. I was definitely interested in working with people, but the next steps were uncertain. I had no money to support future plans even if I had any. Because of my activities in the student YMCA, the secretaries felt I was a promising candidate for a future Y secretary, or group social worker. I was presented with a tuition, free scholarship to George Williams College in Chicago. This was a national training school for the secretaryship or social work. In addition, living expenses at the College could be earned as a teaching assistant. So, I accepted the offer and in the Fall I entered the College in Chicago.

Jennie and I planned to be married in June of 1928. In the meanwhile, she obtained a teaching job in a school in the Iron Range (Northern Minnesota).

My year at George Williams College was a very important one for my development. I had courses in group leadership, social service administration, and religious education. I was assigned to Dr. Hedley Dimock as a teaching assistant. I took all the courses he taught, and corrected his papers and performed other duties. But most important, as a fairly mature graduate student he included me in some of his professional/social contacts with Roy Sorenson, of the National YMCA, and Charles E. Hendry, with whom Dr. Dimock was writing a book entitled Camping and Character. All of these men were challenging thinkers, and new areas in my own thinking were opened up. Thus far my philosophy of life had been formed mainly by accepting the traditional beliefs and customs as they were. Now new challenges were presented based on broader knowledge and understandings. It was exciting, yet disturbing to me at times, but I had the support and counsel of these men who helped me reshape my philosophy of life.

At the end of the academic year, I returned to Minneapolis and Jennie and I were married in the University Baptist Church. It was a formal ceremony with many of our college friends participating. After a week's honeymoon on Lake Minnetona, I attended a week's sales conference. Then Jennie and I took the train to Spokane, Washington, where I started my territory for Northrup, King and Co. seed house. After a week of my work around the Spokane

area, Jennie continued to her home near Nooksack, Washington. After a very interesting and successful summer, I joined her in September. We returned to Minneapolis, and on to Chicago.

During the first year (1927-1928), all my courses were taken at George Williams. These fulfilled my residence requirements. In addition many of my Minnesota courses filled other credit requirements. I also found that I was eligible for free tuition in the Divinity School of the University of Chicago in Religious Education. These courses would lead to a Masters Degree and credits also could be transferred to George Williams College toward its degree in social service administration. Since I was reshaping my philosophy of life, and still had uncertainty regarding the direction of my career, I thought the courses at the University of Chicago would provide useful knowledge and understanding. This proved to be true. Instruction was excellent. One course by Dr. Goodspeed, who was noted for his modern translation of the Bible, was a real privilege. Other courses dealing with techniques of learning and instruction were basic to any work with people. I ended the year having completed all the residence course requirements for the Masters Degree, but needed a thesis.

I received my B.A.S. degree (Bachelor of Association Science) from George Williams College in June 1929.

Two summer experiences were extremely important to me. The first summer (1929), after my year at George Williams, I accepted a position of Personnel Director of Camp Hayo-Went-Ha, a boys camp in Northern Michigan. Here I had a chance to try out some of the techniques in group leadership and camping I had learned from Dr. Dimock at George Williams. While I was in camp, Jennie obtained a job in charge of the store at College Camp, Wisconsin, a national camp facility owned by George Williams for YMCA Secretaries and their families.

The second summer (1930), after my year at the University of Chicago, I was appointed as the Director of a new YMCA camp for boys, on a beautiful lake in Northern Michigan. This was a brand new camp. Only the office, dining room, and kitchen were housed in the lodge. All the boys lived in tents, each group with a leader. There was a medical tent, and a new county health nurse came to the camp each two week period. The terrain around the lake was somewhat hilly and rocky. All the leaders were college men, carefully selected, but without previous camp experience. The Physical Director, in charge of the waterfront and other physical activities, had been trained at George Williams College. His wife was bookkeeper, and along with the cook were full-time employees. The camp had room for 100 boys, each two-week period. So, during the summer we had a total of 400 boys.

This summer proved to be a real challenge! The 21 leaders arrived a week early. This time was used for training sessions each half-day in the hay mow in the old barn. The rest of the time was spent in setting up tents, bunks, and planning activities. Somehow we got through the two months, with homesickness, physical complaints, fights, etc. bugging us constantly. For me it was a real developmental experience in administration that I will never forget. While I was in camp, Jennie spent the summer with my grandmother in Batavia, Illinois.

In September 1930, I obtained a job with the YMCA of Chicago. My major responsibility involved a study of the activities of Young Men in the various branches of the YMCA of

Chicago. This study proved to be quite extensive, and I was able to coordinate it with my advisor at the University of Chicago. The evaluation of the results were used as a thesis for my Masters Degree. This I did, and received my degree in June 1931.

During this year we lived in Nuperville, Illinois, in a fully furnished rented house. I commuted every day by suburban train to Chicago. Our first child was born on October 7, 1930. Due to an infection, Jennie was in the hospital for 28 days. Even in those days, these expenses were more than my income and I received some financial aid from my mother.

Move to Iowa (1931-1937)

During the summer of 1931, a position opened up at the University of Iowa as Secretary of the Student YMCA on the campus. I was recommended for this position because of my experiences in the Student YMCA in Minnesota, as well as my past training. I accepted the offer, though the salary was small, as I needed a job. It was at the beginning of the depression and the budget was very limited. I found that as the year progressed, I was not happy with what the job involved. The job held no future for me and I was not enjoying that kind of work.

I heard about research assistantships that might be available at the Iowa Child Welfare Research Station at the University of Iowa. When I went to inquire about them in the spring, I was referred to Dr. Harold Skeels. He had just finished his Ph.D. and his assistantship was being vacated. I talked with him about his work and he was very enthusiastic about the research that was being done at the Station, and his own future work with the children's institutions in Iowa. All of this made me very interested and I applied for his assistantship. He apparently was interested in me, and supported my application. I was appointed to start in the fall, 1932.

My years at Iowa were very rewarding. I worked half-time on my assistantship and was able to take two-thirds of a schedule of courses. Dr. George Stoddard, Director of the Station, was my advisor. I had several courses with Drs. Lewin, Wellman, Lindquist, Travis, and Wendell Johnson. I had experience of working closely for Drs. Wellman, Stoddard, Skeels, and Skodak in their studies of mental development - known in the literature as the "Iowa Studies." Some of my research assistant time was spent with Dr. Skeels in testing children in the Iowa institutions. I had the opportunity to associate with some other outstanding graduate students. These were challenging and exciting years!

Supporting a wife and youngster on a research assistant stipend was always a constant problem. During 1934-1935 I obtained a leave-of-absence to become Principal of the State School for Dependent Children at Toledo, Iowa. Here I was given a great deal of freedom by the Superintendent. The school was in need of considerable improvement. I was able to hire a good music director who developed several choruses and established a band. Instruments had to be bought and children taught to play them. By the end of the year some "concerts" were scheduled. The physical director who had been a track star in college developed a football team which played several teams in the county. He supervised children in building a track with cinders from the power house. In the spring, the institution hosted a county track meet. He also had a personal friendship with Jesse Owens, and we were proud to have him demonstrate his broad jumping ability at the track meet. All together, with 10 teachers to supervise, the year was very successful. It provided me with considerable administrative experience. After the school year I varnished

window frames all summer in the local public school to earn more money so our small family could return to the University to continue my studies in the fall.

The final year at the University was a busy one. My courses with Dr. Lewin, and his initial research in group dynamics, provided an opportunity to get in on his early formulations which he later developed at Harvard and M.I.T. Dr. Lindquist's courses introduced me to advanced statistics, as developed up to that point. My courses in basic psychology were excellent, especially those taught by Drs. Lee Travis and Wendell Johnson. Close contacts with Dr. Beth Wellman and Harold Skeels kept me up-to-date on all phases of the controversy on mental development and the Iowa Studies that was raging in the 1930's-1940's. Dr. Stoddard provided wise counsel when needed, and approved credit for reviews of literature in various areas of psychology. No courses were available in Industrial Psychology at Iowa, or, as a matter of fact, anywhere else, at that time, so I had no academic background in this field. During the year I was collecting data from the institutions for my dissertation entitled: "Mental Development in Relation to Institutional Residence and Academic Achievement." This thesis was approved by Dr. Stoddard and became a monograph of one of the Iowa Studies in Mental Development. I received my Ph.D. in August, 1936.

While we lived in Iowa my mother was Director of the Law Commons. She obtained this position to be close to us, and loaned us money from her salary so we could make ends meet during that last year.

When I finished my degree, jobs were very scarce. Ph.D. graduates were accepting college teaching jobs paying only \$1800 for 10 months. I obtained two half-time jobs, each paying \$1500. One was with a professor in the School of Education who had a grant from the Carnegie Foundation for research in teaching. The other was as Director, Mental Health Traveling Clinic, Federal State Childrens Program, State of Iowa. This job meant traveling to all parts of the state, giving consultative service to social workers and county judges regarding planning for children and families who had become wards of the state. After a short time it became apparent that this was a full-time job. Money became available to make it so. The other job, very ill-defined from the beginning, was dropped, so I continued fulltime on the state traveling job at \$3000 a year.

During this period we lived in the Methodist Student Center in Iowa City. Jennie was the counselor and house mother. Several students roomed in the house and helped with maintenance and activities. Our second child, Ruth, was born November 11th, 1936.

Move to Flint, Michigan (1937-present)

Constant traveling left little time for family life. In 1937 two job opportunities were presented to me. One was in Des Moines, Iowa, when the Director of a community guidance clinic, Dr. Newal Kephart, was leaving to join the Navy as an officer. He had been a graduate student with me at the University. The other opening was a position as Director of the Child Guidance Center of Flint. Both openings were equally desirable. However the Flint position had a number of advantages, both then and in the future. The needs of the community were great. Flint had just experienced the noted sit-down strike. The Child Guidance Center had been reduced to a director, a secretary, and a remedial teacher. The power figures in the community were very

supportive. There was a possibility that a grant of money might be available for guidance in Flint from the Rackham Foundation, which had given large sums to the University of Michigan. So, with these and other considerations I made a decision to go to Flint. This was a very important decision in my career. After a vacation trip to visit Jennie's relatives in the State of Washington, our family arrived in Flint in August 1937.

The first year was spent in building up the community image of the Child Guidance Center. A strong Board of Directors was established consisting of some of the "power figures" in Flint--the Chairman, an Executive Vice-President of one of the largest banks in Flint, a man devoted to community service; the Chief Engineer of Buick; the Superintendent of Schools; the Managing Editor of the Flint Journal; the District Manager of the Utility company; a retired manufacturing executive; and the Manufacturing Manager of the AC Spark Plug Division of General Motors. This Board was very supportive and helpful. A social worker was added to the staff. Services were increased to the schools, to many other agencies, and individual families. During the first year the Director made 51 talks to child study groups, PTA's, service clubs, church groups, etc. so that the Center's values to the community were better understood.

In the second year a grant from the Rackham Foundation changed the program of the Child Guidance Center immensely. This grant of \$500,000 was made through the Institute for Human Adjustment of the University of Michigan, with the income from the grant to be used by the child Guidance Center in Flint for a research program in guidance in the schools. I was made Director of both programs so that one half of my salary came from the budget of the local Child Guidance Center and half from the University of Michigan. The immediate needs called for recruiting a staff and a research design for the program.

The most important staff member would be someone who would assist in the administration of both programs and in developing the research design of the Rackham program. I thought immediately of Marie Skodak, with whom I had worked at the University of Iowa, who for a year had been Assistant Psychologist for the State of Iowa under Dr. Harold Skeels, and who was just finishing her Ph.D. Her background and ability appeared to be just what was needed for the job. Fortunately she accepted the offer and was made Assistant Director in August 1938.

Working closely with the schools and the Institute of Human Adjustment of the University of Michigan the outlines of the research project were gradually shaped up. The main objectives of the project were to determine the values of providing full-time counseling and guidance to a group of students in high school in Flint Public Schools. More specifically, what criteria during and after high school can be found which distinguish between those students who had full-time counselors available and those who had the usual schedule of part-time course advisors.

The program consisted of setting up two equal experimental and control groups. This was done by taking an entire ninth grade in the junior high school as subjects. The ninth graders were distributed in the school in a number of equal sized home rooms. The study took alternate home rooms to make up the experimental and control groups. Each group was equal in size (225 students) and in every other measurement that could be determined. Both groups were given a series of ability, interest, and personality tests periodically throughout the course of the research. On these measures no group differences were found on the preliminary tests. The only difference

in treatment between the groups was the provision of full-time counselors for the students in the experimental group.

The full-time counselors consisted of two carefully selected teachers from the public schools: Vivien Ingram and Virginia Barber. Vivien Ingram, especially, had considerable background in teaching, testing, counseling, and volunteer social work. In addition Douglas Blocksma, with training in guidance and counseling, rounded out the full-time counselors. The students in the experimental group were contacted frequently and received guidance in the choice of courses, career planning, and personal and emotional problems. Considerable vocational information was made available, parent PTA meetings were held, regular professional clinical sessions were scheduled on individual student problems, and all the activities presented an enriched guidance experience for the students in the experimental group. The program was continued during the four years of high school. Any students in the experimental group were given counseling if they were considering school drop-out. All drop-outs in both groups were followed up to determine what they were doing after they left school.

During the program, information was constantly being collected on both groups in attendance, grades, course changes, drop-outs, school problems, participation in school activities, awards, part-time jobs, changes in repeated test results, personality changes, enlistments in the military service, significant personal experiences, and any other pertinent data.

The students graduated from high school in 1941 into a world at war. While the U.S. had not yet entered the war, Flint was deeply involved with huge war preparation contracts. Excitement gripped the community, the schools, and all the industrial plants. The graduates were caught up with the prevailing spirit. Jobs were opening up in industry and the draft and recruitment for the armed services were bringing job opportunities to the students. Career changes were occurring. Difficulties in following up the students in both groups were obvious.

The evaluation of the project was difficult under these conditions. It is not my purpose here to give a detailed evaluation of results. It is sufficient to say that significant differences were found on practically all the criteria in favor of the experimental group. Reports were written and presented to the schools and the Institute of Human Development of the University of Michigan. Because of conditions in the schools at that time, especially economic problems, the findings of the study were never implemented into changes in the guidance practices, then or in later years. Ten years later, a follow up study made as a basis for a Ph.D. thesis at the University, further confirmed the lasting results.

One of the professional member's of the staff, Harland N. Cisney, used data from the repeated administration of the Strong Vocational Interest Test, used during the study, for an analysis resulting in a dissertation for his Ph.D. This man worked with me at AC Spark Plug Division, and many years later retired as Personnel Director of Johnson Wax Co. of Racine, Wisconsin.

During these years, important things were happening to me and members of the staff. In 1938 our son, Forrest, was born in Flint. In 1939-40, I was elected President of the Council of Social Agencies. In 1940-41 requests for services from the Child Guidance Center were requested by Mr. Joe Anderson, Manufacturing Manager of the AC Spark Plug Division, GMC. He was a

member of our Board, and very much interested in any help our staff could offer to AC in selecting and placing people who had no previous experience in industry on the new jobs that were becoming available. Citizens from all walks of life were applying for jobs, many with only the desire to assist in the war preparation effort.

Applications of psychology in industry were new to me. When I was in graduate school no courses existed in Industrial Psychology, so I lacked any academic background in the field. I felt however, basic psychological techniques and principles would apply. So I asked Mr. Anderson if I could make some studies of particularly important jobs to see if some predictors of success could be found. He agreed, and selected two jobs for my study.

One job, aircraft spark plug gappers was a critical one. Huge contracts for aircraft plugs needed to be filled. Women assemblers on the spark plug line used a fixture to set the electrodes of the plug a specified distance from the center wire. Considerable variations in accuracy were found at the end of the line when each plug was checked by the inspectors. Correct spacing ranged from 40 to 140 plugs per operator. Since each incorrect gap meant that the plug had to be scrapped, AC was having difficulty in meeting their schedules. In addition every plug was needed by the planes in combat. Foremen had developed different ideas as to which operators were better for the job: older women or younger women? High school graduates or non high school graduates? So, a number of possible predictors were studied, including dexterity tests, vision checks, and biographical information. The criteria consisted of the actual number of correct plugs for each operator per hour. Complete vision checks were obtained free by Dr. Fleming Barbour, as a war volunteer effort. Dr. Barbour was starting his practice in Flint, and is now considered one of the outstanding ophthalmologists in the city. Years ago, as a senior medic, he had been on my staff in carp!

The validation study showed that certain predictors could be used in selecting women operators for this critical job. Using this selection tool resulted in raising the average number of correct plugs per operator to 125 per hour. This study was reported to top levels of management at AC, and was enthusiastically received. It was also reported by me later to the Michigan Academy of Science.

The second study involved the selection of set-up men. This classification was very important for AC, since these men set up the tools or fixtures used by those on production. With the work force being expanded very rapidly, there was not a large supply of operators with previous experience from which to select for this job. So, a group of more than 50 set-up men were given a battery of appropriate psychological tests, and biographical data were collected. Criteria consisted of ratings of performance by foremen, general foremen, and other members of management who had worked with these set-up men in the various departments. Certain predictors clearly separated the better ones from the less able ones. Again, the findings were presented to top management and superintendents. A selection technique was approved for use.

These studies created a demand for assistance in the selection and placement of new hires at AC. So I arranged for members of the Child Guidance Center staff to volunteer Saturday mornings in testing and interviewing as many as 300-400 applicants. A "testing assembly line!" was set up, with staff members giving one test, and applicants moving from one station to

another, finally getting to the end of the line where the information was gathered together, an interview given, and the information forwarded to the employment people. This approach was largely assessment, done by people with considerable training in clinical psychology.

This voluntary assistance was given by me and the Guidance Center staff for over a year. It was on the part of the staff considered as their contribution to the war effort. Obviously, it could not continue on this basis. Also, as AC management considered the tremendous job ahead, including the training of new employees, the promotion and training of supervision, technical training, etc. there was a great need to coordinate the effort in training and organizational development. So, in 1942 I was offered the position of Director of Training and Industrial Psychologist.

At this time I was also presented with two other opportunities. One was to become Director, Rochester, New York Child Guidance Center, to replace Dr. Carl Rogers, who was moving to Ohio State University as a Professor of Psychology. Also, I received a call from Dr. George Stoddard, Director of the Iowa Child Welfare Research Station, who was going to become President of the University of Illinois. He asked if I would consider replacing him at Iowa. In addition I was still Director of the Flint Child Guidance Center, and enjoyed the job.

The AC opportunities were so challenging and exciting, and needs of the war effort seemed so demanding, I accepted the AC offer and started on my new assignment in June, 1942. I became Chairman of the Board of the Flint Child Guidance Center and Dr. Marie Skodak was named Director.

Experiences at AC Spark Plug Division, GM Corporation (1942-1948)

My experiences at AC during the war changed the direction of my career. As the first full-time psychologist in General Motors, I was a pioneer in applying psychological principles to a great variety of problems in industry. I realized that I needed to learn all I could from articles and studies in the literature, and I collected a considerable file of relevant information. I also corresponded with persons like Bingham, Thurstone, Urbrock, Flannigan, and Bruce Moore, for their ideas.

During these years employment at AC expanded tremendously. Starting from 6800 employees at the beginning of the war, AC grew to 18,000 employees in 1948. Besides producing replacement automotive parts to keep cars running, AC had accepted several large contracts for war equipment. The aircraft spark plug contract called eventually for 40,000 plugs a day. These were packaged, sealed in wax, and shipped to Britain. AC was one of three manufacturing plants making the 50 caliber machine gun. This gun was re-engineered by AC so as to use interchangeable parts, reducing the cost fifty percent. Aircraft bearings was another large contract. The British AI bombsight was only being made at AC. This was also reengineered by AC to take 19 lbs. out of its weight, with many parts interchangeable or sub-assembled. The A-5 automatic pilot for planes was also a very sophisticated product. All these contracts involved products with delicate parts and required dexterity and high degree of accuracy. AC air cleaners were used on allied equipment in the deserts of Northern Africa and were largely responsible for

the defeat of Rommel and his German equipment which did not have air cleaners. So, a constant array of new problems were presented to me and my staff.

Fortunately I had excellent support from top management. From an organizational standpoint I reported directly to the Director of Personnel and Industrial Relations. I had his confidence and he said "keep me informed and let me know if I can help." I worked very closely with Mr. Joseph Anderson, Manufacturing Manager, and his staff. I sat in on all Superintendent meetings and kept tuned in on their problems. I spent considerable time in the plant and was accepted by production supervision personally. I worked cooperatively with the Medical Director. He supported our work and he approved our use of the Bauch and Lomb Orthorater in testing vision of operators for certain key jobs. He and I co-authored an article on Safety, which he presented at the National Safety Congress.

With so many new employees, training was very important. Some programs were carried out by AC personnel. We also had the support of the training staff of General Motors Institute. In order to help new women assembly employees with no previous plant experience to adjust to their work in industry an "Induction School" was set up in a building close to the plant. All new foremen were sent to General Motors Institute for a full week of training before going on their jobs. Classes for general foremen helped them define their responsibilities and do their jobs more effectively. Top management and superintendents were given applied training in human relations. Apprentice training on the various trades was well established, and Harry Burnham, a member of the staff followed up to see that both academic and practical training was properly carried out. AC had a number of young men in the cooperative training program at General Motors Institute. These students were carefully selected using tests and other information. Dorr Snoyenbos, a member of our staff followed each of these young men as they completed their academic training and plant experience. Seventy-five percent of our students ranked in the upper ten percent of the class at GMI. In fact, one, in later years, became General Manager of the AC Division!

One year, during the 3 1/2 month General Motors strike, extensive training classes were set up in the community. They were in churches, YMCA, YWCA, schools, and GMI for supervision and salaried personnel. These classes were carried on five days a week. Each class lasted two hours a day, but a person could choose as many as four classes a day. Persons elected the courses they wanted. The content was varied and included technical subjects, management, recreation, and many other areas. Attendance was very high, and it was estimated that 1 1/2 years of normal training was obtained during the strike period when the plant was closed. our staff coordinated this program.

Many specialized training programs were designed and developed to meet specific needs. For example, the British bombsight needed to be repaired following combat. A group was assembled under a chairman from General Motors Institute. The design group consisted of persons brought from Britain which included engineers, mechanics, bombardeers, manufacturers, and trainers. These persons outlined what should be included in the program, and what should be left out. Methods of training were also suggested. Then the trainers developed the training program. The design group was then reconvened to evaluate the program. After the first training group the

program was again revised and made ready for use. In this case the persons to be trained were in Britain.

Here is another example. When veterans returned from the war they were placed on jobs to which they were entitled. Some of these men had no previous experience on these jobs. Tool and die breakage and scrap reached astronomical figures. Something had to be done. A similar design procedure was used. Foremen, higher supervision, press operators, tool repairmen, and engineers met with a trainer in press work from GMI. A program was developed and given to all the operators on presses and special tooling projects. After one month of part-time training on company time, the scrap costs were reduced one-half, saving some \$25,000 per month. This program was very successful and has been continued over the years.

programs were coordinated by the department. In one, cooperating with Oldsmobile Division, we were asked to assist in training army "trainers" in the overhaul and assembly of the 50 caliber machine guns. AC furnished 10 instructors for the school who were to reside in Lansing for the two months duration. One hundred Army men were sent in each week. The other program required placing 6 instructors in certain air fields where planes were being collected for flying lead-brass to Britain. The T-1 bombsight was being installed in these planes, and this required training of mechanics. This program lasted several months.

I was a member of the Michigan Industrial Training Council, a vice president one year. Each month I would take the company limo with a load of top supervision to the dinner and meeting in Detroit. This developed good public relations as well as got these men identified with an important training group.

When the veterans started to return from the war I was asked to set up a plan which would place them on jobs properly, even though handicapped. In many cases, no problems were presented. Other instances involved both physical or emotional difficulties that required special handling. A clinical approach was used with the Personnel Director as chairman. Others in the case conference included the Medical Director, Employment Manager, the Safety Director, Superintendent or representative from the department involved, and the Psychologist (myself). The case was fully reviewed and recommendations made. A man from my staff, himself handicapped, followed up each veteran to see that recommendations were carried out. This program was written up and had corporation-wide attention. Other corporations also followed these procedures.

Another interesting project took place in Ionia, Michigan. Because the space was limited in Flint, and the applicants were scarce, AC took over a warehouse in Ionia, and planned to use it for the Gridley Automatic Machines needed in making center wires for aircraft spark plugs. Also in order to meet production schedules additional assembly lines were needed. The labor supply was also available in the Ionia area. However, no Gridley Automatic operators were available there, and it was said that it would take a year to train one. It was decided to move the necessary machines to Ionia, and select and train operators to use them. Our staff was asked to select men from the local community who had the necessary mechanical ability and set up a training program for them. So from the farmers, cabinet makers, funeral directors, and various others, we selected a group for training. The plan was to bring an old-time operator from Flint to train them on the machines. An instructor in hydraulics from GMI, and very knowledgeable about the

theory of Gridley Automatics, was to teach half the group in the morning, and the old operator would have them on the machines in the other half day. A "school room" was made by moving boxes in the warehouse. This procedure was followed.

In the meanwhile, three assembly lines were being set up similar to those in Flint. Supervision and technicians were brought from Flint. When metal for fixtures was not available, cabinet makers fashioned them out of wood. So, by the time the trainees were able to operate the machines, the assembly lines were ready. The results were astounding. In the second month production was better than it had been in Flint, and eventually they achieved the schedule of 40,000 aircraft plugs per day!

Other projects were also initiated during these years at AC. Several departments were involved in manpower planning studies. Evaluation committees of higher department supervision, plus those of similar levels in production control, inspection, maintenance, etc., reviewed each foreman or lower level supervisor in terms of their present performance, readiness for promotion, and potential. Career development needs were outlined. Then with this information the strength of the whole department was reviewed. Where weaknesses were seen plans were made to remedy the situation. Talent was uncovered and the strength of the department was enhanced.

The traditional job performance evaluation system that had been used by AC for a number of years was not considered satisfactory by the manufacturing staff. I was asked to assist in developing a better system. One of the best superintendents, an engineering graduate, was assigned to me full-time to get the program established. Together we worked with groups of supervisors to think through the logic of evaluation. First, we asked, why evaluate performance--what are the purposes or objectives? Then, on what basis should evaluations be made? And what form could be developed to record the evaluations? Finally, what will be done with the information, and who will do it? It was agreed the J.P.E. would not be used for rate increases but for development.

Training of superiors in performance interviewing was carried out. At the time, the job performance evaluation program was successful, especially when used by those involved in its development. Over the years, however, persons who did not go through the process of development failed to maintain its effectiveness. At the end of the war the organization shrunk in size and the many changes resulted in the program being discarded. For me, however, it was a great experience in my development. I had never been faced with these problems before.

While most of my activities were with groups, there were instances when individuals would come or be referred to me for counsel. The problem might be personal or emotional, or one of career planning. Appropriate information would be gathered, and counsel and guidance would be provided. This service did not involve many cases, but considerable values to the individuals and the company were seen. A few sons and daughters of top executives were also seen by me.

From time to time I was asked to assist in the recruitment of engineers from the colleges. My interviewing was restricted to Big 10 universities in the Midwest. I visited Illinois, Purdue, Ohio State, and Michigan. I found these experiences interesting.

During my graduate work I had been convinced of the value of belonging to professional psychological organizations. I continued these contacts and memberships in the Division of Industrial Psychology of APA, the Midwestern Psychological Association, the Michigan Psychology Association, and the Michigan Academy of Science. I found that belonging to these organizations brought me in contact with others in the field of Industrial Psychology and the new ideas that were developing. One year I hosted a meeting of the Michigan Psychological Association at AC and had members of top management as speakers. A tour of the plant was part of the program. The requirements of membership were easier then than in recent years and I became a Fellow in the Industrial, Consulting, and Clinical Divisions of APA. In 1947, I was honored with the title of Diplomat in Industrial Psychology by the American Board of Examiners for Professional Psychology.

During these busy years I had put in long hours at AC, but some time was also given to family affairs. We have moved from a rented home to one purchased near the plant. The children were in school and Jennie had become involved in church and community activities. In 1945 we purchased an 80 acre farm on the outskirts of Flint and moved there in December. The children transferred to Swartz Creek schools. Jennie became active in the church choir. I planted a large garden. The 56 acres of tillable land was being farmed by a neighbor. We purchased a riding horse, raised two steers, some pigs, chickens, and rabbits. How I got time to do all of this I don't know.

Getting back to the job, as the war ended the huge contracts at AC came to an end. Employment shrank in numbers, and the organization went through the difficult process of returning to making peace-time products. Retrenchment of the department was also necessary. Manufacturing of guidance mechanisms was shifted to a new plant in Milwaukee, Wisconsin. A large number of engineers and supervisors who had been involved in the various war-time products were transferred to Milwaukee. At the same time production schedules for peace-time parts were being increased rapidly. A great deal of organizational change was taking place.

A number of other divisions of General Motors were requesting services for projects similar to those that had been carried on at AC by our department. These requests could not be satisfied by AC, since it was a policy of General Motors that one division could not serve other divisions in this way. A solution was found when Albert Sobey, President of General Motors Institute, requested my services. So, in 1948 I joined the staff of the Institute.

When I left AC I was honored by a large group dinner at Frankenmuth, a small town noted for chicken dinners. I was amazed at the number of management people who turned out. Apparently I had become accepted as "one of the team." Even some of the top management attended and wished me well on my new assignment.

Consultation Services to General Motors Divisions (1948-1970)

In the beginning it was uncertain as to whether my activities would be a part of Management Training Services or be established as a separate department. It became obvious that the services

requested were varied and did not fit into the management training pattern. So, when Mr. Sobey retired, a new department was established by Mr. Cowing, the new President. I received the title of Director, Personnel Evaluation Services, and reported directly to the President of GMI. A professional staff needed to be developed.

Locating the department at General Motors Institute placed it in a neutral position in the Corporations. It was not a Central Office staff. It was the policy of the Corporation, and of General Motors Institute, that when a Division requested certain services it was expected to pay for these services. In a way this procedure was the same as applied to outside consultants. But our staff as internal consultants was a part of the Corporation and could provide the in-house services more cheaply and effectively. In a way, then, these charges paid for the budget of the department.

From the beginning the objectives of the department were very broad, and can be stated as follows: The Personnel Evaluation Services Department exists for the purpose of assisting executive and managerial personnel in improving their skill and effectiveness in the selection, evaluation, utilizing, and overall development of the human resources of General Motors. The nature of the services varied with the needs of the different divisions and with the human and organizational problems for which solutions are sought.

During the 22 years I directed the department the scope of the services included many kinds of activities. I will not get into descriptions of individual projects in the various divisions. Looking back, however, types of services fall into a number of broad classifications, and they will be discussed here. Staff members with special expertise in a particular area were assigned to them, but considerable staff support was always available. In line with our overall objectives, our consultative services were directed more toward aiding and developing management in doing their jobs more effectively, rather than doing the job for them. Here are descriptions of the kinds of services available. They will be numbered in the sections that follow.

1. Selecting and Placing People on Jobs. Over the years, various selection validation studies have been completed on a number of different jobs. For example, improved selection procedures have been successfully completed on women assemblers, gyro assemblymen, licensed truck drivers, draftsmen trainees, district sales manager trainees, retail car salesmen, apprentices, cooperative engineering technicians, first line supervisors, and longer tenure hourly employees in car assembly plants. However, not all selection studies were successful. Sometimes the solution of a problem can only partially be found in improved selection. More effective job performance may lie instead in better utilization of skills through training, improved supervision, or in the use of more efficient methods of work on the job.

It was recognized, however, that psychological tests, when properly used, can be one of the best means of ensuring nondiscrimination in the selection, placement, and promotion of employees. To make sure that persons fully qualified in the use of tests are available at each General Motors location, a Testing Institute was developed jointly with the Employee Research Section of the GM Central Office. A number of selected individuals representing different divisions were put through the one week training programs.

2. Determining Potential for Management or Executive Positions. Requests for assistance were regularly received from various divisions in evaluating the strengths and weaknesses of candidates for supervisory positions, or in the assessment of potentialities for future responsibilities of present members of the division's managerial organization. In addition to the use of aptitude and vocational tests, interviews were held by a member of the staff with each man to evaluate him further, to interpret the test results to him, and to provide counseling on his development. Summary reports were written for top management, and discussions were held with higher management regarding the subordinate's growth potential, special characteristics, and developmental needs.

In addition, new assessment techniques were being developed to provide more thorough and comprehensive information regarding managerial potential and individual development needs. Here, members of the Personnel Evaluation Services staff work together as a team. Through both individual assessment techniques and observations of individual interactions in specially designed group problem situations, much more information was obtained to aid in identifying and evaluating persons with outstanding potential for future success in management. Further, from such intensive studies the bases for their growth were more accurately described, and developmental programs were designed so that their advancement in management was accelerated.

3. Organizing Comprehensive, Long-Range Manpower Planning Programs. The Personnel Evaluation Services staff has assisted divisions in determining management manpower needs, in understanding what should be included within a management manpower planning and development program, in establishing necessary techniques and methods of personnel evaluation and appraisal, and in counseling the top-level Management Manpower Planning Committee in successfully coordinating and administering the program.

One of the most important phases of the program is the Management Manpower Audit, where all of the information on each person is periodically reviewed by a committee of immediate superiors, and others of similar organizational level from closely related service departments. The individual's growth potential and promotability are assessed, and future developmental actions are projected. For example the Personnel Evaluation Services staff assisted a seven-plant division in a comprehensive Audit of its entire managerial organization in terms of age, education, supervisory experience, job performance, potential, and promotability. Depth of managerial personnel was shown by plants, departments, levels, and by managerial positions. In cooperation with the divisional staff, report and planning sessions were held with the divisional Manpower Planning Committee, and with plant staffs and department heads so that the findings of the Audit were carefully implemented into action programs.

Another example. Working with the overseas Division of GMC an extensive Management Manpower Planning program in the European plants was established. In some locations severe language problems as well as cultural differences were presented to the staff. For example, in Germany, one Audit Committee consisted of General Superintendents who were evaluating superintendents who worked under them or in related functions. Few of the General Superintendents spoke English, so instruction of them in the manpower planning procedures had to be by a translator. Also, the program was being sponsored by the Main Office in New York,

so there was a tendency to "drag their feet" in putting it into effect. It was also "American" and they "already knew better. I was the staff person working with this group. It took great patience. After some rough moments in the beginning, however, the "atmosphere" warmed up, and more friendly relations were established. In the end they admitted they learned many new things about these men that they had worked with for some years.

The Overseas Division also established the program in Mexico. Our experiences there were easier since more English was spoken and the program was more eagerly accepted.

As the programs were established in the various overseas locations, for the first time the New York Office had data on managerial job performance, promotability, and potential which showed up strengths and weaknesses in these organizations to assist in future developmental planning.

Another research project was carried out by myself, with members of the General Motors Institute Board of Regents. While not a manpower planning project, per se, it was concerned with studies of the career paths of men who had become General Managers of Divisions. All General Managers were members of the Board of Regents along with certain higher Corporation executives. Did General Managers come up through the financial line, manufacturing, service functions, etc.? How wide and varied were their developmental experiences? How much academic training did they have, and what kind? These and many other questions were studied by analysis of the careers of General Managers who were members of the Board. This research was carried on by myself in the months prior to my retirement. It was reported to the Board just before my retirement. I do not know how the recommendations have affected recent promotions, but the findings of the study indicated that those making promotional decisions should be aware of the importance of career development planning.

4. Establishing Improved Techniques for Appraising Job Performance. Many personnel decisions, as well as career development planning, depend upon how well an employee is doing his job. How good those decisions or plans may be depends upon the accuracy and validity of available information about the quality of the individual's performance. Since in many instances it is difficult to obtain objective measures of job performance, opinions of supervisory personnel have become extremely important. Frequently, however, such judgments may be somewhat more affected by personal opinions and biases than by objective facts. Therefore, it is important that systematic, more objective approaches be developed for evaluating job performance.

Since the department was established, the Personnel Evaluation Services staff has been assisting various divisions in developing and establishing improved job performance appraisal systems. Job-oriented, and custom-made to support the division's "management by results" approach, these programs have proved to be very valuable management tools. Follow-up studies two to five years after programs were started in eight different plants of two divisions show that both appraisers and appraisees agree that the programs have improved appraisals, aided in determining individual development needs, and increased overall job effectiveness.

5. Determining Individual and Organizational Training and Development Needs. Many different methods have been used in determining training and development needs. Often inferences are based upon observations or methods that are highly subjective. Many times

decisions regarding needs are made without adequate facts. Final plans, however, should be based on a combination of information coming from several sources. The Personnel Evaluation Services staff was called upon by divisions to assist in developing methods for revealing the nature and extent of the training or development needed. The use of tailor-made training needs check lists was found helpful in forming the content of training programs for such positions as sales personnel in one division, for gyro assemblers in another, and for foremen in a third. Many other examples can be named.

6. Research in Identifying and Defining Problem Areas Within a Plant. Sometimes problem areas occur in a plant which greatly affect quality or the effectiveness of the operation. Without facts, methods used in correcting them, or preventing them in the future, often fail to produce the necessary results. Using social science research techniques our staff was able to identify and define problems more clearly and point toward remedial measures.

Illustrative of work in this area was a special study conducted in a new plant which was experiencing many unique problems in getting started. Confidential one-hour interviews were held with 80 salaried personnel representing a sampling of all departments, shifts, and levels. The results provided very helpful information in identifying and describing more fully the impelling problems faced by the plant. With this better definition and delineation, plans for improvements in the future were made more intelligently.

7. Improving the Content of Technical and Managerial Jobs. The content, or composition, of many management jobs has long been recognized to be a result of evolution or natural growth rather than careful study or logical assignment of tasks and functions. Frequently the consequences have been a lack of organizational coordination, imbalances between authority and responsibility, overlapping duties, and even conflicts between the various tasks and functions of a single job.

For example, the production foreman makes a unique and important contribution to the overall effectiveness of the organization. One division decided to undertake a major research project designed to answer

the question "What should the foreman do?" to maximize the effectiveness of the job in the management structure.

By means of over 38,000 observations, questionnaire findings, and interviews with foremen, general foremen, and others related to foremen in parallel managerial or technical positions, a great deal was learned about the job. Results of the study were reported back to the top management of the division, and appropriate remedial actions were taken to improve the content of the job.

Four years later, a follow-up study was made, using the same plants, departments, techniques, and, in many cases, the same foremen. While the results indicated that certain aspects of the job had not changed, many improvements had occurred. Recommendations resulted in long-range planning on changes in job structure, better selection, the establishing of improved measures of individual and organizational performance, and in plans for improving the

effectiveness of higher managerial levels, especially of general foremen as supervisors of foremen.

Similar, but less extensive studies, were made of other levels in the managerial structure.

8. Evaluating Organizational Structure for Better Utilization of Individual Talents. One of the major projects of the Personnel Evaluation Services staff was concerned with a study of the job content, responsibilities, and other factors related to planning the kind of organizational structure needed to meet current and future goals of the Sales and Engineering departments of a multi-plant division. Through the development of various techniques, considerable information was gathered regarding the organization and existing organizational difficulties. Guiding principles were established to assist management in "measuring" the effectiveness of different organizational patterns. Success in completing this study led to a similar study of the Works Manager's organization. One of the important results of the research findings was the design of a better organizational structure for several plants in the division.

9. Investigating Personal and Organizational Factors Related to Success of Operating Units. One of the most interesting projects resulted from a question from the Sales Department of a car manufacturing division: "What are the psychological and organizational differences between dealers and dealerships that are associated with high, average, and low market penetration?" Following considerable study, a questionnaire was designed to measure a large number of behaviors of a dealer and the dynamic characteristics of his dealership. The final analysis, based on 81 dealers and dealerships, resulted in a number of findings which will help the division to increase its sales by motivating dealers to improve their operating methods to conform more closely to those of high penetration dealers. Further, from the results of the study, dealership training programs were enhanced, and a diagnostic tool became available for helping zone managers to be more sensitive to the less effective management practices of a specific dealer.

10. Using a Research Approach to Aid in the Solution of Problems of Individual and Organizational Performance. A most fascinating challenge was presented to the staff by a complex project conducted with a division building space guidance equipment. Performance of an operating unit needed to be improved. Two major areas of investigation formed the broad framework of the study: (a) the assembler himself-his background, abilities, attitudes, motivation to work, skills, training needs, etc., and (b) the environment in which he moves and works-his foreman, his coworkers, his work place, and the organization of various gyro assembly operations in relationship to his activities. The findings have resulted in extensive recommendations and improvements in both individual and organizational performance.

11. Identifying at an Early Date Significant Factors Predictive of Later Success of Engineers and Executives. Research in this area was based on several beliefs: (a) that there are individual differences between more successful and less successful engineers and managers, (b) that these differences can be measured at an early date, and (c) that the chances for a student, or a new hire, to be successful are greater if his own characteristics are similar to those of engineers and managers who are presently more successful.

The major objective of this interdivisional project was to study various abilities, interests, personal characteristics, biographical information, and other factors in the individual's background which may be predictive of his later success in engineering or management positions. These were then related to various criteria of success so that, in the end, those factors related to success can be identified in individuals with high potential early enough in their careers to provide the kinds of experience and training they will need for positions of later responsibility.

12. Services to General Motors Institute. Within General Motors Institute, the work of the Personnel Evaluation Services Department covered many of the same areas as in the services to the divisions. Both fields of service complement and contribute to each other. Typical General Motors Institute projects are concerned with: (1) Improving the selection and retention of cooperative engineering students; (2) assisting instructional departments in improving measures of student achievement; (3) developing better means for evaluating the performance of instructional personnel; (4) aiding in establishing a manpower planning program for the teaching staff; and (5) providing technical assistance in conducting the faculty attitude survey.

The Staff

Obviously, in order to achieve such a broad scope of activities I had to have an outstanding staff. I was very fortunate. During these years I kept in touch with faculty and advisors in the leading universities offering graduate training in Industrial Psychology. My principal sources of candidates were from the universities of Purdue (Drs. Lawshe, Tiffin), Minnesota (Dr. Dunnette), and Ohio State (Dr. Burt). Applicants from other schools were also considered. In the early years turnover became a serious problem for me since the field of Industrial Psychology was rapidly expanding, my staff members were very superior, and the salaries I could offer were not competitive. The salary schedule at GMI classified my staff with instructors in the engineering schools--too low for persons with the background of training and potential of my staff members. This was later corrected.

I will not mention the names of all my staff members over the years. Some were hired with a Masters degree and advanced course work. They were encouraged to complete their Ph.Ds, and assistance was given. Howard Carlson and Richard Clingenpul were given leaves of absence and General Motors scholarships. Carlson finished his degree under Dr. Dunnette at Minnesota; Dick Clingenpul received a scholarship also and finished his Ph.D. under Dr. Tiffin at Purdue. Bruce Springborn completed his dissertation and received his degree from The University of Michigan. Frank Uhlman took some courses afternoons and evenings and completed his Ph.D. from Wayne University. James Boyce used data from one of our GMI projects and received his degree under Dr. Lawshe at Purdue. Al Kubany finished his Ph.D. degree at the University of Pittsburgh shortly after joining the staff.

Three of my former staff members received high honors from Division 14, the Industrial and organizational Division of APA. Delbert Landen and Richard Campbell received the award in Professional Practice. Richard Campbell and Arthur MacKinney were also honored as Presidents of Division 14. I am proud of their achievements.

Laura Austin was hired as my first secretary after her bachelor's degree from Michigan State University. At that time I needed someone who had a major in mathematics and who could also type. She turned out to be able to do some of the earlier statistical work. She learned rapidly and soon became our statistical technician. She was allowed time off certain afternoons and evenings to take courses at Wayne University, where she received her Master's degree. When the computer section at GMI was being established she asked to be considered as its head. She received the appointment. During this period she became Chairman of the Corporation's Committee on Small Computers. Later she was promoted to Director of Employee Services of General Motors Institute until her retirement.

Not all the staff who left my department were lost to the Corporation. In fact their training and experience meant promotions for them to other Corporation functions. LeRoy Morter, an early staff member with an MA from Columbia University, became Personnel Director of several assembly plants and retired as Regional Personnel Director of the Division. Dr. Landen became Director of the Employer Research Section in the Central Office. He taught at Wayne University and later set up his own consulting business. Dr. William Chew held several positions in the Corporation's Personnel staff and eventually became General Director, Advance Planning Section. Dr. Howard Carlson, after having several divisional and Central office assignments is now General Director, Organizational Research and Development Section, with a considerable staff, carrying on some very significant projects. The work of the Personnel Evaluation Services staff in the various divisions prepared the ground for more recent, very important projects.

Those members who took positions elsewhere have been successful and have made contributions to the field of Industrial Psychology. Some have achieved academic teaching careers, others, positions in other companies. Certain ones have become consultants. I am very proud of them and glad to have had a chance to contribute to their successful careers.

Professional Activities (1948-present)

During the years as Director, Personnel Evaluation Services, GMI, I participated in various professional groups, and encouraged my staff to do so also. My earlier activities were described in a previous section. Division 14 of APA received most of my interests. I was elected to the APA Council of Representatives for several terms, representing Division 14 and Division 13 (Consulting Division). I served on the Executive Committee of Division 14, and was Secretary when Dr. Irwin Taylor was President. In 1961 I was President. Two years later I became President of Division 13. I was a member of the International Association of Applied Psychology and attended meetings in Rome (Italy), Copenhagen (Denmark), and Ljubljana (Yugoslavia). These meetings were three years apart. At this last meeting I presented a paper on Interviewing in Dr. John Flanagan's session. Locally I was President of the Michigan Psychological Association, and an honorary member of the Michigan Society of Industrial and organizational Psychologists. I am a member of the Midwestern Psychological Association and attended meeting fairly regularly in Chicago. One year I was Chairman of the Program Committee for the Industrial Section of Midwestern.

One of the most valuable groups I belonged to started informally in 1954. I was invited to join the group in its second year of existence. This group consisted of Industrial Psychologists of large corporations, a few consultants to industry, and some in teaching and consulting positions in universities. In order to maintain its informality it had no officers, by-laws, or name. It got to be known as the "No Name" group. Members met in the Fall and Spring, alternating locations in

the East and Midwest. From the beginning, members desired to get together to discuss each other's programs, present ideas regarding projects, get opinions of others, and keep aware of new developments in the field. A "host" was appointed for each meeting to make arrangements for the next meeting, but each member's expense account covered the costs. During the years I became a sort of secretary and historian, and I continued to meet with the group even after retirement. I am sure the close associations with members of this group have contributed to my career.

Personal Factors Affecting My Career (1948-present)

In the preceding pages I have tried to describe the forces, influences, and experiences which have helped to shape my career. Many personal factors have been recognized, but not described in any detail. Their importance, as a part of a more complete autobiography, is certainly recognized. They will be briefly mentioned here, without going into their impacts specifically.

Being head of a household carried many responsibilities. With the longer hours I spent on the job, I wonder how I was able to carry the load at home. My wife, Jennie, was very understanding and supportive. The children were in high school when we moved to the farm. The girls, Margaret and Ruth, were very good students and took care of themselves academically. They participated in school activities, were eager learners, and graduated as valedictorians of their classes. Our son, Forrest, was more of an average student, more interested in outdoor things on the farm. He was bored with farming, as such, so we rented the tillable acres to professional farmers. During the earlier years of this period we raised some steers, pigs, chickens, rabbits, bantam chickens, fancy pigeons, turkey poults, etc. We had a good sized garden, and Jennie did a great deal of canning of vegetables and fruit. She was very interested in the church, directed the senior and junior choirs, belonged to the women's groups, sang in musical groups in Flint, and was generally quite busy.

As the family grew up and the children graduated from high school new responsibilities arose. Margaret went to Albion College, graduated, and married. Ruth went to Ohio Methodist University, then transferred to Colorado University where she graduated in education. Forrest set up his draft date and joined the army. After training, he was transferred to units stationed in Northern Italy, where he was a guided missile repairman. He returned, finished college at Michigan State University, and obtained a job with the Buick Motor Division, as a manufacturing engineer. During the years, additions to the family were born so that today we have nine grandchildren and eight great grandchildren!

The greatest blow occurred in February 1966, when Jennie died while visiting a niece in California. She had had the flu, complications occurred, and she had a massive cardiac arrest. I was working in a General Motors plant in Illinois at the time. I brought her body back to Michigan for the funeral and burial. Following her death, living alone at the farm was a very lonely period. So, later, I married Marie Skodak, with whom I had worked on the Rackham project, who was Director of the Dearborn schools special education program, but who also carried on a part-time private practice in Flint.

Retirement Years (1970-present)

I retired from General Motors in 1970. While opportunities for consulting work were available, I decided not to get involved. Instead Marie and I did a great deal of traveling. We belonged to the Nomads Flying Club, based in Detroit. Members of this club own a 727 airplane, have their own hanger and lounge, and have many trips, both shorter and longer ones, going out each month. During these retirement years we have taken 28 trips totaling 186,000 miles. Included were trips to Caribbean Islands, Mexico, Panama Canal, various European countries, Russia, Africa, and China. Other tour companies were used for trips to New Zealand, Australia, South Sea Islands, Central America, and South America.

Since retirement, fewer professional meetings have been attended. It is good to see younger members take over! However I have continued to participate in the No Name group, and occasionally in the local associations nearby in Michigan.

One of my activities for the past 50 years has been membership in the Flint Kiwanis Club. I am now its oldest member, and have been honored by being named to International membership. I have served on a number of committees, on the Board of Directors, and was President in 1976-77.

Another group, the Retired Men's Fellowship of Greater Flint, has grown from 15 members in 1970 to 250 members this year. I was President in 1988. It is a good group, meets each Monday morning (except during the summer), has good speakers, and provides enjoyable fellowship.

Finally, in July 1989, a Crissey family Reunion was held at the farm over the Fourth of July weekend. Having canceled a trip to Russia, Marie and I took the money to bring all the family together, all expenses paid, from wherever they were. There were two from Alaska, three from Denver, four from the Philadelphia area, and the rest from Michigan. All thirty, including the grandchildren and great grandchildren arrived and had a fine weekend together. Rooms were reserved in a nearby motel, pictures of the whole group and each family were taken, and Sunday dinner was arranged at a Country Inn nearby. Otherwise everyone enjoyed the visiting together at the farm. It was very successful and the first time we had all been together.

So, looking back over 85 years, I have had a successful career professionally, supported by a home life that has been a happy one. I have been very lucky!

February 26, 1990

Orlo L Crissey