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FOUR SPEECHES

delivered at the

SEVENTH ANNUAL BAY AREA MANAGEMENT CONFERENCE

on

INDUSTRIAL EXPANSION IN THE BAY AREA

at the Claremont Hotel, Berkeley
February 27, 1957

presented by:

Institute of Industrial Relations (Berkeley)
School of Business Administration
Graduate School of Business Administration
University Extension, Northern Area

of the

University of California, Berkeley

and

United Employers, Inc., Oakland
Oakland Chamber of Commerce
Alameda County
Manufacturers Division

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Opening Address

BAY AREA INDUSTRIAL POTENTIAL

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BAY AREA INDUSTRIAL POTENTIAL

By David D. Bohannon

From comparative obscurity one hundred years ago, California has become the second largest state in population and may soon pass New York. The factors responsible for California being the fastest growing state in the United States are many and this trend may be expected to continue in the foreseeable future.

The natural appeal of California - its resources, climate, and opportunity had sufficient power to stimulate the great growth of the past. The sales force now numbers millions, whereas a few decades ago it was only thousands. Activity stimulates related activity and thus increases velocity. Industry, like people, is gregarious. The advantage of being closely related by communications and travel time to many other industries is an impelling factor in site selection.

The labor force in a highly diversified region attracts and holds a higher and higher caliber of personnel, both management and production. Most industrial activities are dependent upon many other services and functions which require movement of goods economically and quickly, not only in the distribution of finished products, but also in the procurement of parts and materials. As our Freeways and bridges are developed in the Bay Area, our industrial potential will expand.

The metropolitan market, as well as the purchasing power of the entire Pacific Coast and, for many industries, the national and international markets will dictate site location. We are in an era of transition, which will accelerate with the increasing population of California and the Pacific lateral. The fabrication of raw materials, and not just the assembly of parts fabricated elsewhere, will produce a major industrial expansion which is now feasible because of a large enough population to justify Pacific Coast operations. The cost of distribution and the desire to tap this rich market with the constant pressure of competition are compelling forces.

Public awareness and understanding of the advantages and necessity for a healthy, balanced industrial base are important to the official and political structure, to the end that industrialists seeking locations find an official climate favorable to a happy business existence. The ever-increasing standards of living and social amenities are thus supported within a sound fiscal policy.

It is no accident that the growth of this state has constantly accelerated. California is the nation's foremost state in cash farm income, it has more passenger car registrations than any other, is third and most diversified of all states in value of mineral production, it leads the states in new construction, and is second in personal income.

Increasing numbers of new residents require greater amounts of goods and services, of home and job-providing industry.

California's present population of 13.6 million represents a 28.5% increase over the 1950 census. This three million increase represents

better than one-sixth of the entire population growth of the United States during the period.

All recognized economists agree the outlook is for a continuing high rate of population growth. Projections by Stanford Research Institute indicate State population of 15.4 million persons by 1960, 17.8 million by 1965, 20.5 million by 1970, and 23.6 million by 1975, or an increase of ten million over current estimate.

We can therefore expect the addition to the facilities and services required to service this additional 10 million people. The magnitude of this requirement is emphasized when we realize this means duplicating what we had in total facilities in 1950. This also points up the fact that it took one hundred years to attain that ten million population.

California's growth from 2% of the nation's population in 1900 to over 8% today -- and probably 10% by 1970 -- is mainly due to in-migration. From 1900 to 1940 only about 15% of the population gain resulted from natural increase, but from 1950 to 1955 the percentage rose to 37%. Our population base is now large enough to provide significant numerical growth from this group.

California is one of the most urban of all states in the Union. This large segment of urbanized population provides a foundation for a substantial manufacturing industry which is essential to a high rate of employment and good per-capita income.

California has not only been able to provide employment to care for its expanding population, including those who came to the state during World War II and the Korean War, but its unemployment factor is substantially less than the national average.

Ernest B. Webb, State director of industrial relations, recently reported, "More California factory workers were employed last month than in any other January in history. Factories employed 1,215,800 wage and salary workers last month, which was 89,200 or 8% over a year ago.

"More than 90% of the total gain was in durable goods plants, with the largest increase in aircraft, electrical equipment, ordnance and machinery. In the nondurable goods, gains were reported in paper, printing and publishing, chemicals and petroleum."

Carl F. Wente, past president of the California State Chamber of Commerce, told the Section on Business Economics of the Commonwealth Club of California that 1.2 million new jobs of all types were created in this state from mid-1947 to mid-1955, and that the gain in manufacturing employment was 13% greater than that experienced in New York, Pennsylvania, Ohio, Indiana, Michigan, Illinois, and Texas combined.

"Our most rapid employment advances during those years," he said, "were in the following: for the fabricated metals industry, the employment increase was 50%; in the paper industry, it rose 90%; for instruments, the increase was 120%; in the transportation equipment field, it was 130%; and in the electrical machinery field, the employment skyrocketed 240%."

California's employment is increasingly approaching the national pattern. Emerging from a trade and service economy in 1940, California has broadened its manufacturing base, so that by 1955, 27% of the State's non-agricultural employees were employed in factories, compared with a national proportion of 33%.

The Bank of America, in its June 1956 "Economic Bulletin" points out that changes during the past fifteen years have been of such magnitude that California appears to have crossed the threshold into a new type of economy. No longer is it merely a peripheral economy supplying a few specialties to the national market, in return for most of its manufacturing goods. Rather, it has been transformed into a powerful regional economy capable of meeting a larger share of its own needs.

The Census of Manufactures show that California has raised its relative position in industrial output from eighth place in 1939 to seventh in 1947 and to sixth place in 1954.

In addition to manufacturing, proportionate gains were also made in construction and government employment. In 1940, 4.7% of the total employed were in the field of contract construction. By 1955, it had increased to 6.5% reflecting California's continuing high rate of building as well as public works and highway construction. Those employed by federal, state, and local governments rose from 9.8% in 1940 to 13% in 1950.

Because population growth is placing a burden upon the productive group, the state must encourage those industries which pay high wages and salaries. That this trend is developing is pointed out by Warren S. Thompson in his book "Growth and Changes in California's Population." He said:

"Certain industries, such as the electronics and aircraft industries, appear to have a higher technology based-growth potential, due to constant development of new products and processes, as a result of research and development activity. A high percentage of California's manufacturing employment is in industries of this nature. The fact that California has a larger proportion of high-growth, rather than low-growth industries, acts as a stimulus to the state's economy."

Variety in abundance, brought about by converting California into almost one huge irrigation and reclamation project has made it the nation's most productive state. Although less than 8% of its population live on farms, it leads all states in cash farm income.

According to George B. Alcorn, Director of Agricultural Extension of the University of California, "With its \$2.5 billion farm income, California can still be the number one agricultural state 20 years from now, despite the population influx that is replacing agricultural land along the coast and in Southern California with urban and suburban developments."

"The Central Valley will continue to expand, and within 20 years we can expect an increase of perhaps three million irrigated acres, mostly in the San Joaquin Valley and also to some extent in the southern desert areas. Additional water will be more costly, and capital investment per farm,

already several times larger than 20 years ago, will continue to increase as economics dictate larger size operations."

Alcorn points out that more science will be applied, and research will greatly change methods. There are twice as many college graduates among California farmers today as in 1940.

The West has more than doubled its industrial output since 1947, and is responsible for more than 15% of the nation's subsequent total national increase in production, according to the 1954 Census of Manufactures.

Mr. Wente cited projections by economists that by 1975 western population would be more than 43 million - with California accounting for half of this total. Population of this number would provide California manufacturers with an excellent market for their products.

The major fields in which industrial expansion is taking place is in fabricated metals, electronics, building materials and food products. Other industries which are growing and appear to have an excellent future in this state include textiles, lumber, paper, chemicals, apparel, furniture, petroleum by-products, leather, primary metals, machinery and transportation equipment.

California has not only absorbed all available labor postwar, but the newer industries such as aircraft and electronics continue to search for engineers and skilled technicians. Our educational institutions have facilities to graduate enough engineers, but enrollments are lagging. The demand is expected to become even more acute; predictions are made that one engineer will be required for every twenty workers in 1975, compared with one for every 100 in 1950.

The combination of climate and educational, scientific and social facilities make California a highly favored locale for the scientists, engineers and technicians who are the backbone of our newer industries. Mr. Wente, in commenting on this subject, said:

"We are now operating one of the most successful, but little known, apprenticeship programs in the Nation. Our universities are engaged in the largest building program ever undertaken. These centers stand on equal footing with the best in the world.

"The excellence of our scientific laboratories is proven. In the future, as in the past, industry will increasingly become more dependent upon these research groups. It will be around these centers of investigation that our new industrial giants will first break ground."

Despite the brilliant growth potential, there are major problems that must be kept in mind. While the aircraft industry, employing 260,000 people, is the state's largest single industry, and the airframe manufacturers have their largest backlog in history, the industry's future depends largely on the policy and orders of its major customer, the United States Government.

Contraction of government aircraft and missile programs, or an industrial dispersion policy, could seriously affect Southern California

and be felt generally throughout the state. While the affected region and the state have devoted some study to the problem, adequate attention has not been given to this potential danger.

Insufficient primary steel capacity has been one of our greatest industrial materials handicaps and has kept many manufacturers from establishing western plants in the state.

Western steel consumption is less than half the national average. This is partly accounted for by the concentration elsewhere of the automobile industry which is the largest user of steel. Western mills supply only part of the region's 6.2 million ton steel products demand, which is expected to expand to 8 million tons by 1965. It has been predicted that these mills, which added 2 million tons of ingot steel capacity in the last decade, will have to add 3 million more tons in the next ten years, just to care for the growth of the western market, without displacing the supply now coming from the east or foreign countries.

Leslie B. Worthington, President of Columbia-Geneva Division of U. S. Steel Corporation, was quoted in the press just one week ago to have made the observation that the day will come when the West will have everything the East has in the way of facilities to produce steel.

California is second only to Oregon as a lumber producer and uses more lumber than any other state. Lumber ranks third among the manufacturing industries in the state and provides employment for over 104,000 people.

I am sure the importance of diversified employment is fully appreciated. The Urban Land Institute Industrial Council has conducted Panels in communities where little industrial development had previously taken place. Without exception, the motivation for having this expert group make a broad analysis of the industrial potential for a given community is the increasing awareness of rising taxes and to maintain the school and civic costs, as it has been clearly demonstrated that taxes in a community become unbearable without the balance of revenue from large industrial and commercial assessed valuations and without a proper balance of industrial and commercial capital investments.

There is no question as to the opportunity here in the Bay Area for industrial expansion. I think the foregoing statistical background points up the opportunity on the Pacific Coast for a far greater base of all classifications of industrial expansion. The population of the Pacific lateral has created a market potential which justifies the fabrication and processing of manufactured items in sufficient volume to support independent western plants.

Industrialists are seeking highly-trained professional consultants to determine just where they will locate their western plants. One of the high-priority functions of a Chamber of Commerce is to assist these experts in finding the answers they seek. However, the Chamber of Commerce can only meet the competition if it has the merchandise to offer.

There is a sharp trend throughout the country toward planned industrial development. The community which is best prepared in its official attitude, public support, and land planning has the advantage. The

San Francisco Bay Area, located on one of the world's greatest harbors, with excellent transportation, both rail and highway, a focal point reaching into the hinterland with its rich natural resources and hydro-electric development, is limited in its potential only by desire to capitalize the great opportunities which lie ahead. This perpetual vacationland has developed a splendid labor force through its expanding residential development. It is this base which can assure an industrialist of an adequate diversified source of personnel.

The question may be asked - Which comes first, the job opportunity or the personnel? Just as long as California continues to have this ideal climate, its natural resources, its appeal to human beings, we will continue to have a flood of people crossing the Sierra Nevadas, just as our pioneers of one hundred years ago came for a new life, new opportunity, new pioneers of today will continue to flow into California for the richer opportunities which are here.

In conclusion, I am optimistic about the future of the Bay Area because it has so much that can be developed, that can be improved, that can be done, through competitively holding its position with the great growth of California and this, to a greater degree, than those areas which have become more fully developed. So, the Bay Area and its rich hinterland offer a challenge for men of vision to better plan, to take advantage of the opportunity so apparent here.

THE COMPETITION FOR MANPOWER

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THE COMPETITION FOR MANPOWER

Mrs. Margaret S. Gordon

During the last few years, we have become so accustomed to thinking in terms of "the coming shortage of manpower" that anyone who questions the likelihood of a general scarcity of labor is in danger of being branded as a heretic. Let me hasten to add that I am not about to become guilty of a major heresy, just a minor one. And let me also point out quickly that I am going to concern myself with the relatively safe long run -- the next ten years or so -- and not with the dangerous short run -- the next year or two. With a depression that will "make your hair curl" being forecasted on the one hand and a dangerous continuing inflation on the other; with the stock market behaving in a neurotic manner; with residential building permits down and unemployment showing a more-than-seasonal rise for the first time in almost three years, while the cost of living continues to go up -- it is a brave person indeed who ventures to predict what the economic situation or the state of the labor market will be like a year from now.

But predicting what the labor market will be like ten years from now is something else again. In the first place, if I turn out to be wrong, you won't remember what I said ten years from now. But -- more seriously -- there are certain aspects of the situation a decade hence that can be predicted with a good deal of accuracy, though there are others that are just about as uncertain as the Dow Jones average six months from now.

It was Peter Drucker, I suppose, who was chiefly responsible for the widely held notion of a coming shortage of manpower. Writing in Harper's in March 1955, he said:

"We start with a paradox: there are going to be more people, and hence more jobs, but not more people to fill the jobs. It is more than possible, in fact, that a continuing feature of the next two decades will be a labor shortage -- and that the basic problem of the period will not be unemployment but inflation.

...

"The total population of the United States, now at 162,000,000, can be expected to top 190,000,000 by 1965 and 220,000,000 by 1975. These are conservative assumptions.

...

At the same time that the total population will grow very rapidly, however, the working population will grow very slowly, if at all. With total population increasing by thirty million, the number between 20 and 65 years of age (the bulk of our working population) will go up at the most by seven million. In the group from 25 to 45 -- the one from which every employment manager in the country prefers to choose -- there will actually be a shrinkage of two million. On the other hand, there will be six million more people over 65, and at least 16 million more under 20, than there are today.

"From 1965 on, in the second decade ahead, total population and working population should be in better balance. Beginning in the early sixties, the large baby crops of the forties will reach maturity. Population of working age will thus increase by 12 million or so during the second decade. And assuming that there is a slight drop rather than an increase in the birth rate of the families these grownup children form, the subsequent increase in total population and in working population will stand in the same ratio (five to two) in which they stand today."

Now where is the flaw in Drucker's argument, if there is one? It all sounds very plausible. One answer, I think, is that Drucker did not pay quite enough attention to the possibility of changes in what we labor economists like to call the "labor force participation rate" -- that is, the proportion of people in the labor force. In fact, if Mr. Drucker had been writing in the spring of 1956 instead of the spring of 1955, he probably would have qualified his conclusions somewhat. For by the spring of 1956 it was clear that some rather remarkable things were happening to labor force participation rates.

Between 1950 and 1955, the proportion of men in the labor force rose slightly for every age group except those from 14 to 19 years of age and those 65 years of age or older.

More striking changes took place among the women. The proportion of women in the labor force rose for every age group except those 14 to 24 years of age -- and very marked percentage increases occurred for women from 45 to 64 years of age.

The result of these changes was a considerably greater increase in the supply of labor than had been predicted in 1950 -- constituting the clearest demonstration we have had, except perhaps during World War II when similar changes occurred, that the supply of labor does tend to adjust itself to changing demand -- at least when demand is rising. At the same time, it must be recognized that the sharpest rise was occurring among middle-aged and older women.

Now what is likely to happen to the supply of labor in the next ten years? Let us go back, for a moment, and consider what has been happening to the birth rate, for it is the changes that have occurred in the birth rate in the last 35 years or so that are chiefly responsible for our present problems -- and for Peter Drucker's predictions. We are all aware that between the early 1920's and 1933 -- the low point of the Great Depression -- the birth rate fell quite sharply. From 1933 on, the birth rate began to rise -- very slowly -- and in 1942 jumped sharply to a high level which has largely been maintained during the last 14 years. The result is that during the late thirties and throughout the decade of the forties the number of boys and girls aged 17 to 18 -- the age at which most young people enter the labor force -- was declining, reaching a low point about 1950 or 1951. After that, the number of young people began a slow increase, but a marked rise in the supply of these young people will not occur until 1959 or 1960, when the crop of babies born in 1942 begins to enter the labor force.

If we look at the latest predictions issued by the Department of Labor of the growth of the labor force in the coming decade -- that is,

from 1955 to 1965 -- we find that a labor force of about 79,000,000 is anticipated in 1965, representing an increase of slightly more than 10,000,000 over the 1955 level. The number of men is expected to rise by a little less than 5 million -- of whom 2,700,000 will be from 14 to 24 years of age and 2,300,000 will be 45 years of age or older. In the prime working age group -- 25 to 44 years of age -- there will be practically no increase. In fact, in 1965, there will be 700,000 fewer men aged 25 to 34 than ten years earlier, while there will be about 600,000 more men in the 35 to 44 age group.

The increase in the number of women in the labor force in this ten-year period is expected to be slightly larger than the increase in the number of men -- about 5,400,000. As in the case of men, the most pronounced increases will occur among the very young and among those 45 years of age or older. The 14-24 age group is expected to increase by 1,800,000 and the 45 and older group by 2,600,000. Little gain is anticipated in the 25-34 year age group in which most women are occupied with child raising and homemaking, but the 35 to 44 group is expected to increase by nearly 1,000,000.

Will this increased supply of labor be great enough to take care of the increased demand? This depends in large part on how rapid the expansion of economic activity turns out to be. It also depends on such factors as the rate of increase in productivity and the strength of the trend toward shorter hours of work. Taking all these factors into account the Department of Labor predicts that the total number of employed workers in 1965 will be about 74,000,000. Allowing for about 2,800,000 persons in the armed forces and unemployment of about 3 per cent, a labor force of 79,200,000 would be large enough to take care of this increased demand for workers.

But this is by no means the whole story. What kinds of workers are going to be most needed -- in an age of automation, and in general, of rapid technological change? Mr. Worthington is going to have some things to say about this, with particular reference to what has been happening in the Telephone Company. I shall confine myself to some general comments. On the whole, the most rapidly expanding needs will be -- as I think we are all aware -- for the most highly trained and skilled workers. The sharpest increase in employment, amounting to nearly 40 per cent in the next decade, is expected to occur among professional and technical workers. Other pronounced increases will take place in the employment of clerical and sales workers, skilled craftsmen, proprietors and managers, and semi-skilled operatives -- in about that order. The employment of service workers will probably increase only a little more than ten per cent, while the number of farm workers and laborers will continue to decline.

At this point, I am ready to sum up the extent of my agreement or disagreement with Peter Drucker. For a number of reasons, I don't believe we are likely to experience a general shortage of manpower, particularly from 1959 or 1960 on -- unless there should be an international catastrophe. But we are almost certain to experience selective shortages, much like those we have been facing in the last few years. We shall have to live with a lack of balance between demand and supply in qualitative terms, for the most marked increases in supply will not be occurring among those age and sex groups from whom we would expect to draw our most highly trained and skilled workers.

The challenge of the next decade, then, will be how to achieve more effective utilization of a labor force that will be far from ideal in terms of meeting our requirements for trained and skilled manpower. Mr. Worthington and Mr. Raschen will have some interesting things to say about how this problem is viewed in a very large and a rather small company. What I should like to do is to mention very briefly some of the various approaches to this problem with which management will inevitably be concerned. When we get into a discussion of this type of issue at a management conference, we almost always wind up by discussing training programs, and there is no doubt that training programs will be important. So will an improvement in the quality of vocational and professional training in the schools and colleges for the rising supply of young people -- a problem with which employers need to concern themselves in their capacity as citizens, and in which, in fact, some employers are demonstrating an increasing interest. But there are other aspects of this problem that I should like to touch on briefly.

To what extent are employers analyzing their existing personnel in terms of achieving optimum utilization? This is extremely important, for the problems of the next decade, as I have envisaged them, will be very much like those of today. Are we achieving, for example, the most efficient utilization of professional and technical manpower? In this connection, I was struck by Dean Terman's comments, as quoted in the press about a week ago, to the effect that the alleged shortage of engineers was greatly over-rated. He pointed out that 25 per cent of those now graduating from college have been trained in engineering or other physical sciences, and he doubted if we needed as many as a fourth in these fields. There are shortages in other professions as well, and these shortages will be enhanced if too many are trained in engineering. Many engineers, he said, have drifted into sales, service, and administrative positions, which means there is no great need for them as engineers.

On a somewhat different level, are employers using scarce skilled or semi-skilled male workers on jobs that could equally well be done by women? The experience of one or two of the electronics firms on the peninsula in training ordinary housewives to perform tasks requiring a considerable degree of skill and precision has been most encouraging. The complaint is often made, of course, that turnover is high among women, but this appears to be more true of young than of older women. And even among the younger women, is there a possibility that turnover might be reduced if employers were to experiment with, say, four-hour shifts?

And what about the whole question of the utilization of older workers, which I shall merely mention because we went into it to some extent at last year's conference.

Another question with which employers will almost certainly have to be concerned during the next decade, as wages continue to move up, is the question of the appropriateness of existing wage structures in the face of the selective shortages we may anticipate. This is a problem that individual employers can't do much about but that groups of employers may have to consider carefully in analyzing their salary structures or in preparing for wage negotiations. Are skill differentials high enough to attract an expanding supply of workers into skilled occupations? Some labor experts are predicting a narrowing of skill differentials during the next decade. I hesitate to question their predictions, and yet I am not convinced

they are right, in the light of the analysis of labor demand and supply I have been discussing. Nor am I convinced that such a trend should not be resisted. In a similar vein, are we likely to overcome the problem of shortages of skilled office workers if women can earn more in factory jobs than in office jobs, as is increasingly the case? And finally, to jump to a higher level, what can be done about the fancy salaries being offered college graduates? Some companies are attempting to adjust the salaries of all workers to keep pace with those offered college graduates. But other companies, according to a recent report of the National Industrial Conference Board, say they are unable to do this and stay in business. Will the latter group of companies lose out because of the damaged morale of their more mature managerial workers, or will they find, as the crops of college graduates begin to rise, that they have been wise to resist the current trend?

Finally, I should like to say a word or two about the special manpower problems of the San Francisco Bay Area. Will the manpower shortage be more severe here than in less rapidly expanding areas? On this point, a few general comments based on my historical study of California's population growth might be in order. This study showed, first, that the periods of heaviest migration to the state have occurred when employment opportunities were expanding more rapidly here than in the country as a whole; second, that most migrants to the state are not -- as the popular myth would have it -- retired Iowa farmers, but young urban workers who come here in search of jobs; and third, that wage differentials between California and the nation have tended to be higher for unskilled workers than for skilled or professional workers.

Right after World War II, job opportunities in the San Francisco area were not expanding as rapidly as in the nation, but in recent years the situation has changed considerably. In the three years from 1953 to 1956, which we might call the post-Korean period, employment of wage and salary workers in the San Francisco Area increased 6.8 per cent, as compared with 3.6 per cent for the nation as a whole. But, may I add the increase for the San Francisco Bay Area would be less rapid than I have indicated had I not included the San Jose Area as part of the San Francisco Area. It is in the San Jose Area that the most rapid advances in this part of the state have occurred, as most of us are aware. Even if the San Jose Area is included, however, increases have not exceeded those in the nation in all major industry groups. It will come as no surprise that the most spectacular relative increases have occurred in electrical machinery, other machinery, paper products, printing, food products, and construction. We have lagged behind in finance, insurance, and real estate, and in government employment.

Now what does all this suggest with respect to the manpower outlook in this area -- again over the next decade or so, not the next year or two? If present trends continue, and are not reversed as a result of industry dispersal policies, we may anticipate a more rapid expansion of employment in this area than in the nation. And along with this, we may anticipate a continued heavy flow of in-migrants. Because these newcomers are likely to be heavily concentrated in the young adult age groups, we may very well find ourselves in a somewhat more fortunate situation than the nation as a whole with respect to the age composition of our labor supply. Whether this will actually happen, in the very special kind of labor market I have been sketching will, I think, depend to some extent, on what we are prepared

to do to attract these young workers. We may find that we shall have to pay more attention to wage structures than employers in the rest of the nation if we are to attract the more highly trained and skilled young workers. But, on the whole, I should guess that, despite the increasing threat of smog, the climate of Northern California will continue to be the personnel director's greatest ally.

Luncheon Address

EVALUATING OUR INDUSTRIAL DEVELOPMENT PROGRAMS

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EVALUATING OUR INDUSTRIAL DEVELOPMENT PROGRAMS

Dean E. T. Grether

How does a community, area or region know whether it is expending its resources devoted to industrial development programs effectively? Can it know whether it is wasting all or part of its energies? Would it be able to do a better job? Or should a community assume that the spontaneous forces in our enterprise economy will take care of the problem anyway? (There are skeptics who think that most industrial development work takes the form of irresponsible puffing by local chambers of commerce and that these efforts are largely wasted, except as they relieve local inferiority complexes.) Almost all communities, with some notable exceptions, are ambitious, and properly so, to expand employment and economic opportunity. Are they going about things in the most appropriate manner? Are there any guides, goals, or criteria that may be set up beforehand or to judge results during and after programs in industrial development?

For over ten years now, I have enjoyed meeting with the members of the Industrial Plant Location Committee of the California State Chamber of Commerce. For many years, also, I have participated in various programs, conferences, committees, etc., in the Bay Area or statewide, dealing with problems of industrial development. Like others in this audience, also, I have engaged in some research work in this field. Perhaps my most dramatic experience was the 1949 Statewide Conference of 2,000 citizens convened in Sacramento at the request of Governor Earl Warren to review the then California situation and outlook.

About two years ago, the Alameda County New Industries Committee raised the question of how one can judge results in the field of industrial development. In fact, a letter was addressed to the Statewide Industrial Plant Location Committee for discussion. So far there has been no reply, probably because of the rather general view that "there is no answer to this question."

This general point of view reminds me of the attitude that was formerly taken, and is still widely held, with respect to the appraisal of advertising expenditures, namely that there is really no way to know beforehand or to measure the effects of advertising. Hence, a kind of gospel of taking it on faith arose and still flourishes. But buyers and users of advertising time and again have asked for and have obtained some measure of the results, and some assistance in predicting and planning for specific goals, although, perhaps, rarely in a full sense, except in the case of mail order advertising! Why not in a full sense? Because advertising at a given time is one of numerous factors influencing sales and sometimes it is not possible to isolate the impact of this single factor. Yet, often quantitative measures, or at least useful partial measures, of advertising effects have been found. But in order to get specific and useful evidence, it is necessary for a business firm, beforehand, to establish its objectives clearly, plan carefully, and make continuing checks and adjustments with evolving experience. To accomplish this, however, it is necessary to identify the specific role or responsibility of advertising or other sales promotion expenditures in the total play of factors and influences, and to set out the objectives and criteria for judging performance. Such objectives

and criteria should not consider only dollar sales results at a given time, but also relative market position in relation to past results, market share in relation to competitors, and basic trends. Thus one cannot take dollar sales or profits alone as decisive if these are lagging behind the industry or competitors, or particularly, if they depart from the basic trend in relation to potentialities.

In the field of industrial development, if one considers "sales" alone, then California as a whole has been doing extremely well. Most parts of the United States are casting covetous eyes in our direction, but is the state as a whole or any community within it, really moving forward in terms of the potentialities and basic trends, and particularly in terms of long run demands and needs? Or are we making so many short run mistakes as to be leading us toward the barren economic wastes predicted by some pessimists?

What determines the results of promotional efforts and organized programs to develop and expand industry in any given community? Clearly, many influences are at work and affect the outcome, ranging all the way from the competitive efforts and opportunities offered by other communities to the relatively spontaneous response of some types of economic activities to the expansion of population or to the establishment of new industrial plants, to the relative prosperity and outlook of the state, nation, and world -- and particularly to the basic trends in the community and the region. That is, local community economic development, like the sale of a manufactured product, is influenced by numerous interdependent factors. To recognize this, however, is not tantamount to saying either that nothing reasonable or sensible can or should be done or that local chest thumping or exhortation are in themselves enough.

In the endeavor to promote anything successfully, one must first have a good product and know its qualities and promotability. What is the product in industrial development programs? It is chiefly industrial and economic opportunity -- large or small. If it is small, then there is the likelihood that little advance planning and promotion are necessary -- the response may be expected to be relatively spontaneous. Thus where there are people, there will be opportunities to sell certain types of residentiary or home market good or services. Retail stores, service trades, restaurants, filling stations, and the like, may be expected to appear wherever there are people to spend money.

The chief problems in industrial development programs rise out of the endeavor to gain industries that will sell outside the immediate community into the larger local area, region, nation, or world. In other words, to gain industries that use the local site merely as a base of operations into the larger market, and in the process, however, pay taxes to the local community, provide jobs and payrolls, and in general, raise and stimulate the level of prosperity and standard of living.

Now it is evident, of course, why communities compete for such industries. Owners of land, established businesses, real estate operators, builders, workers, tax collectors, and many others stand to gain when a new industrial plant enters a community or when an established one expands. Some members of the community, of course, gain more than others, such as owners of strategically located land.

But please notice the word "compete," the quintessence of our enterprise system. We must assume, therefore, that industrial development programs reflect competition that is free and open between communities and within the rules of the game. That is, that the product the community has to offer -- the economic opportunities provided by location in a community -- cannot and would not be bought if it cannot stand the economic tests of free competition. In fact, there is no true product or economic opportunity if the firm cannot gain and hold business on a given location. Now this is very important and suggests clearly that whenever communities try to gain industry by such devices as tax exemptions, free land, or other forms of artificial subsidy, it is clear evidence that there is a basic weakness in the product. It is likely that the community cannot stand the test of free competition; hence it is endeavoring to lure business enterprises to make unwise choices in location. Similarly, there is a strong presumption that there is some general competitive weakness in a state or nation when it resorts to public agencies to promote or develop industries, except as the primary role of such agencies is informational and educational. My guess is that very few firms actually are seduced by artificial subsidies and unfounded and unbounded puffing. But after they reach a decision, they may, of course, accept a subsidy, if it is available. But the subsidy was not the primary reason for the locational decision. Instead, it surely must have raised flags of doubt. Contrarywise, the community might well have serious doubts about the character of enterprises, if so easily and willingly seduced.

Now, a given location offers economic opportunity for a business firm either because there are local advantages of supply (as raw materials and labor) or advantages of demand, and therefore in marketing and selling: that is, the site is the best one for getting and holding business. Sometimes, as in the case of raw materials, the exact site is almost pinpointed by the location of the deposits of the materials. Almost always, however, there is some flexibility within at least a narrow zone for locational choices. Furthermore, as time passes, the impacts of the locational factors shift as freight rates and transportation facilities change, population shifts occur, competitors make adjustments, etc. It is very likely that the great majority of industrial plants that have been in operation for a number of years could be relocated to some advantage. If there were no costs of relocation, industrial plants would be continually playing leap frog over the economic landscape. But this cannot occur -- not only are there high costs, but there are important ancillary facilities and relationships that act as roots to attach a firm more or less firmly to its established site.

The satisfactory location and operation of an industrial plant requires all or some of the following facilities: water, waste disposal (residential, business, and industrial), transportation facilities (access to highways, waterways, and railway spurs and trackage) fire and police protection, housing and schools for workers and their families, and adequate and reasonable local governmental regulations, especially zoning. Now, between communities, variations in these general community facilities may determine location, other things being equal. Otherwise, industry may absorb some of these costs itself, or take responsibility for promoting public facilities. Hence, such facilities and circumstances must be considered part of the product that the community has to offer in industrial promotion. Perhaps the only true economic role of subsidization would be to compensate an industrial firm for providing some of these facilities when

the community does not do so. Such compensatory subsidies obviously are not net subsidies. To say this, however, is far different than to argue for artificial subsidies, because such facilities in themselves should be part and parcel of the essential community services.

A new industrial plant should, and normally will, add much more to the community than it gets, otherwise a mistake in location has been made by both sides. There has been a blunder unless a new industrial plant or the expansion of an existing one, raises the level of income and the standard of living in the community. Under our free system of location and local, regional and national free trade -- such blunders will be liquidated by the forces of competition, either by closing the plants or shifting them into second best uses, after the appropriate markdowns of equities and losses to investors. And this is fortunate, indeed, because the alternative would be subsidies at the general expense of the standard of living, either through higher taxes or lower wages.

Among the many difficulties leading to the outbreaks in the Russian satellite countries are the effects and consequences of ill considered and mistaken locations of industrial plants. Hungary, Czechoslovakia, and Poland, so it is stated, are studded with Stalin's industrial white elephants -- great plants without nearby raw materials whose products are able to compete in world markets only by exploiting workers through lower wages. It is fortunate, indeed, that industrial plant location in the United States, except for certain defense industries, must stand the rigorous test of ability to compete in our great internal free trade markets. We cannot remind ourselves too often that this factor is undoubtedly the largest single influence making for our high standard of living and high prosperity.

Now, let us look again at our problem -- when are our industrial development programs well grounded, or if you wish, sound? My reply is they are such if they endeavor to sell a good product, able to compete in our local, regional, and national markets. The product, to repeat, is economic opportunity, within or outside a given community. A community does not "bring in" industry any more than parents "send" their children to college or "educate" them. Chiefly, it provides the setting and conditions for economic opportunity. Hence, the problem and task of each community is to clearly understand and try to sell its competitive economic opportunities. But these opportunities, like other products, of course, may require some packaging and special services, or if you wish, general and special community services and facilities. The task of community industrial development is first, to provide the basic community services and facilities; second, to call the opportunities in the community to the attention of prospective enterprises; and third, to assist active prospects to work out their local arrangements, if desired. Assuming that community conditions and facilities are sound, then the most important aspect of industrial development is to provide full, accurate, basic information about the community. It is for this reason that the Industrial Plant Location Committee of the California State Chamber of Commerce has sponsored the Standard Industrial Survey Summary Reports for California Communities. These reports provide reliable data on climate, transportation, industrial sites, industrial water supply, utility services and rates, governmental facilities and taxes, population and trends, employment, characteristics of the labor force, wage rates, housing, community facilities, and existing manufacturing.

A community judges the immediate response to its efforts in providing and disseminating knowledge of its opportunities in terms of inquiries (again, like much of advertising), and ultimately in terms of new plants, expansion of existing plants, and new jobs created.

I wish it were possible to drop matters here, but unfortunately something still remains. Why? Chiefly because "Politics must intrude its ugly head." (Incidentally, I have never understood the reason for the phrase, "ugly head," since most political manifestations are merely normal evidences of democracy at work.) I suspect, however, that politics, so called, is the chief reason why it is so generally held that there is no answer to our basic question of appraising industrial development programs. Since the size and character of local governmental jurisdictions, as well as rivalries, vary so amazingly and erratically, economic forces, time and time again, cannot and do not work themselves out, at least in the short run, in the presumed theoretical manner. Furthermore, communities, like business firms and individuals, have differing personalities and varying objectives -- and properly so. Hence, the product available for industrial development work may be expected to vary widely, depending upon the wishes as well as the circumstances of any single political division. Some communities will not wish certain types of industries (as heavy industry) -- hence, will not choose to develop the appropriate facilities and conditions and may erect insuperable barriers to entry. For example, I sincerely hope that Stanford's lovely acres may not eventually be studded with unsightly and poorly landscaped factories, warehouses and industrial dumps. I assume that the restrictions are such that industrial plants on the Stanford campus will look like college halls or laboratories covered with ivy and surrounded by lovely grounds and sauntering coeds!

In our democratic society, communities, like individuals, should be given reasonable freedom to work out their own ends, except as broader general objectives require some adjustments and adaptations. To mention this, however, brings us to the heart of our problem, and also to the widely accepted and approved concept of "balanced community economic development." Apparently, everyone is in favor of "balanced development" and the "balanced community," although few, if any, state exactly what is involved. Unfortunately, I have neither the time nor the will today to attempt to work out the answer. May I suggest, however, that nowadays there is no single or typical community pattern, as was true during the horse and buggy period when the farm trading center tied the town and local countryside together, and the major central markets acted as great economic coordinating centers. Rather, there are emerging in our society broad metropolitan clusters of economic activities, but no one metropolitan area or clustering probably is identical with another.

But the problem of "balance" in these emerging centers and their satellites must still be related to the specific situation, state of development, and basic trends in any given community as a whole or subcommunity, such as the San Francisco Bay Area, and the City of Berkeley within this area. It is likely that there can never be true "balance" in any single local community for very long. The issue of balance is the issue, really, of the character of the nexus between any given community and the local area, region, nation, and world.

For example, recently the Berkeley Gazette (issue of February 9th 1957) carried the extraordinarily interesting story of the "balanced" community development in San Leandro -- a truly thrilling experience in community cooperation, in developing and providing the appropriate facilities and conditions for economic opportunities. Within ten years, San Leandro has been transformed from, so it is stated, "a placid farming residential community to a bustling industrial hub." Incidentally, San Leandro took great care to see to it that it had a good product; that is, that the basic facilities were available for industrial plants. But "balance" as of today in San Leandro is not the same as it will be ten years hence, or as it was ten years ago, and cannot be determined by San Leandro alone. "Balanced community development" for any community in the San Francisco Bay Area can occur only if thinking, planning, and programming transcend the legal limits of local political boundaries. The current controversies over smog control and rapid transit punctuate this observation most dramatically. What is required ideally is that all local communities do an optimum job of internal appraisal, provision of facilities, information, and promotion -- but that they also cooperate and coordinate with and into the wider community as required. Only along these lines is it possible to optimize our local area, regional, and national standard of living. Up to a point, Berkeley, Oakland, San Leandro, and Richmond, etc., can go it alone, and should do so. Our democracy rests firmly on local individual community planning and programming, but the tremendous problems of physical design, essential to economic progress and civilized living, in metropolitan area, cannot be resolved in this manner alone, but must merge into a broader coordinated democratic effort. In such a broad and coordinated effort, local objectives, plans and promotion must be periodically adjusted and related to the general developments, trends, and needs.

In closing, I return again to my original problem: Is it possible to plan industrial development programs soundly and appraise them adequately? My answer is "Yes" at any given time, but the plans or results of one day, and especially in California, cannot be accepted for another. Consequently, there must be continual adjustment, recasting and reappraisal as in the case of business enterprises. In this process, local planning, efforts, and results must inevitably affect and be influenced by those of the contiguous communities and regions. Some portion of these efforts will represent normal, healthy, competitive rivalry. Another portion, however, must represent cooperative endeavors essential to widen and deepen the economic potentialities of all communities. When by some misfortune, this wider opportunity is not seized, then healthy community rivalry degenerates into intemperate and wasteful promotional activities. Under such conditions, the general standard of living is maintained or enhanced only because business enterprises are wiser in their locational and expansion programs than local communities in planning and promotion.

INDUSTRY AND THE COMMUNITY -- EXPERIENCES AT KITMAT

J. S. Kendrick
Aluminum Company of Canada, Limited
Kitimat, British Columbia
Canada

INDUSTRY AND THE COMMUNITY -- EXPERIENCES AT KITIMAT

J. S. Kendrick

I was asked to speak tonight on the relationships between industry and the community at Kitimat, which is the location on the northern coast of British Columbia chosen by the Aluminum Company of Canada for its newest and potentially largest aluminum smelter. I think your chairman hoped that in our experiences there might be useful parallels with some of the problems you gentlemen face in the vicinity of San Francisco Bay. Since I know nothing of this area, I think it will be best if I confine my remarks to a report of what problems industry and the community have faced, or may face, at Kitimat; what we have done about them, and how we are faring. Since problems, policies, and results are all peculiar in some measure to the circumstances of Kitimat, I must first describe those circumstances, and leave it to you to decide what portion of our experience may be relevant to your situation.

Kitimat is a town called into being by the needs of one industry -- an industry which brings in all its raw materials over distances of 1,000 to 7,000 miles, and which in 1956 sold the bulk of its production in California, thereby supplying California with a substantial part of its requirements of aluminum ingot. This should convince you, Mr. Chairman, that when I say I am happy to be here tonight, I mean it.

The industry is the smelting of aluminum, which requires more power per dollar of product than any other industrial process. Aluminum is, with some reason, called packaged power. Since the industry also uses a lot more power per employee than other industries, it is necessary to go into an area where power is of low value if the smelters are to be maintained in operation and expanded. It is rare indeed to find a large power source adjacent to extensive deposits of bauxite -- the only commercially important ore of aluminum -- so we must look for a low-cost power source within reach of cheap transportation.

A world wide search resulted in our choosing Kitimat, which is on tidewater four hundred miles north of Vancouver, within transmission distance of a very large hydro-electric site we are developing. The story of that development is worth telling, but is not a part of our subject tonight.

When we started work at Kitimat in 1951, the nearest port of call for steamers was 60 miles away -- as was the nearest post office. The nearest road and railway were 40 miles away, through a valley covered with a dense forest growth which also entirely covered the smelter and town sites. The first construction men to go ashore had to cut down enough trees to get room above high tide mark to erect a shack, before they could turn in for the night. The shack, surrounded by six foot high stumps, stayed there for some time, badly off level -- there had been five feet of snow on the ground when it was built. That was in 1951, and today there are 12,000 people in Kitimat, in a town equipped with most of the conveniences of any modern city of much larger size. There are churches, stores, a movie theatre, schools, and many other things. In 1956 nearly a thousand houses were added to the town. There is a railroad, and a deep sea port, and this year we expect the highway to reach Kitimat, incidentally

providing access to the nearest airport, thirty miles away. The smelter has been operating since 1954, and is being expanded each year. By the end of next year, we expect the Kitimat smelter to be the second largest in the world, exceeded only by our Arvida smelter in Quebec.

Of course there are many pioneering aspects still to life in Kitimat. The 1956 housing crop is all in areas that were more or less raw land a year ago, very little of which was then provided with utilities, and some of which was still under forest. These houses all now have water, sewers, and power connected up, but only rough unpaved streets and no landscaping at all. The older sections of town -- meaning two or three years old -- have paved streets, sidewalks, lawns and gardens.

The isolation of Kitimat is one of the pioneering aspects of the town. There are 3,000 automobiles, with ten miles of road to drive on (not counting residential streets). The only way out of town is by a daily train, a weekly boat service, or a sporadic seaplane service. There is a shortage of efficient personal services, and there aren't nearly enough repair men to keep all the automatic furnaces and kitchen appliances in shape. Soon after we arrived in October 1956, my wife was invited to a tea, and in the middle of the festivities there was a shattering explosion. The other guests merely steadied their cups and carried on with the conversation from the point of interruption -- because the explosion merely signified that one more of the thousands of stumps that once covered the ground was gone.

At that time there were nearly five thousand men living in construction camps and barracks in Kitimat, and the Saturday night uproar, although no more than one must expect under those circumstances, is quite impressive. In spite of all the facilities, therefore, most Kitimat residents feel that they are pioneering, and in a highly mechanized fashion they are.

Many of the problems faced by industry and the community at Kitimat are a result of the special conditions I have described. For the industry, the labour problems are by far the most pressing, and the biggest problem is training -- training green crews to the work of a highly specialized industry, training foremen who have very little experience, and training a constant flow of replacements required because of high turnover.

When the Kitimat smelter went into operation in 1954, British Columbia was in the midst of boom conditions and the first fifty permanent houses were just started. These conditions made it impossible to hire and hold married men, and many of the single ones would leave after about six months. We had to replace the wastage and at the same time expand the smelter, so that the "hard core" of long time employees was drawn on heavily to provide the foremen and other supervisors who were needed in increasing numbers. The "hard core" consists to quite an extent of immigrants of recent date -- men who had cut their ties with their home land, and come to Canada expecting to work hard and save their money, since most of them had nothing when they arrived. After 2-1/2 years of operation, the smelter working force is 29% Canadian, 26% German, 11% Portuguese, 9% Italian, 5% Greek, and the remaining 20% split among 30 other nationalities. The training problem in such circumstances needs no description.

The other big labour problem is that of housing which in a way is more of a community matter. Since there was no human habitation in the area when we moved in, every worker on construction or on operations must be housed. The single men are accommodated in barracks of various sorts, the first of which were built at great expense because of the beachhead conditions in the early days of the project. The later ones were also built at great expense -- because we found that we had to choose between keeping good men in first class accommodation and constantly replacing mediocre men in cheaper quarters.

The former is much the lesser of the two evils but is still expensive. There has never been enough housing for all the married men to bring in their families, until recently, and of course, since all the housing is new, it is all expensive.

The industry faces many problems that have nothing to do with labour, but most of these have no impact on the relationship between industry and the community. I remark in passing, though, that a considerable part of our resources in talent and in money have been devoted to the solution of complex technical problems, with a corresponding reduction of the resources we can apply to community problems.

There are many problems which are more problems of the community than of the industry, but before we turn to them, there is one problem which is of equal concern to both parties. It is a problem that is beyond the horizon now, and may never get closer.

Kitimat is expected to grow to a population of 25,000 to 30,000 people in the next five years, and the entire region is at present dependent on one industry, and may remain so. The smelting of aluminum is the *raison d'être* of the entire community, and without that industry the people would have no course open but to leave their homes and business enterprises and move away. In the present state of the industry, this is a very remote contingency -- in fact we are engaged in a continuous expansion programme to meet the needs of our customers. However, the problem is there, and must be listed with the rest.

Turning to things that are more community than industrial problems, the most important one is housing, and all the services that go with it -- water, sewers and electricity, streets and sidewalks, garbage and snow removal, and so forth. At the present time, a great many people are living as tenants or sub-tenants in dwellings that were intended for single families, some are in trailers and temporary houses left over from the early construction days, and a few are in motel accommodation (Kitimat has two motels, but no highway out of town) which is extremely expensive -- all as a consequence of the initial shortage of housing, which shortage has also led to the presence of a large number of men without families, whose disruptive influence must be taken into account.

Next to lack of housing in the list of community problems I would place the lack of shopping facilities and personal services. In the early stages of the town, there was only enough business to support one general store, with very limited stock. Under these circumstances the lack of choice of both merchandise and merchant can be galling, especially to a housewife who is used to urban comparison shopping.

After the market grew to a size where further shopping facilities were justifiable, there was a further lag due to the limitations on the capacity of Kitimat to build anything as quickly as the need grew. This led to overcrowding of the stores that did exist, which added to the housewives' irritation.

There are a lot of other local problems, but I didn't come here to make you feel sorry for us, and I think it is time we examined what we are doing about things, before you conclude that all is lost.

In 1953, a report was published on a survey of towns in Canada that depend on one industry.* The authors identified 155 such towns in Canada, with a population of 189,000 people in all. They varied in size from a population of 10 people to 11,000. The oldest was established in 1862, and the newest were still in the planning stage. They were found in almost all parts of Canada including the Arctic. 81 of the communities depended on mining and smelting, 27 on pulp and paper, 15 on logging and lumbering, and smaller numbers on hydro-electric generation, national parks, and a scattering of other enterprises, including one community dedicated to the generation of atomic energy.

Many of the communities had originally been located on sites too restricted for the present population, and nearly all had one or more satellite "shack-towns" which had grown up beyond the townsite limits.

The parallels with Kitimat are limited -- for one thing, the largest of the towns in the study is smaller than Kitimat at its present population, and for another, although they are all communities depending on one enterprise, in a great many cases the enterprise does not depend on one community, but draws on other settlements in the vicinity. Nevertheless, some of the findings are of great interest, and there are enough similarities to warrant some comparisons.

The problems we face at Kitimat are mostly physical and economic ones, and as far as the industry is concerned, the chief objective is to attract good workmen from the comforts of larger cities in the south, and to offset the effects of isolation and change, which affect the women of the town more than the men.

The record of the towns studied during the survey mentioned above is excellent in this regard. Except among the newest communities, the schools are far better than is normal for the size of the community, hospital facilities are better, and rents are much cheaper -- almost ridiculously cheap. There are a great many free services, and others are operated at a loss by the employer. The number of communities claiming to be "the best-planned town in Canada" is large, and the execution of the town planning function is much better than in ordinary towns, partly because single ownership of land eases planning problems a lot. Churches are heavily subsidized, and organized recreation is developed to an almost fabulous extent. Golf courses, hotels, parks, are all show places, although some are, like the breast pocket handkerchief, more for show than for blow.

* Single Enterprise Communities in Canada - Institute of Local Government, Queen's University.

All this has been accomplished by means of heavy subsidies by the employer, and in many cases by direct action. To keep good people, good facilities are needed; no one else can or will provide them, therefore the Company must -- so runs the argument. The result is that the extent of company ownership is far greater than in towns not dependent on one industry. It is not uncommon for the company to own most or all of the houses, to supply and maintain municipal services, and to pay for all the elaborate recreation facilities. Company-operated stores are less common and company fire departments appear occasionally. Company operated police forces are almost unknown.

A lot of the towns in the survey had no elected local government -- in some cases because the company owned all the land, and in others because municipal services were supplied by the company, and there was no job for a local government to do. In some towns which had an elected local government the form was there but not the substance, since the Company could virtually nominate the town council by reason of its land ownership. Another fact shown by the survey -- and to me this is the key to the whole question of the relationship between industry and the community in places such as Kitimat -- was that in the towns without local government, or with a captive local government, there was no significant movement afoot to obtain the right to elect municipal governments on a democratic basis. Apparently the ubiquity of the company, which is resented, is not too high a price to pay for the resulting benefits, which are denied. A feeling of "let the company do it" and a sense of wrong if there is any community need not paid for by the employer is reported in many cases.

I have reported the findings of this survey of single enterprise communities extensively, because most of the towns surveyed had faced problems similar to those at Kitimat, and had solved them; but in the process they had created a whole new set of social and economic problems. The survey was not completed until after our basic decisions for the development of Kitimat had been taken, but it reinforces our feeling that not all the ills of the infant Kitimat could or should be cured solely by the application of large doses of money.

It is time now to discuss the policies that have been followed at Kitimat, and the progress that has been made. The first step was the choice of a site. The requirements of the industry fixed the locality to a point on tidewater, within transmission-line range of the Kemano power site. The best location meeting these requirements was at the head of Douglas Channel, where there was a wide valley leading across country to the Skeena River and the railway that runs along its banks. This was the original home of the Kitimat Indian tribe, who had moved about fifty years before to a location a few miles away. A white settlement, known as Kitimat, had been established before 1900, but had never prospered, and had finally disappeared.

The choice of site having been made, the next step was to call in an able town planning group to advise on the layout of the town. At the same time our own designers were planning the industrial installations and the port, but that need not concern us to-night. The planners were retained and paid by our company, since there was no one else to do it, and they produced a preliminary plan for a city that could be expanded to house 50,000 people. In 1953, the municipality was incorporated, and local government was set up by election. At that time there were no permanent houses in

Kitimat, and in order to qualify people for municipal office we had to sell parcels of land in a convenient swamp to some of the few permanent residents. This is a time honoured device, and there are some single-enterprise communities that have never progressed beyond that stage. Most of the members of the first town council were our employees, but they acted as trustees for the future residents of the town rather than as our agents. The municipal government could not operate until it had built up a staff, and until it had raised some tax money to get into business. There were some essentials that had to be started immediately -- a bridge across the river, a primary road to the residential area, waterworks, and sewers were some of the items. Since the municipal government was not able to accomplish these things in time, the company undertook them. You can see how easy it is to get drawn into the paternal position that the employer occupies in many isolated communities. We provided these things, but with the knowledge of both the provincial and the embryo municipal governments, and with the intention of selling the works to the town. A year or so later, the sale was made, after being approved by the electorate at Kitimat in a referendum. The money to pay for these things was borrowed on the open market. The sale of the municipal debentures of Kitimat was a rather remarkable piece of financing, since several million dollars worth were sold at a time when there were probably not over a hundred property owners in the town. They were sold without a guarantee by the Aluminum Company of Canada, or by anyone else, but of course the reason was that the smelter was within the corporate limits of the town, and was taxable by the town.

At present, because of the tax revenues from the smelter, the town government is able to, and does, fill almost all the normal functions of a town government, without ex gratia aid from the company. The company pays 90% of all the property taxes in town, since it owns 90% of the taxable property. In return for this the company gets one vote, as a property owner, in town elections. The actual influence of the company in town affairs is more than our relative voting strength but less than our relative tax payments, which gives you wide limits within which to choose! At present the reeve (equivalent in position and duties to a mayor) and five of the six councillors are company employees. The one non-employee is the operator of the local builders' supply firm. The reeve is the editor of the plant paper. Three councillors are in supervisory or engineering positions, and two are active in union affairs. At the last municipal election, two company employees and the one nonemployee were elected as councillors, out of a field of eight which included six company employees. I am convinced that each councillor votes in council in accordance with his personal beliefs and his own judgment of what is best for the community. As evidence I cite the fact that in cases where there is a divided vote in a council meeting, the two so-called "union" members often vote opposite ways, as do the other councillors.

The importance of a town government which is independent of domination by the employer is recognized by most people who have had experience in single-enterprise communities, including the employers. A high degree of this independence has been attained at Kitimat, and we hope that it will continue. The same is true of the elected School Board, which has done a remarkable job of providing school facilities under very difficult circumstances.

This independence in local government has been attained in part by our approach to another problem -- that of housing. One of the most serious

difficulties in single enterprise communities is the ownership of houses by the industry. The combined role of employer and landlord is a difficult one for the industry, and the combined role of employee and tenant can be difficult for the occupant. The results for the employer are low rents, excessive maintenance costs, and bad relations with employees. The low rents discourage other landlords from moving in, and discourage employees from buying or building houses. If forced by a shortage of "company" housing to fend for themselves, the employees feel wronged.

It is obvious that if employees owned their own homes, these difficulties could be avoided, but it is not quite so obvious how this happy situation can be reached. There are three difficulties in an isolated place like Kitimat. The first is that building costs are much higher than in more settled areas. The second is that, even at normal present day costs, new housing in most places is beyond the financial reach of quite a segment of the employees in an industrial organization. The third is that a great many employees, even some who ultimately stay for many years, feel that they are only making a temporary move, and that they won't stay very long in Kitimat. This feeling may be less prevalent among the immigrant population.

We have tried to overcome these difficulties by a housing assistance scheme which offers the employees enough guarantees and subsidies to make it attractive for them to buy houses, but leaves them with most of the normal incentives and responsibilities of the home owner. We sold land to a number of speculative builders, who prepared their own plans and specifications and built the houses, then offered them for sale. The builders arranged for first mortgage money, under the provisions of the National Housing Act, which required them to meet the building standards under that Act.

Other than the sale of the land, our deal is with our employees. To each employee buying a house, we advance money on the security of a second mortgage, in an amount sufficient to reduce his down payment to about 5% of the cost of the house. This second mortgage is repayable over a period of ten years, but during that time we pay the employee a monthly subsidy that in most cases nearly covers the cost of paying off the second mortgage. We also give the employee a placement option. At any time during the ten year period, by vacating the house he can require us to buy it from him at cost less a low depreciation allowance. If he prefers, he is free to sell the house on the open market at any time, but in that case the subsidy ceases, and the balance of the second mortgage becomes due.

This arrangement relieves the employee of some of the risks of ownership, but leaves him with some of the responsibilities. He is responsible for maintenance of the house, and for taxes. He is guaranteed against loss of his original capital, but if he wants to do better than that he is on his own. He also is entitled as a property owner to vote on municipal matters, and to run for public office. This is what gives the municipal government its vitality and its independence.

A similar scheme is in effect for employees who wish to build their own houses, either by contract or by "sweat equity." Not all of the houses are occupied by our employees, of course, and the builders are free to sell houses on the open market. We estimate that one third of the wage earners at Kitimat work for employers other than our company. Some of them own

houses, and there are also 230 apartments built by private investors and largely occupied by people outside the main industrial enterprise.

The Aluminum Company of Canada Limited owns no permanent houses at Kitimat. We do own about six hundred temporary houses, mostly of very small size. Of this number two hundred are fairly substantially built. We also rent two hundred spaces to trailer owners. This temporary housing is a product of early construction days, and most of it is still occupied by construction workers. Some of it will undoubtedly survive for quite a few years.

The ownership of temporary housing does bring us into the landlord-employer dilemma, and we have been drawn into the position of renting at a loss. We are not so much worried about the loss on rents as we are about the habit of complete dependence that can arise. The demands for maintenance service can be almost ridiculous at times, and because the major employer owns the houses, instant action is expected. It is only fair to say that because of the temporary nature of the houses there are a lot of legitimate demands for service that aren't always possible to attend to immediately. We have tried to insulate the smelter from the consequences by setting up our property department separate from the works, with its manager reporting not to the works manager but to the general management of the company.

Another policy we have adopted is to avoid payroll deductions for purposes of rent. The payroll deduction method is easy and cheap to administer, and from the point of view of the employee it is a lot less trouble, but it relieves the employee of one more responsibility that he should have -- paying his own way -- and relieves the employer of one more duty he should have -- collecting his bills. Mortgage repayments by people who buy houses must be handled by payroll deduction, so in the case of employees who buy houses we cannot avoid the situation.

Among community problems, the one next in importance to housing is commercial development. This problem at Kitimat was accentuated by the remoteness of the site when we first went in. The residents had no access to any stores in neighbouring communities, and their two choices were the local general store mentioned earlier, operating out of very cramped quarters in the basement of one of the camp buildings, or the mail order catalogue. If they chose the latter, they still had to get their parcels out of the post office -- which occupied equally cramped quarters in another part of the same basement.

We were fortunate in leasing the store to the Hudsons Bay Company whose name has been associated in Canada with business pioneering for nearly three hundred years, starting with the fur trade it still carries on, and expanding into many enterprises, including a chain of department stores. I think the name of the "Bay", as it is called, did a lot to help Kitimat to get over the closed camp complex and start to feel like a normal town.

As time went on, we made arrangements for more shopping facilities. In every case, we tried to keep out of the picture as much as possible. When a merchant could put up his own premises, we just sold him the land. Many retailers are not in the habit of owning premises, and many do not have space requirements that warrant a separate building, so we had to build some store buildings and lease space to private operators. In no case do we operate a store ourselves. We are fortunate that Kitimat is now big

enough to support competitive stores in many lines, which gives the shopper some choice and takes the monopoly curse off the merchant.

Recreation is becoming a subject of increasing importance at Kitimat. The lack of recreational facilities has so far been more or less offset by the natural resources of the area. Fishing, hunting, hiking, and picnics are easy to arrange. In the winter my children use a ski hill that starts from our back door, and when it is cold they skate on outdoor rinks flooded by the fire department. A few weeks ago it turned mild, and my 12 year old son went fishing for a change with two other boys. They came back with a 25 pound salmon. A few days later it turned colder, and they resumed their hockey games.

Of course, there are a lot of people who don't care for outdoor sports, and there is a lot of weather that makes the outdoors unattractive. There are a great many volunteer organizations that have sprung up partly as a result of our keeping in the background. There is a golf club (without a course as yet) a yacht club (average length of yachts is about 14 feet) a curling club, and a rod and gun club. There are quite a few lodges and service clubs, there is a Y.M.C.A., and a lot of hobby and craft clubs. Many of these groups operate from unpretentious quarters that they have built for themselves. The Y.M.C.A. operates a recreation building we built as a part of our camp construction. We have helped many of the groups, but did not organize or initiate any of them. I think they are more vigorous and more popular than if we had.

The churches play quite a part in providing recreation, especially among the young people of the town, but this is only a small part of the work of the churches, naturally. The position of churches in a single-enterprise town is in some ways rather difficult, and Kitimat is no exception.

The population is heavily weighted towards youth, and there are almost no older people to provide leadership and example. There is a great deal of social and recreational activity organized by others, and the smelter, which operates continuously, has to keep going on Sundays, with the result that the whole congregation can never turn out at once. Opportunities for charitable duties are limited. There are few unemployed, no aged or indigent people, a low level of sickness, and very few deaths -- which means that the people do not often see the clergyman performing his customary function of a helper in trouble. The group that probably has the most troubles is the immigrant population, and here the clergyman has the language barrier to surmount. It doesn't take too long for most of the newcomers to learn enough English to follow simple directions and find their way around town. In fact, remembering my own struggles with French, I am amazed at the speed with which a basic language understanding builds up. This basic English, though it serves well enough for a while, is more suited to daily use than to gaining understanding, expressing sympathy, and assisting in personal troubles which may be quite intangible.

In the face of these real difficulties, the churches in Kitimat are gaining in influence and in strength, and are filling a place that could not possibly be filled by the employer. I am speaking purely of their place in the community, which is only a corollary of their main purpose -- the worship of God.

Most people who came to Kitimat experienced a complete change of environment. The Canadians mostly have urban or farm backgrounds rather than "small town", and others have a variety of backgrounds in many countries vastly different to Canada. No amount of imitative development can make Kitimat a big city until it is big, and the Italian cheeses and salt herrings which the groceries feature among many other exotic foods do not make Kitimat like Tuscany or Scandinavia. Therefore confusion, misunderstanding, and homesickness can arise, and the church is the one organization that can deal with these things without the stigma of company domination. Of course, we have helped the various church denominations, but only in incidental ways.

Although the church, the municipal government, and the ownership of property do contribute to make our employees socially independent of the employer, the economic dependence is still there. There would be no Kitimat if we had not decided to smelt aluminum there, and there would be virtually no Kitimat left without the industry. I mentioned this earlier as a problem beyond the horizon, but we have given it some thought. One of the best things that could happen would be the establishment of other industries, and one of these -- a pulp and paper mill -- is being actively investigated. There is reason to hope that this or other industries will come some day. We are also trying to build up the resources of Kitimat as a port and trading centre for the development we feel is coming in northern British Columbia.

Even if these ventures all come to fruition, aluminum smelting will remain the backbone of the Kitimat economy, as it is in most places we operate. Therefore, the strength of our industry is an important to the community as to ourselves. We have developed sources of raw materials in many parts of the world, and markets almost everywhere. We have several million horsepower in hydro electric plants we own, and potential sites capable of developing more. Over and above our material resources, we have a research group which is constantly at work improving our product and widening our markets. From these investments we have built up an organization that we think is capable of carrying the Kitimat venture through its youthful years to a long and useful mature life.

At the outset, I said that I would tell you something of our problems, of what we have done about them, and how we are faring. I have concentrated mostly on the first two, although I have given you some idea of the last. What follows is my own opinion, and only partly provable.

Kitimat has an independent and almost self-sufficient local government which is largely the achievement of the local citizens, with our help. The town plan is outstanding, and is held in great respect by the residents, which means that the chances of its being followed out are good. The housing problem is not behind us, but progress to date is good.

There is enough housing of some sort to accommodate all the married men in Kitimat. More is needed, because as a result of past shortages of housing, only 42% of the smelter force is married. This should build up gradually to 75 or 80%.

Right now a shortage of mortgage money in Canada is a threat to continued development, but we think a temporary one. The problem of commercial facilities is almost solved. The Hudsons Bay Company now has a

permanent department store, there are a hotel and a newspaper, and quite a few service industries, all operating independently out of their own premises. Two of the four banks in town expect to build this year, and one of the two supermarkets has its own building. The rest of the commercial enterprises are tenants, some in the buildings of the people mentioned above, but mainly in buildings we have built to get things going. Among the foreign-born population, the language and cultural barriers are being gradually broken down, and increasing numbers are attaining Canadian citizenship.

In order to get this progress we have accepted delays in the solution of our immediate problems including the problem of labour turnover. If you recall the survey of single-enterprise communities I mentioned, you will see that we have done this in order to avoid the longer range social problems that result from the employer filling all community needs.

We went to Kitimat because of its strategic location in respect of hydro-electric energy and transportation, and we knew we would have to live for a long time with the problems of remoteness in order to gain the advantages of the location.

These advantages are outstanding over the long range, but to attain them we must survive the short-range problems. I think the Kitimat venture could only be undertaken by a group with substantial resources and experience, which we have built up over many years, and in many parts of the world. To quite an extent, our strength lies in our investments, but equally our investment is in strength.