"Tell me something about yourself, and the country you came from," said the Scarecrow,... So she told him all about Kansas, and how gray everything was there, and how the cyclone had carried her to this queer land of Oz.

"The Scarecrow listened carefully, and said, 'I cannot understand why you should wish to leave this beautiful country and go back to the dry, gray place you call Kansas.'

"That is because you have no brains,... No matter how dreary and gray our homes are, we people of flesh and blood would rather live there than in any other country... There is no place like home."

"The Scarecrow sighed.

"Of course I cannot understand it,... If your heads were stuffed with straw, like mine, you would probably all live in the beautiful places, and then Kansas would have no people at all. It is fortunate for Kansas that you have brains.""

-FRANK BAUM

In discussing the potential development of non-farm opportunities in southern Iowa (or in any area of technological dislocation) it is vital that we understand the forces at work before we can make any policy recommendations with regard to facilitating or forestalling the underlying adjustment path. Most people interested in this problem seem to adopt one of two points of view. Both, I think, are seriously incomplete with regard to the relevant factors considered. In the first part of the paper each of the prevailing concepts will be examined critically, with consideration given to their combination as separate parts of a more general theory of regional economic development. Next, the prospective trends for non-farm activity in southern Iowa, assuming that nothing is done in the area, will be discussed in light of this unorthodox view of agricultural adjustment. Finally, the possibility of altering existing trends and the appropriateness of alternative development policies will be re-examined.

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Move the People Out

The obvious manifestation of rapidly developing technology in agriculture is too many people on farms. Unfortunately, many of the conservative farm leaders and much of the economics profession sees the solution to this problem largely in terms of eradicating the overt symptom. The situation seems quite clear. Substantial numbers of workers could be removed from agriculture without lowering farm output. If these people were put to work in some other industry, total national output could be increased. The answer is simple - move the people out as fast as possible to prevent further resource waste. This policy recommendation is tempered by only two subsidiary considerations; (1) a recognition of the fact that the rate of adjustment might have to be slowed down somewhat in order to avoid serious social and psychological dislocation trauma, and (2) a related hope that perhaps some of the needed occupational reallocation can be accomplished with little geographic reallocation via industrial development in rural areas.

What the adherents of out-migration fail to recognize is that more than increased efficiency in the allocation of resources is involved. First of all there are the social and psychological dislocations alluded to above. More important in the present context, however, are the economic costs involved in the achievement of resource adjustment. It is not enough merely to point out, as was done in one of the earlier papers in this series, the amount by which total farm output and average farm income would be increased through reorganization of agriculture in a particular area via larger farm size, increased mechanization and fewer farm workers. Where the excess population is to go and how their needs are to be met must be taken into account. The most obvious economic factor is simply the cost of transferring the people and their belongings. Less obvious is the effect on the economic functioning of the areas to which they migrate and on the non-farm sectors of the area from which they emanate.

Perhaps one of the most important effects of rural-urban migration is its effect on the per capita costs of providing local public services. It is not surprising that the critical problems of financing schools are felt most severely in the mushrooming suburban areas of major cities and in the rural areas faced with declining population. Some work has been done on the relationship of per capita costs of local government services and population served. Probably the most extensive work has been done by Werner Hirsch of Washington University in connection with the St. Louis Metropolitan Study. Here it was found that for many services the least-cost point was found somewhere between 60,000 and 150,000 population. These findings have also been confirmed in "An Evaluation of Iowa County Government," by Donald Boles and Herbert Cook of Iowa.

State College. Thus, much of the population reshuffling occasioned by agricultural adjustment may be driving local governments into size brackets further away from the optimum. It is conceivable that migration could work toward more optimum size units, of course, or that rising costs in the rural areas could be forestalled through integration of functions on a multi-county basis. But this is not the point. The important thing is that the negative (positive) effects on the cost functions for local governmental functions must be considered explicitly and subtracted (added) to the efficiency gains from the reallocation of the labor force itself. Moreover, it seems fairly apparent that the natural direction of movement is away from optimum size both in suburbia and rural trading-center communities. And even where the population trend is toward optimum size the question of the time rate of adjustment is relevant. Even in this latter case costs might rise sharply in the short-run. A somewhat separate problem for rural areas which too was pointed out in an earlier paper is the rising proportion of both oldsters and children through selective out-migration of young adults,2/ thus further confounding the fiscal problems of local government.

A rapidly shifting population also influences the operation of the private sector of the economy. In the cities one has to account for the economies or diseconomies of scale which may come out of a rising population and the external economies or diseconomies arising out of a more fully articulated economic structure. While these forces probably work in a positive direction the costs of increasing urban congestion cannot be ignored, again, particularly when the speed of adjustment is rapid. Moreover, in the case of private institutional facilities like churches, parks and recreational installations, at least the short-run effect is one of considerable overtaxing with attendant high-cost operation. In rural areas, on the other hand, these same kinds of facilities are likely to be called upon to bear the costs of an increasing degree of excess capacity. Trade and service facilities too are likely to undergo the same fate.

The mere existence of continued heavy out-migration from the farms and small towns is, of course, not conclusive evidence that this is the most efficacious means of achieving adjustment. First of all, many of the costs involved in migration are not borne by the migrants, but by people in the areas sending and receiving them. Also, even the bearing of the direct costs of moving voluntarily does not mean that adjustment could not be made by these people at lower cost - it just shows that it cannot be done under present circumstances. Finally, for those concerned with migration-some think it's too low; some too high - it is important to realize that migration is not an operational variable. You are not likely to either induce or inhibit someone's moving by simply telling him he should or should not take such action. The movement of people can be influenced, in the last analysis, probably only by changing the relative profit abilities, including an imputation for non-monetary factors.

If we take leave of the economists, for a moment, and go out to gauge grassroots sentiment with regard to "the farm problem" we find that this state like most others is filled from one end to the other with local boosters and development personnel working to bring industry to "our town". A good part of the rationale behind this movement is the prevention of the necessity for "our best young people to have to move away to find opportunity." Preserving the small town as part of the social fibre of the American way of life is another oft cited reason. I am afraid, however, that economic self-interest has something to do with this feeling too. An analysis of the forces underlying regional economic development would suggest that operators of decreasing cost industries (those that depend heavily on volume to attain low cost operation) would fill the roster of civic leaders; people like bankers, publishers, merchants, undertakers, and building contractors. Likely to be absent from the list are manufacturers, retired farmers, the mailman and schoolteacher, and strangely enough, the educated young people whose future is being protected. Among my students here I have found only little aversion to Iowa, but virtually no interest in whether or not their future home is in the state or not. I leave to you gentlemen who know rural Iowa better than I do, whether or not my other observations seem valid.

Perhaps the most disturbing part of this conception of a solution to the adjustment problem is the needless disillusion to which many conscientious, public spirited people will almost certainly be subjected. While a sympathetic attitude is probably necessary for industrial expansion in a relatively underdeveloped region, it is hardly a sufficient condition. Natural resources, location and existing technology and industrial complimentarity do set limits to the possible expansion. In other words, establishing the projected future outmigration under existing trends as the goal for needed new industrial job opportunities, carries with it the naive belief that any area can accomplish anything it wants to if only people will think the right thoughts and advertise them enough, without giving any regard to the economic principles of industrial location.

One would have a hard time convincing the local boosters in California that they really do not need any new industry because they already have a net influx of population. Even for a group with a vested interest in growth the only rational goal is simply as much growth as can be obtained. The policy implications, at least in this specific regard, are identical for projected outmigration of 5,000, 50,000, 500,000 or zero. Moreover, while somewhat debatable, I do not believe that the movement of industry is much more of an operational variable than the movement of people. If an area wants more industry, for the most part it will simply have to improve its attractiveness as a production location. And even here it must be realized that there are
limits to development. I am skeptical about the effects of area promotion in itself, beyond its function of increasing the amount of information which business firms have about different locations. I cannot believe that any thinking person can believe that telling business firms "What wonderful people Iowans are," serves any useful purpose. Corporate executives get 48 - now 49 - such messages every year.

The promulgators of small-town industrial development are not, of course, completely insensitive to the facts of economic reality. They are at least enough aware of them to be suspicious of the idea of attracting industry on the basis of special inducements. It is certainly possible that through direct subsidization a firm may be permitted to move from a less to a more efficient location. However, acceptors of subsidies are not hard to find and the problem of separating the sheep from the goats is a real one, with the attendant risk of importing a future employment security problem come the next business recession, or even before. In short, one must always realize that it is possible, through inducements, to get the wrong industry in the wrong place. This does the firm, the area, and our national economic interest little good. I am happy to say that I do not think that community advertising is likely to produce such aberrations. One of the fortunate things for the world is that area promotion is a largely unsuccessful process.

Basically, the main shortcoming of rural industrial development as a single solution to the agricultural adjustment problem is its failure to come to grips with the role of resource mobility - geographically and vocationally - as one of the main forces behind the economic development of the Western World in general, and the United States in particular. Reflect for a moment on the consequences for our national income of a law which provided that every individual must live out his life in the county of his birth unless he could find someone in the outside world to trade places. Also, the mere existence of successful development programs in particular Iowa communities does not conclusively demonstrate that similar success could be had with a similar program in every community. Such a development might largely serve only to distribute more evenly that amount of new industry that would have come to Iowa anyway.

The foregoing analysis does not seem to provide a very rosy picture for economic development in Iowa, and especially in southern Iowa. There certainly are, however, industries which could locate successfully in the region and, moreover, there are ways in which the frictions of out-migration can be reduced. These will be discussed later, but first it would seem advisable to formulate a general criteria for regional economic development out of the two partial theories we have just discussed.
A More General Concept of Regional Development

The basic feature of improved technology which is of interest here, is that it makes possible the production of a greater total product out of any given supply of resources. However, in order to realize these potential benefits it is generally necessary to shift factors of production not only between industries, but typically between locations as well. In the development of neoclassical economic theory, the economic system was viewed as being spaceless and hence, the cost of transferring resources was largely ignored. Herein lies much of the mischief underlying both professional and lay thinking on the question of agricultural adjustment. On the one hand, there are the "efficiency" adherents who advocate maximizing efficiency gains, paying little or no heed to resource transfer costs. On the other hand, the promulgators of "population conservation" seem to seek only a minimization of transfer costs. For them, internal and external economies and the principles of industrial location appear as a footnote.

If we accept the maximum exploitation of technological possibilities, or more simply the maximization of social product, as the appropriate adjustment to technological change, then it would seem to follow that what should be maximized is the excess of efficiency gains over transfer costs. This is likely to produce a different pattern of adjustment than either maximizing the former or minimizing the latter component. Methodologically, there is nothing to prevent the inclusion of non-economic costs (and perhaps, benefits) into the analysis, but here I will confine myself primarily to the economic variables.

Thus, there are two possible ways to achieve adjustment to technological change, population mobility, or out-migration from areas of technological obsolescence, and capital mobility, or industrial dispersion into areas of surplus labor. Just as important as the recognition of both alternatives, is the realization that within limits they are substitutable one for the other. These limits would be a function of:

1. Moving costs for redundant farm workers, their families and belongings
2. Moving costs of industrial equipment and key personnel to rural areas, where applicable
3. Effects of increasing population in urban areas and decreasing population in rural areas on:
   a. Economies or diseconomies of scale for particular activities
   b. External economies or diseconomies for particular activities
   c. Obsolescence of public and private fixed capital in rural areas
4. Regional differences in natural resource endowment
5. Regional differences in natural rates of population increase and age distribution
6. Differences in the spatial orientation of each of the regions involved to the rest of the economy.

What this conception amounts to is simply the idea that with no changes in the economic, cultural, political, etc. environment, there is some appropriate amount of population out-migration and industrial development for any area which would maximize the excess of efficiency gains over transfer costs. There are three important qualifications which should be made to this general idea. First, depending on where the out-migrants went, the occupations they assumed, the kinds of industries established in rural areas, and where such industries came from (or might have gone), the appropriate balance between the two kinds of adjustment would be altered. Second, the framework developed above implies that the excess of efficiency gains over transfer losses is being maximized for the national economy and where our institutions inhibit the diffusion of such gains, conflicts between national and regional interests can arise. Third, the appropriate balance between population and capital mobility would be affected by the time rate of adjustment. The cost functions for municipal services, for example, may well be more sensitive to the rate of population increase or decrease than to its absolute level. Also, before policy can be finally decided the non-economic costs and benefits of resource transferance would have to be considered.

Suppose that the implied equilibrium rate was unsatisfactory to the residents of an area? Within limits, the extent of which would be determined by the six factors listed above, it would be possible for them to substitute one kind of adjustment for another by making various changes in their environment. For example, suppose that the current situation implies more out-migration than deemed desirable. To the extent that the area can increase its comparative advantage as a production location over other areas, out-migration can be stemmed. An important concomitant of such a program would be to increase efficiency gains, in general. If economic analysis has any meaning at all, we certainly should not be surprised to come out with this kind of result, namely that only those regional industrial development programs which contribute to national economic growth are likely to be successful. As social scientists and educators we have a responsibility to inhibit other kinds of development programs - although as pointed out earlier they are not likely to meet with much success anyway.

If existing trends imply more industrialization than desirable, greater out-migration can be accomplished, again within limits. But a program aimed at such an objective is likely to be successful only through such techniques
as better education of rural people as to available alternatives and planned relocation, in short, techniques which have the effect of lowering transfer costs in general, and thus which are also consistent with national economic aims.

In the remaining part of the paper I would like to discuss what appears to be likely future course of adjustment for southern Iowa given its present environment, the possibilities for substitution of one kind of adjustment for another, and a discussion of specific development and adjustment techniques necessary to permit such substitution.

Current Trends in Southern Iowa and Possibilities for Altering Them

In terms of the foregoing analysis the existing pattern of adjustment in southern Iowa is fairly obvious. Virtually all of the adjustment has taken place by way of population mobility, or out-migration. Manufacturing employment, for example, has actually decreased by about nine percent from 1954 to 1958 and seven percent from 1947 to 1958 in the 10 counties in the area.\footnote{Clark C. Bloom and Clifford M. Baumback, "Non-Agriculture Industries and Business in Southern Iowa", Table 2.} So far as the near future is concerned, analysis of recent population and employment trends in an overlapping region points to a release of 7,600 farm workers together with an increase of only 2,500 non-farm jobs between 1950 and 1965. Together with a growth in the labor force of 17,800 this points to an out-migration of about 23,000 workers over the 15-year period.

Given a desire to stem this tide of out-migration, is there any real hope of substituting some amount of capital inflow as at least a partial substitute for human outflow, consistent with the general principle of maintaining the excess of efficiency gains over transfer costs being realized through the present pattern of adjustment? Earlier, an attempt was made to show that if substitution in adjustment cannot be accomplished under such a condition it probably cannot, and perhaps should not, be accomplished at all.

Let us take a look at what the area has to work with. The most obvious problem is its location itself. For a very large segment of American industry, southern Iowa would not be a tenable location. This would be true, in general, of most of the metal processing and fabrication industries. For most such products, importation of raw materials from and backhaul of finished products to the east would be involved. Thus, only special non-transport cost considerations could bring such industry to the area. More will be said about them below.

A brief look at rates and availability of power suggests that this area at best enjoys no particular advantage over other parts of Iowa and states to the east and a considerable disadvantage with respect to public power areas. In addi-
tion, water seems to be just as much of a problem in the area as it is in most of the rest of Iowa, thus ruling out another set of prospects.

While reliable information is rather sparse, it would seem that wage rates are somewhat lower in southern Iowa than in the rest of the state and, more importantly, than in states with more favored transport cost locations. However, it is possible that states south of Iowa may have still lower wages without an appreciable difference in transport cost disadvantage. This is a point that bears investigation. Moreover, the extent of the low wage area is probably not large enough to support an industrial complex with the same degree of industrial complimentarity that it has been possible to create in parts of the south. Finally, the long union tradition in southern Iowa stemming from the historic importance of the mining and railroad industries would tend to discourage firms for whom this was an important consideration and it might give rise to some reluctance of people in the area to sell themselves as, "The Arkansas of the North."

Most local development programs take the form of attempts to induce existing business firms presently located elsewhere to move their operations, or establish a branch, in the locality in question. That there are industries located elsewhere which would be better located in southern Iowa I think is true. Southern Iowa should attempt to attract them. The most effective means for doing this, I think, is the dissemination of information about costs and availability of factors of production in an attractive straightforward manner. The glowing descriptions, extensive pictures, and three color brochures should not be expected to make much impact. I have a strong bias which leads me to suspect that you sell locations the way you sell pig iron; not toothpaste.

As implied above the most likely industrial recruits from the outside world are processors of agricultural raw materials and producers of commodities for the west central regional market, particularly for a farm market, and in many instances producers of bulky products not subject to extensive economies of scale in their production. The so-called "footloose" or high value-to-bulk-ratio commodities are another possibility because of their transport cost insensitivity. I suspect these may be something of a "will-of-the-wisp" however, being more likely of attraction by the external economies of major metropolitan centers.

In the light of these considerations it should be emphasized that only very modest results should be expected from direct attraction of industry, both because of the factors listed above and because of the high cost sensitivity of going concerns, especially large ones. This was pointed out by George

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Ellis of the Federal Reserve Bank of Boston in a study of forces influencing industrial location. This cost sensitivity is especially applicable to branch plant establishment of major national concerns. Another factor of particular relevance in this respect is that southern Iowa is probably not a particularly effective absorber of new industry. What I have in mind is the indirect, or multiplier effects of added employment. For example, say a new factory employing 100 workers locates in a community. These workers will increase the demand for, and hence employment, in retail and service facilities. This will tend to boost employment of wholesalers and perhaps local manufacturers. These secondary employment increases will further boost the demand for retail and service establishments and so on. Thus, the resultant employment increase will be some multiple of the initial one. But in areas like southern Iowa the multiplier effect is relatively low due to the large leakage via purchases outside the area; in this case much of the drain probably funnels through Des Moines.

The last few paragraphs probably have not made the grim picture portrayed earlier in this paper seem much brighter. But there are other avenues besides plant relocation for developing non-farm opportunities; perhaps they are less spectacular, but they are also more susceptible to successful exploitation. The first of these is suggested by the discussion of the low multiplier in southern Iowa, namely producers of import substitutes. It seems likely that in spite of the area's low income that a larger volume of trade and service activity could be supported. There is more involved, however, than simply pointing out this potential to prospective and existing merchants. Shopping habits of area residents have to be reoriented. This requires conversion to larger units with greater sales per employee, provision of off-street parking, and the investment of both public and private funds in refurbishing business districts. Such investment, like all investment, is subject to risk; it may prove ineffective. But in this instance the risks do not appear excessively large, at least on the surface, since even without future industrial expansion a somewhat larger sales volume seems capable of being supported. Also, spontaneous employment increases in trade are just as effective as factory jobs, and they will increase the effectiveness of subsequent enlargement of non-farm opportunities. The possibility of rechanneling some funds currently going into planned industrial districts into trading area development is at least worthy of consideration.

Finally, probably the most promising and least spectacular prospect of all is the development of brand new industry by people presently located in the area. The risks attendant to a new enterprise are ordinarily so great that they will not be undertaken unless the prospective return on investment is quite large. In such a context small differences in production costs do not loom very large,
and thus, to a considerable extent new firms tend to locate at the site of the entrepreneur. People with ideas in southern Iowa should not be overlooked. They are the surest of all to locate in the area if their business can be launched at all. Basically, what is needed here is a willingness of community leadership to become aware of such possibilities and to aid in finding suitable sites, workers and financing. Another thing which is needed is a commercial banking industry which is aware of its function as being something more than a storehouse for cash, and an effective enough mortgage brokerage function to provide access to the national mortgage credit market. Also, a regional or statewide agency for providing or underwriting venture capital could be a possibility.

Southern Iowa, like all other areas in adjustment must come to realize that existing trends of adjustment cannot be altered without structural changes in the area itself. And much more than just a healthy attitude is required. Such regions must learn to look inward to a much greater extent for a solution to their development problems. An inward look is always more perplexing and raises a whole host of complicated issues of the kind raised in this paper. I am sure that it is a much more challenging approach than writing letters to the United States Steel Company telling them that they ought to move to Leon, Iowa; but it is more likely to produce tangible results.

A final word of caution about attracting industry. It should always be kept in mind that the best possible program may produce an increased number of non-farm jobs still far short of the number of displaced farm workers and programs for reducing transfer costs should not be ignored. Also, many programs aimed at this end are complimentary with the goal of increasing the area's attractiveness as a location for production, for example, improved and less agriculturally oriented education.

The fact that the number of new non-farm jobs might not mesh with the release of agricultural workers should not be a point of concern. As indicated above, halting out-migration is not an operational goal anyway. It would seem more important to tell people, not what ought to be accomplished, but what they ought to do to accomplish their desired ends. The resultant trends are of interest, of course, for purposes of program appraisal and county and city planning, but they should not be pulled out of thin air as perhaps impossible goals leading to discouragement and disillusion.

In this light I should like to conclude by summarizing some of the courses of action alluded to above which seem likely to be successful in shifting the present trend of adjustment more towards capital mobility and away from population mobility.
Some Comments on Specific Development Techniques for Southern Iowa

In closing, I would like to summarize some of the implied comments on specific development techniques continued in the paper. These are offered merely as suggested policies worthy of consideration, if people in the area are interested in substituting some amount of capital mobility for a part of the region's prospective out-migration. The order of listing is not meant to convey any order of importance or sequence of development.

Area promotion. Dissemination of information to firms outside the area can be useful to the recipients of the information and may reveal southern Iowa as a preferred location for some of them. Circulated materials should consist primarily of detailed information on costs and availability of resources; large outlays on elaborate promotional brochures and personal calls on executives might be seriously reconsidered. Locational analysis would suggest that the best prospects for attraction to the area would be processors of farm products and producers of farm inputs and finished commodities, especially high-bulk products which either use local raw materials or are non-weight losing in production and are not subject to extensive economies of scale, and secondarily, products for which transport cost are unimportant.

Expansion of trade and service facilities. While such investment would entail risk, thought might be given to use of public and private capital for reorganizing and refurnishing area business districts toward the end of reorienting area residents' shopping habits.

Encouragement to new and existing businesses. Local development officials should take a much closer look at new business possibilities offered by individuals within their own communities and the expansion of existing firms. Also, financial institutions should be made to feel aware of such possibilities and the need for their cooperation. Thorough acquaintance with Small Business Administration financing should be achieved.

Improved local governmental services. From observing patterns of industrial relocation, one is tempted to suspect that business firms are much more interested in a sufficient quantity of high quality public services at an efficient cost rather than as low a tax bill as possible. Again, investments in this area would entail some risk, but in many cases they would be compatible with the problems of transfer cost minimization. Much needed school consolidation would come under this heading.

Lowering transfer costs of out-migration. While I am not prepared to make specific suggestions, it would seem that some qualitative changes in secondary and adult education could contribute to this end. Also, more articulate town
and city planning could help ease the burden of out-migration on those remaining in the area.

In addition to these courses of action there are a number of other things which should be done, but which can be undertaken only at a state, or perhaps national level.

**Investigation of effects of migration on economic functioning of particular areas.** Before social scientists and national and state policy officials can formulate effective programs, much more needs to be known about the effects of population increase or decrease on the cost functions for local government services and external economies of private businesses both in urban and rural areas. Concern over what is essentially an inter-regional problem can hardly be expected to develop within a single region.

**Aids to lowering transfer costs between regions.** At the state and national level, we should develop more explicit consideration of means of lowering transfer costs, both for capital moving into under-capitalized regions, and for people moving out. State development corporations to extend or underwrite venture capital to new business is one type of activity that could be considered. Another would be an agency to consider plans for relocating people, giving advice to prospective out-migrants in rural areas and aiding in settlement of in-migrants in urban areas.

**Technical assistance.** A further important function of state development agencies is to provide technical assistance to local communities to help them in their task of attracting or developing industry. Much more emphasis should be given to the role of local communities as the prime movers in such a program, since industries usually decide to locate in a broad region, generally not coincident with state boundaries, and then in a specific locale within this region. A state is not a particularly meaningful area from the standpoint of the operational aspects of locational decision-making.