Urban Development

PROCEEDINGS OF THE SECOND ANNUAL
URBAN POLICY CONFERENCE NOVEMBER 4-6, 1965

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FOREWORD

The Urban Policy Conferences are annual meetings where government officials assemble with leading academicians to examine the forces that are shaping our urban communities.

The 1965 Conference focused on the topic of urban development. Scholars from a variety of disciplines presented a number of perspectives that are important to an understanding of this complex process.

Urban Policy Conferences are co-sponsored by the Institute of Public Affairs and the League of Iowa Municipalities. The 1965 meeting was the second annual Conference and was held at The University of Iowa on November 4-6.

Prof. Harry R. Smith of the Institute staff prepared these papers for publication.

DEAN ZENOR, Director
Institute of Public Affairs

April, 1966

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URBAN EXTENSION
The University's Role in Urban Development

John E. Bebout*

If anyone had predicted some fifty-odd years ago that a farm boy from New Jersey would be giving a talk in Iowa on urban extension in 1965, I think people would have said he was crazy. But this is what is happening to you and to me. I was brought up in the arms of agricultural extension pre-Smith-Lever Act. I was a champion boy corn grower of Morris County, New Jersey. We did grow corn in New Jersey—I guess maybe we still do a little—and I went to agricultural college thinking I would become an agricultural agent. Somewhere along the line I drifted from agriculture into history and political science and now I am sometimes described as an urban agent.

This change is fairly representative of what has happened to the country. The rural population is being reduced to a smaller and smaller minor fraction of the population of the country and the farm population to a diminishing minor fraction of the so-called rural population. The fact of the matter is that everyone in the United States, or almost everyone, lives or shares in the urban condition. Typically, he lives in an urban place, and 65 per cent or nearly so live not only in urban places but in metropolitan places.

Even if you don't live in such places you are greatly affected by the urban condition, for most of the domestic problems of our society have urban roots and urban aspects. If you happen to live, for example, in northwestern New Jersey in what is still, to all appearances, a rural area, you are about to be overwhelmed in many ways by the flood of people who will be going there in what will be one of the great new recreation areas in the Northeast. As a result of the damming of the Delaware River at a place called Tocks Island, the river will be backed up for a great many miles into a

*Director, Urban Studies Center, Rutgers—The State University (New Jersey)

long narrow lake which will be used for a reservoir and park area, and which will be a mecca for people from the teeming cities in the New York and Philadelphia region. So the farmers there, in these little municipalities in the northwestern part of the state, are going to be confronted by zoning problems and other problems that are essentially urban generated.

Urban extension was born when urban society and cooperative extension were discovered to each other rather late in life, and produced a progeny called urban extension, in the hope of largess from Uncle Sam. I think the gleam was originally in the eye of Paul Ylvisaker of the Ford Foundation, who thought it would be appropriate if we could celebrate the one-hundredth anniversary of the Morrill Act, the land grant college act, in 1962, by adopting something in the nature of an urban Morrill Act. So, some years earlier he consulted with people with a similar gleam at Rutgers and the University of Wisconsin, and a few other universites, in setting up some experimental urban studies and urban extension programs.

We missed the 1962 date; we didn't get an urban Morrill Act. But we have had a number of acts, adopted in 1964 and 1965, that come pretty close to adding up to an equivalent of an urban Morrill Act. We have Title VIII of the Housing Act adopted in 1964, which authorizes federal grants to states for training and research, in support of urban government. Unfortunately, there has so far been no appropriation for it, but at least the authorization is there, and the new department of Housing and Urban Development, I trust, may establish a program along this line.

Title I of the Higher Education Act has just been enacted. It provides for a very broad program of federal support for urban extension-type activities. I think it might be worthwhile to read the first three or four lines of section 101. "For the purpose of assisting the people of the United States in the solution of community problems, such as housing, poverty, government, recreation, employment, youth opportunities, transportation, health, and land use, the Commissioner of Education is enabled to make grants . . ." and so on. This title is called "Community Services and Continuing Education Programs," but the emphasis is on what President Johnson, in a speech at the dedication of the Irvine campus of the University of California a little over a year ago, called urban extension, designed to help communities, community leaders, public officials, and those in private organizations solve community problems. Another act is the State Technical Services Act of 1965 which provides

money that the Department of Commerce can dispense to provide such things as technical information services, technical referral services, workshops or seminars, and advanced technology—all designed primarily to help communities help small business. The Economic Opportunity Act of 1964, the Act on the basis of which we are engaged in an all-out national war on poverty, has numerous provisions which call upon universities to provide help of one kind or another, either training or research. The research is to be directed specifically toward meeting the problems of poverty—the underlying roots of poverty as seen at least by the framers of the Act and the strategists in the Economic Opportunity Office in Washington.

This all adds up, then, to a very heavy demand upon universities to participate in a many-sided national effort that is to deal systematically with urban problems in a manner never before undertaken. Of course, it has universities somewhat off-balance. I read in the *New York Times* this morning an account of the first Stafford Little lecture that Dr. James Perkins, President of Cornell University, gave at Princeton last night. He said that one of the projections that is popularly made today of the future of the university as a result of this kind of thing is that it will be for hire for the short-run rather than for the long-run needs of society, and corrupted by every grant and invitation. He said that is the fate that is currently described in the following academic limerick:

> There was a young lady of Kent,
> Who said that she knew what it meant
> When men took her to dine
> Gave her cocktails and wine;
> She knew what it meant—but she went!

He did not say that he necessarily subscribed to this view. I don't subscribe to it, but I suggest that the universities have to respond positively to this challenge, even though it's going to be painful, even though it will disrupt some longstanding habits, ways of doing things, and allocations of resources. In the long run when we have shaped up fully we will discover, I am sure, that the participation in efforts of this sort will have enhanced permanently the intellectual and the other resources of the university.

I have sometimes thought it was a little unfair to speak as if urban extension were quite as new as I have suggested it was. The fact of the matter is that universities have been engaged in urban extension-type activities for a long time. Some of you are doubtless familiar with the little book called *The Research Function of the*

University Bureaus and Institutes for Government Related Research based on a symposium at Berkeley two or three years ago. The very first sentence in the first chapter in this book, incidentally written by an Iranian, reads as follows: "The university bureau is a product of twentieth century urbanism in the United States." Now the university bureau goes back to the early part of the century. I think the first two, according to him, were bureaus set up in Wisconsin and the University of Kansas in 1909. These were followed by the establishment of a few other bureaus before the first World War. Then there was a slump in the generation of new bureaus, until more of them were developed between the two wars. Quite a number have been set up since. These bureaus variously named Bureau of Public Administration, Institute of Government, Bureau of Government Research, and so on, now number fifty or more in state institutions. There are bureaus of similar nature, more or less limited, depending on the nature of the institution, in a good many private institutions. Besides this category of bureaus of government research and public administration, there are various other bureaus concentrating in economics or the behavioral sciences and other areas which are also engaged, if not in every case in typical extension-type activities, at least in problem oriented research which serves the public rather directly by helping it identify and meet its problems. So the truth is that urban extension, although never named urban extension before, as far as I know, is really older than the Smith-Lever Act. And cooperative extension, or rather agricultural extension, is a good deal older than the Smith-Lever Act too—it goes back to the latter part of the last century.

I said at the outset that urban extension, by name at least, is a result of the belated or mutual discovery of urban society and cooperative extension. In this connection, I think it is important to remind ourselves that the United States became a predominantly urban nation quite a while before we began to realize it. This, of course, is standard. It is usually true of any change or development of this sort. A new condition is upon us, and may almost overwhelm us before we begin to recognize it, let alone to understand it. The Census Bureau said that the majority of people lived in so-called urban places in 1920, and if you project backwards the present definition of a standard metropolitan statistical area, it would have been discovered that the majority of the people in the United States lived in metropolitan communities, not just urban communities, by 1940. So the condition has been with the majority of Americans for

nearly half a century, but it certainly was not until after the last World War that we became sufficiently conscious of it to relate public policies in anything like a systematic way to the facts of urban society.

I think we must admit that universities have been rather slower, in many ways, than some other parts of the public sector in recognizing the urban condition and adapting to it. Our own university, Rutgers, the State University of New Jersey, in the most urban state, has, according to some urban critics, been a fairly rustic institution until quite recently. It is only this year that the general extension division is being reorganized, as a result of the recognition that the acts that I have mentioned here, and other public programs and policies, are going to play an increasing pressure upon the university to put itself as effectively in the service of the urban community as it has long been in the service of the dwindling rural community.

It will be a long time before we catch up. When I was looking around the university back in 1960 to make up my mind whether I would accept the bid to come and organize the Urban Studies Center, I visited the director of cooperative extension at Rutgers. I asked him about how much money he had to spend on extension—not on research, but just on extension. "Oh," he said, "about a million dollars a year." I said, "All right, this is very interesting. I'll have somewhat less than fifty thousand a year to do good to about 90 per cent of the people of the state; you've got a million to do good to the other 10 per cent. I think it's important to keep ourselves in proper perspective here. And I shouldn't be expected to do as much for the 90 per cent as you do for the 10 per cent." Of course, this was an oversimplification, but the fact is that we are still investing a great deal more in trying to relate intelligence and the findings of research to the meeting of rural problems than we are in any systematic, well-organized and well-integrated way to meeting much more complicated urban problems.

It may be worthwhile to spend a few moments on the often-drawn comparison or analogy between cooperative extension and urban extension. I found it an extremely troublesome analogy in the early days of our effort to establish an urban studies center at Rutgers because it led to expectations and to assumptions regarding intentions which were wide of the mark. The cooperative extension system is made manifest to most people largely through the so-called agents—agricultural, home economics, and 4-H club agents—who are

locally based. If the university were to saturate the urban community in anything like the same proportions with urban agents, we would have an army of thousands of them in a state like New Jersey. This would be a much bigger army than I have any intention of commanding in my state, or that I think any university administrator ought to hope to command in any state.

Furthermore, I was appalled at the amount of harm that a lot of well-intentioned professional do-gooders in the name of agentry could do in the complex situation of the urban society. I quickly began to point out that the situation under which we were trying to move was a very different one from that in which the early farm agents began to move. Comparatively speaking, they were moving into a vacuum, and for the first time supplying technical assistance, face-to-face, on pretty much a one-to-one basis, at least until they began to get farm organizations to help them do it wholesale. In the urban society we have all sorts of people trying to do good to others and trying to help the community solve its problems according to their respective likes. These people are called educators, social workers, planners, and so on and so on. They are employed by various kinds of organizations, public and private, and some of them are just plain volunteers acting on their own. In other words, the society really is swarming with urban agents already, except happily they're not all of them agents of a university, or any other single organization.

It seems to me pretty clear then that we ought not to try to compete with these existing urban agents, but rather find out how we can supplement the work that they are doing and perhaps help selected members of this amorphous class of agents do their jobs better. I had hardly got on the campus at Rutgers when the president got a nasty letter from one of the most active city planners in the state charging that the university in general, and I in particular, were about to steal the bread from the mouths of their children because supposedly we were going to compete with the professional planners in the state by providing planning assistance to local communities. We hadn't the slightest intention of doing this, because New Jersey is swarming with professional planners who are very competitive and out for the business very ardently and aggressively. It would be silly for us to try to get into that kind of competition. On the other hand, a similar urban studies center was established with a similar Ford Foundation grant a couple of years later at the University of Delaware. Whereas New Jersey was swarming with

professional planners, there wasn't a single professional planner in the state of Delaware, and no community had the regular services of a planner either on the staff or on hire. So one of the first things that this center did was to begin to introduce planning to the state of Delaware. Now, only three years later, there are several professional planners in Delaware. In short, the center may be working itself out of that particular kind of business.

I mention this for two or three reasons. One, is to underline the proposition that urban extension ought not to compete with or duplicate services that are already available. The second is that what urban extension should mean and involve in any given state at a given time will depend upon the state of the art in that state, upon what exists already in the way of expertise directed toward the needs of urban policy-makers and people engaged in dealing with urban problems. This means that no two urban extension programs could be as much alike as two agricultural extension programs. Of course, they are not precisely alike either, because the patterns of agriculture and rural life are different from state to state, but there is properly a much greater similarity or uniformity among cooperative extension programs, it seems to me, than among urban extension programs.

Furthermore, it seemed clear to us at the outset, and it has become clearer as we have gone on, that urban extension ought to be always working itself out of jobs so that it can take on new jobs. In other words, it should be tackling an ever-moving frontier. So the University of Delaware, and Michigan State, which also found that in the beginning under a Kellogg Foundation grant it was doing a good deal of elementary planning assistance, are gradually working themselves out of one of their most important early jobs. We worked ourselves out of a job pretty fast in connection with the poverty program; at least we worked the job down to more nearly manageable size. We anticipated the adoption of the Economic Opportunity Act several months before it actually became law. We were called in to consult with members of the task force in Washington, and so became pretty well aware of what was going on, and pretty certain that the Act was going to pass, even though a lot of people were very skeptical. We undertook to begin to alert communities and the state government in New Jersey to the opportunities and the challenges that this Act would almost certainly embody. We helped some communities to do some ahead-of-the-game planning for community action programs. At the same time, we urged the

governor to create a strong state Economic Opportunity Office with the idea that it would ultimately provide most of the routine guidance and technical assistance for local communities under the Economic Opportunity Act, and this was exactly what happened. What I did not anticipate was that John Bullitt, who became the director of the state office, would also borrow or steal some of my key staff.

We did not work ourselves out of the economic opportunities business altogether. We reduced the routine sort of performance that we had to undertake earlier, and we are still involved in advising with the state office and with local communities from time to time on particular matters. The university will be involved, I think certainly, in the training program under training grants that the state office has obtained from Washington. And we are also involved now in evaluative research for the State Department of Health which has a health program under the community action part of Title II of the Act. And we have in Washington, on somebody's desk, a rather ambitious proposal to use New Jersey as a pilot state to experiment with techniques for evaluating community action programs generally. We are told that this is a very exciting proposal. I hope that some day the interest in it will be active enough either to get it filed or to get us the money. If we had not deliberately tried to get out of some parts of this business, we just wouldn't be able to go on and do some of the more exciting things.

I have said something about the dissimilarities between cooperative extension and urban extension. It is just as important to point out that there are some similarities and that we have learned and continue to learn a great deal from the experiences of cooperative extension. In the first place, as far as I can find out, part of the inspiration for urban extension came to people who were sent to India by Uncle Sam and the Ford Foundation to do community development work, and for the first time discovered American agricultural agents also doing community development work. This discovery led to speculation that it would be a fine thing if we could import this idea and technique to the United States, to urban America. So I have sometimes said that we bounced agricultural extension off the land of India, like a message off the moon, and back into American cities. This is the way communications work these days.

What are some of the basic principles of cooperative extension that are applicable and meaningful? First, of course, is the very

idea of using the university, which is pre-eminently a place in which knowledge is accumulated and analyzed and catalogued and new knowledge is developed, not only to teach undergraduate and graduate students, and to help professors become more and more profound, but also to serve the community in general by what we call extension techniques. This, of course, is a distinctly American development of the university, and we owe this largely to the cooperative extension and agricultural college system for making the service function of the university real, substantial, and respectable.

Another thing that cooperative extension and the whole agricultural system of the universities have demonstrated is the absolute necessity for an arrangement which relates research, education within the university, and extension with one another. I am told that when the Morrill Act was passed the assumption was that the land grant colleges would begin at once teaching agriculture to agricultural students. Then they discovered that they did not know enough about what to teach. They decided they had better get out into the community and find out what the problems were. So there developed this interrelationship between the university and community contact of an extension nature—a two-way street sort of thing—which fed knowledge and information back and forth between the farm community and research and college level instruction. This principle of the agricultural model is certainly applicable to the urban extension model.

You can refine this somewhat further. They discovered as time went on that whereas they needed communicators to the farm community, whom they call agents, they needed extension specialists as well. They needed people with special knowledge, special competence, special command of particular fields, who could be drawn on for particular jobs that a general agent could not perform, and who could, with other researchers in the university, develop answers to new problems. This extension specialist function is also transferable to the urban extension environment, it seems to me.

Various things that the agricultural people have learned about dealing with people in the community to be served can teach us much. We started an experiment last year with what we called "volunteer urban agents," and we are now in the second year of this experiment. We selected about a half a dozen people (nine or ten, this year) who were active in their communities and felt that they could improve their capacity to act effectively or knowledgeably

if they learned more about the urban environment in which they were operating and could have some kind of continuing contact with others doing the same kind of thing.

We had these half dozen people in for about a day every week for special programs of one kind or another and for sort of mutual feed-back, companionship, and comfort. The publicity department of the university announced that the Urban Studies Center had discovered or created a new breed known as volunteer urban agents. We immediately got a call from the cooperative extension people, asking what we meant by invading their preserve. They pointed out that they had had volunteer agents lo these many years, and furthermore that they were in a sense urban agents because New Jersey is mostly an urban state.

We invited them to send representatives to the next meetings of our group and told them that we wanted the benefit of their wisdom and experience. We learned much from them, while they discovered that we were doing something quite different from anything they ever dreamed of or ever could dream of. They appeared to be quite fascinated, and so we have established a successful relationship. Last week we had a meeting of the new crop of volunteer urban agents with the cooperative extension people which, I am told, went off very well. In the meantime we have been involving cooperative extension people in urban issues seminars which bring together community leaders of all kinds every other week, all day long. Thus, we are trying to help urbanize the farm agent. In all of this we are following a trail that they blazed long ago in training and making use of volunteers—local club leaders, women who are given instruction by the home economics workers, and so on—who then pass what they have learned on to larger groups and established farm organizations.

In the early days of the Urban Studies Center we undertook to set down a concept of urban extension in an article in the *American Behaviorial Scientist*. I will just tick off a number of roles of urban extension as we saw them about the time we started in and as we continue, for the most part, to see them. I think this may be as good a way as any of developing a little more rounded notion of the possible dimensions of urban extension.

The first role we called the clearinghouse role, meaning both an internal clearinghouse function within the university and an external clearinghouse function. Nobody, in any university that I know anything about, really knows enough about all of the relevant

and potentially related resources and activities within the university; those, for example, that might well relate to some of the missions or activities under the general rubric of urban extension. So it seemed to us that one of the first jobs was to begin to learn the university and learn what its resources are, for one thing to avoid stepping on other people's toes, but, more importantly, to learn where people are who have special expertise so that you can draft and impose upon them for various kinds of help.

The external clearinghouse function, of course, is that of providing some point of contact within the university to which anybody from the urban community can come and find out whether the university has any help to give on his particular problem, and if so, where. Partly in order to systematize and strengthen this service the Bureau of Community Services has recently been set up in the General Extension Division, headed by a man who has had and continues to have a joint appointment between General Extension and the Urban Studies Center. (Just by way of explanation, I should probably say that the Urban Studies Center is a kind of a free-floating branch of the university. It is not in any college or other branch of the university. As the director, I report directly to the Provost and the President.)

Another obvious role of urban extension is the general counselor and consultant role. This role can be performed and is performed in our place, and I suppose any other place, at a great variety of levels. It is astonishing how much good can be done in a two-minute telephone conversation by answering a simple question that may result in a referral or something of the sort. Our growing Urban Studies Center library is taking an increasing amount of this rather elementary but vital kind of information and counseling service off the backs of the rest of the staff. The counseling role, of course, can take much more complex forms, as in the case, for example, of the work we did and still do with community action organizations under the Economic Opportunity Act.

One of the most important roles, we have found, is the convener role. For reasons that are not altogether clear to me, universities have a special attraction for people outside. They like to come to places like this and they like to respond to invitations from the university, or from some branch of the university, to come to a meeting. About three years ago, the city administrator of Newark came to me and asked if we would convene the city administrators of the six largest cities of the state. He explained that the mayors of these cities had

been meeting about once a month among themselves and with the governor to talk about urban policy problems, and that his mayor felt that interim meetings of the administrators might help strengthen the agenda for the meetings of the mayors. I agreed that if it would help legitimize the meetings we would invite the group to come to the campus once a month and that the assistant director of the Center could act, for the time being at least, as the secretary. In due course they wanted more help than that, and so they put up enough money to hire a graduate research assistant. This went on until two or three of the then-existing city administrators got out of the business for one reason or another, and the mayors stopped meeting with one another. Finally, after about two years, these six city administrators dwindled down to two or three and we suspended the meetings. I hope that condition will change and they will start coming again. The point is that the university, as convener, can respond, encourage, invite, and assist, but it can not expect to compel.

In the meantime we have had a good experience with a somewhat less formally structured continuing dialogue involving members of the Center's staff and other selected persons from the university, with planners, especially members of the staff of the State and Regional Planning Division of the Department of Conservation and Economic Development, a few key local planners, and representatives of the state association of planning officials. We had one of these occasional seminars only the other afternoon on the subject of the relationship between physical and social planning. Now don't ask me what social planning is, but this is a problem that is bugging us and the planners all the time. They feel the need at least for the comfort of conversation on the subject with people other than planners, and they allege that this was an exciting and interesting experience. We agree and intend to continue with this.

We have convened many other kinds of groups, including two or three different groups to brainstorm the Governors' proposal for a state department of community affairs. I think the bill for this department will be adopted in 1966, now that the Governor has a majority in both houses of the legislature. At the Governor's request, we also ran a series of regional meetings on the state's transportation problem. Again, it seemed to the Governor that the university was a better convener for this kind of an enterprise than the state government or some other agency. Out of that series of meetings came the creation of a study commission which is just about to make its report.

Another form which urban extension takes in our place is what I call special education, which means, simply, particular educational programs focused on particular groups or particular kinds of problems. One form that this has taken is a series of so-called urban issues seminars referred to earlier. We have two of them running now, one in Newark and one in New Brunswick, every other week all day long. About thirty-five people drawn from fairly responsible positions—decision-making positions in business and government, in voluntary organizations, and cooperative extension—spend a day every other week. Usually an outside lecturer in the morning and a lecturer from inside the university or from some state agency develop some crucial aspect of the urban condition. The lecturers are followed by lively interchange and discussion. These seem to be meeting a very real need. One thing we found, incidentally, is that great value comes from the mixed bag of people we have in these groups. At the request of the Council of Churches, we ran a similar seminar for ministers. They managed to get Catholics, and Jewish, as well as Protestant clergymen together. But the attendance was lackadaisical. On the other hand, we've had a number of ministers who have been extremely faithful in attendance at the other urban issues seminars. We asked them why this was. They responded that they see one another too often as it is, and get bored in one another's company.

The next role that I have tagged is general education and public information. You can write your own ticket on that. We have been able to scratch only the surface possibilities in this area.

Finally, the most complicated—and probably in the long run the most significant—single form of urban extension is the demonstration type of operation. Cooperative extension bears heavily on the demonstration technique; but I am bound to say that its use in the urban field is more difficult and more hazardous, because we are dealing mainly with people and institutions, not with orchards and cattle. We are all familiar with demonstrations in housing and urban renewal and in other fields. We tried a very ambitious demonstration project in Newark quite early. First, we thought it was important to begin to develop a dialogue between people in the university and the decision-makers in Newark. We persuaded the Brookings Institution to join us in conducting a year-long series of approximately monthly all-day meetings—involving quite high-level decision-makers from business, labor, local government, community organizations with selected university people from Rutgers and other institutions.

Out of this group came a request that we try to develop something like the Ford Foundation gray area demonstration projects in the city of Newark. It took us longer than we expected to get this program developed because of the extreme difficulty in maintaining an effective dialogue involving social workers, educators, politicians, labor leaders, and so on. We almost had our heads handed to us several times in the course of about two or two and one-half years. By the time we had a program that we were about ready to present to funding agencies, they were fresh out of money. This was partly because the Economic Opportunity Act was then just coming up over the horizon.

What did happen was that we put Newark considerably ahead of where it would otherwise have been in its effort to get money for community action programs and getting a community action program going. Some of the program ideas that we have developed could be worked into it and we had already set up a private nonprofit corporation which, with some modifications, became the community action organization. We gave this organization a good deal of technical assistance in its early days. So while this demonstration project, as a university project, never fully got off the ground, the work on it paid off in many ways. It taught us a great deal. It got people in the community to talking with one another who had never done this effectively before. And the position of the community was much better than it would otherwise have been for the community action program.

Much more needs to be said about demonstration projects, but I've already talked longer than I should because we must still hear from the commentators: Dr. Ray, Mr. Bodine, and Mr. Rinard.

Robert F. Ray*

It seems to me that this presentation was splendid; Rutgers certainly has given wonderful leadership to all of us who are concerned with the broad area of "general" extension or "urban" extension. I think "urban" extension is perhaps a better term in some respects. It provides the basis for both contrast and comparison with Cooperative Extension. The overall program that Rutgers has brought into being, I think, is a kind of model that all of us who are in general extension are much aware of and much concerned about. Hopefully, with the help that the new federal legislation promises,

*Dean, Division of Extension and University Services, The University of Iowa

perhaps it will be possible for us on a broader and broader kind of moving frontier (as Mr. Bebout has described it) to be of ever-widening service to the people of the state—particularly a state such as this which is so much in the throes of the change from being a rural state to becoming so important an urban state.

One of the questions that I would like to ask Mr. Bebout concerns the extent of faculty participation at Rutgers in the kind of extension programs that he has described. I would like to know the extent to which persons who work in your particular area are specifically assigned to this kind of operation, and the extent to which you otherwise rely on the faculty at Rutgers to participate in the kinds of roles that Rutgers plays on the broad extension front. Would you care to comment on this?

MR. BEBOUT

I suppose probably the best thing to do is to explain briefly our staffing pattern. We took the position at the outset that this was to be a center with an interdisciplinary core staff, large enough to do some things on its own and to help urbanize the university as a whole. We see no point in distributing something like a million dollars, or a little less, in five years among the various parts of the university. It would just sink and be lost, and I didn't come to Rutgers to become a sub-foundation agent doling out money.

I first sought a member of the faculty, hopefully, who might be the director of the research and education side of the operation. I got a very brilliant sociologist, Robert Gutman, to come over on the Urban Studies Center on a half-time basis, having a joint appointment with the sociology department. Most of the professional staff are on joint appointments with other departments of the university. We have two men who don't have joint appointments. One is the assistant director who is full time with the Center. One other man, David Popenoe, a Ph.D. in planning from the University of Pennsylvania, who is now director of the research and education part of the operation, also is full time.

All the others are on joint appointments. Most of them are sociologists. I never thought I would be so knee-deep in sociologists in my life. One of them is a geographer, and we have from time to time managed to get pieces of the time of economists and some others, but no continuing formal joint appointments, unfortunately, yet. We have negotiated, subject to financing, a joint appointment with the Graduate School of Social Work. We did have for a year a joint appointment with the Graduate School of Education. And we do

have a joint appointment with the Law School and the Graduate School of Library Service. But most of these people spend more time in our office than they do in the office of the sociology department or whatever department they are connected with. This is extremely important, because this has developed a kind of esprit de corps and cross-fertilization that wouldn't develop at all if they were scattered all around the campus. This has made the Center into a kind of a think tank—and I mean this—it's become one of the most yeasty places in the university, I believe. People like to sit in on our brainstorming sessions. We invite people from other parts of the university, from time to time, to come in and brainstorm particular questions.

Aside from the people who are on continuing joint appointments, how do we involve other people in the university? Well, we involve them occasionally on particular projects. For example, under a 314 grant from HHFA we've just completed a study of slum landlords in Newark. This was done by a professor of marketing in the Graduate School of Business in Newark. We've done other projects on that basis. We also call on other members of the faculty in helping us with research design and things of this sort.

CORNELIUS BODINE, JR.*

It is certainly a very stimulating paper and I do believe that there is much to be done in Iowa and other places with regard to extension services in urban environments. It seems to be somewhat uncrystalized as to what the approach should be and what the purposes should be. These urban studies centers which are springing up seem to be sort of unhinged in a way. They are old in terms of ideas maybe, but they aren't structured in such a way that they seem to have a fixed position in the educational institutions. It sort of reminds me of Damon Runyan's longest established permanent floating crap game to know whether you exist or whether you don't, what the next federal appropriation will be, whether it's organizationally possible to combine specialists in the various disciplines in the university to be concerned with the purpose and meaning and reality, actually, of urban life. I don't know whether they are going to move unless they more suit the structure to the purpose.

I don't know whether you can go around trying to adapt an agricultural institution to one that is interested in urban studies exten-

*City Manager, Sioux City, Iowa

sion. I think you have to start out with an original design and with a purpose in mind. And we may get there. I suppose we're in the transition stage. But our society is urban, and they may end up being called ecological centers, or something of the sort to better figure out how the human creature can better be adapted to his environment, the mutual relations between the two in an area where density is great, where technology is overwhelming, and where people are trying to survive in a civilized manner. It's a lot more than making a study of landlords and making a study of traffic counts, and it involves the whole complex of public and private institutions, it seems to me.

I don't want to talk too long on this, but I do want to comment on this one distinction made by another university, and which was touched on in Mr. Bebout's paper—a distinction between applied research and pure research. Pure research is supposed to be, I understand, that which simply tries to diagnose or analyze cause and effect. You get so many cases where something occurs, and you discover that this cause is very likely to bring this effect. You get into applied research when you are trying to use that kind of information to attain desirability, which you predetermine and preconclude. You also predetermine the strategy for achieving that desirability. That is applied research.

Now this seems to me to have real pertinence to an extension service, because as Mr. Bebout has said, and as his paper further elaborates, an extension service cannot cover the whole water front. It's the university, after all, whose prime purpose is learning, and the idea is to get into the adult level as well as to perform certain services. Some of those services he calls being a change agent—to concentrate on innovation, to touch on the ever-advancing frontier, to hit the moving target enough to make an impact and then go on, hoping that somebody will pick up the pieces and keep that worthy thing under way. It is also problem oriented in that it doesn't try to administer functions, but hits on specific problems, which are intense or severe, at the particular time and the particular place. Yet the university is supposed to be a dynamic community force in such urban extension work. It is also supposed to be the sole remaining objective institution in society.

In any event, it surely has a role to play which the cities seriously need. Now how to fit it in of course is not easy. I would like to get some thoughts if I could from Mr. Bebout, and maybe from Dr. Ray also, on the question of how you become this dynamic force even

on a single problem. I've got a dozen of them listed here, without getting mixed up pretty well in the thing which your paper most diligently seeks to avoid, namely controversial issues. The idea is not to get mixed up in politics, not to be such a leading force that you're going to create too much controversy through recommendations that are of a radical nature. In other words, you have really such an ambivalent hope that I wonder if it's going to occur.

We had the Institute of Public Affairs do a series of four interesting studies in Sioux City called *Siouxland Studies.* And they actually did some good work there in terms of making some recommendations. They made them in a mild enough manner so nobody objected very much, and much of the staff then had some basis for using these recommendations for doing what they wanted to do in the first place. Although I do understand that the Institute of Public Affairs made the same kind of a study in Davenport and there it was particularly advised not to study problem X or A, B, and C because this might be too embarrassing, and so they refrained therefrom. I don't know whether such studies should be so truncated as that, particularly when they have to do with such obvious and widespread problems. I wonder then how the extension service can go beyond just the technical service, which we sorely need, and yet stay out of the field of being a change agent in a sense where it really counts, namely taking sides with the future against people who long for the past.

MR. BEBOUT

This is the sixty-four thousand dollar question, and could well be the sixty-four million dollar question. I think the answer is that you must be a good politician. This probably isn't the answer you expected, but I don't know any other way to put it. You survive if you're adroit enough, and if you're not you go down, that's all. And I would certainly say that to be qualified either to run an urban extension agency or to play a key role in it, you better have a good political sense and some training in it.

I don't like that expression "change agent." I never have, and if I used it I apologize because I usually try to find some locution that avoids it. I don't know what a change agent is, for one thing. I think I know something about change and the word "agent" has been used for all sorts of things, including ticket sellers, and so on. Obviously, we are concerned with change. We're concerned with helping people in the community adjust to change and relate their institutions, their ideas, and their practices to the changing facts of life.

We don't dictate change of course. We don't tell people they must do this, that, or the other thing. But how far do you go in giving pointed advice? Well, this is essentially a political question. Merely to talk about a certain subject at a certain time and a certain place might be just too dangerous. So you keep your mouth shut. It seems to me that Queen Elizabeth I clapped one of the members of the House of Commons in the Tower because he'd asked her when she was going to get married, or to whom. This was one of the two most touchy subjects that anyone could brace her on, as I recall. The Commons protested, wanted to know if they didn't have freedom of speech. In effect, she responded, of course they had freedom of speech, but not to say anything that came into their silly pates.

I think you've got to be ready to curb your ardor sometimes, and not talk about some things if you can't get anywhere except in the Tower as a result of it.

In Newark, as I said, we almost had our heads handed to us several times because of the great difficulty of communication with and among professional educators, professional social workers, and various lay and political types. Some of them were ready to run us out of town just because we were trying to work with them to develop a new kind of program. What many of them really had in the back of their minds was that all they needed was more money to do more of the same things that they had been doing all along. And of course, we weren't interested in just helping them get money for that purpose. They knew this, and this made us necessarily suspect, but as long as they thought that maybe we could get them quite a lot more money, and that some of it could be spent the way they wanted, they were ready to go along for the ride. We got some criticism from within the university for this. School of Social Work people said we didn't have any business talking about some of the subjects we talked about because we didn't have any university social work specialists on the staff. We didn't have any only because the leanly staffed School of Social Work could not assign somebody to work with us part time, and I refused to admit that welfare is the exclusive prerogative of the social worker—any more than I admit that education is the exclusive prerogative of the so-called educator. But this is part of our job, I think, to help break down these categorical barriers within the university as well as without the university. How far do you go? It's just a matter of judgment.

PARK RINARD[*]

Looking at this problem from the standpoint of general government, particularly municipal government, in the state I think we're all concerned about the chasm that we all know has traditionally existed between general government and education. And sometimes it's been hard for us, we think, to focus academic people's minds on the actual needs. Perhaps we seek too sophisticated goals before we get down to the bedrock.

I think I am reflecting the viewpoint of a lot of city officials to whom I have talked if I ask you this: Speaking of the roles of the urban extension service, how, and in what way, and through what agency, do we put some form in this whole amorphous thing, whether it's in extension service or general government? I don't know, but most people are wondering how do we make a shape out of all the *ad hocs*.

MR. BEBOUT

Well, as I suggested earlier, I don't think there is any shape for urban extension that can be developed in Rutgers, or Iowa, or any other particular place that can be transferred to any other place. I think it is essentially an idea and a mixed collection of skills and services that need to be adapted to time and place. The basic purpose is to find ways of injecting more intelligence into the decision-making process which monitors change, and the adaptation of people and institutions to change. One way in which we go about it, to be very frank, is to go down to Washington and talk to George Belknap, who will be your speaker tomorrow night, and others, about ways in which Uncle Sam can be more helpful in improving the IQ's and technical competence of state and local governments.

I regarded our activities in support of Title VIII of the Housing Act of 1964 as a legitimate form of urban agentry on behalf of the people of New Jersey. This is a point that I should have made before—that urban extension can perhaps sometimes be performed better at the state or the national level than at the strictly local level. The objective of helping the city of Newark improve the quality of its personnel and the input of information and knowledge into the decision-making process may be advanced much more quickly by breaking down the barrier against the broad-based tax in New Jersey than by direct action on the part of one or two people in the city of Newark. So all this is urban extension in our book. But I'm not

[*]Executive Director, League of Iowa Municipalities

about to put it into some stereotyped form. I think if we did it would wither and die, and we'd have to begin over again.

DR. RAY

I'd also like to comment on this, and on one of the remarks made by Mr. Bodine. I think that this notion of trying to put things into neat little packages, as Mr. Bebout has said, would probably not be a very good idea, because in the long run we would lose contact with these moving frontiers as you have described them. This could create problems. I think that the cooperative extension services have found that this is so. Certain persons who are appointed as generalists have to be buoyed up by specialists that come out from the centers that support them in order to keep them aware of the cutting edge of some of the problems that confront rural America. This, I think, makes a lot of sense. Nonetheless, you still have the same kind of individual by-and-large located throughout the counties, this in turn can lead to the kind of thing you have described in some areas. Moving these people around and creating new opportunities for them so that others who are more aware of these cutting edges of society as it exists becomes a very difficult problem.

Now, I think it should be said here, in response to what Mr. Bodine has said, that the concept of the whole university involved in these matters is a most important one. My own view is that in terms of general extension we have seen a remarkable evolution. It has gone at such a pace in recent times that it approximates a revolution as opposed to a simple evolutionary process. This state, through the creation of this university, has been concerned about extending what this university can mean to the people of this state for a very long time. As early as 1890 we were performing some extension functions in the state. In 1913 the extension division was created, and its purpose was stated by one of the people who created it "to render a service to the commonwealth, and to the people by carrying to every part of the state, the knowledge, the thought, the ideals, and the spirit of the several departments and colleges of the university and by bringing the university generally in contact with the citizen." And this has been the fundamental undergirding philosophy of the general extension program at this university ever since it was founded in 1913. And, incidentally, it had four bureaus created in 1913, one of which was a bureau of municipal information and research. So for a very long time we've had a tradition of concern about municipal life and municipal government at this university. This kind of activity has waxed and waned. In 1949 the Institute of Public Affairs was

created as an agency to be of service to government officials in this state, and to make available to them the general resources of the institution in ways we hoped would be meaningful.

Now I think in recent years, as Mr. Bebout has suggested, there has been a broader and broader concern with urban life. We have seen the federal legislation evolve, and this is going to accentuate this kind of activity. I don't know how many are aware of the fact that within a given year anywhere from seventeen to twenty thousand people come to this campus for short courses and conferences and institutes of various kinds. These are in addition to the sixteen thousand students who are regularly enrolled here. These seventeen to twenty thousand persons come here for a variety of reasons. By and large the things they come for are directly related to the urban life of this state. People come here for refresher courses and retraining and updating in a variety of ways, including a vast number of programs that are sponsored by the Institute of Public Affairs in terms of government activities.

But it goes beyond this. One of the key problems in urban life today, it would seem to me, would be the problem centering around the aged. We have an Institute of Gerontology here that is doing key research in this area and is concerned about this particular aspect of not only urban but of rural life as well. We have a Center for Labor and Management, and we have a bureau concerned with Business and Economic Research. We have the Institute of Public Affairs. And in addition to this, we have a broad base in all of this deeply rooted in the academic life of the institution. If you stop to think of the catalogue of what the university does, through its offerings—engineering, law, business, human medicine, pharmacy, dentistry, education, nursing, liberal arts, child welfare research, gerontology, agricultural law, agricultural medicine, public affairs, urban studies, nuclear research, labor and management—you get a kind of a catalogue of the activities of this state as it is becoming more of an urban place. Now what we need to do, it seems to me, is to tap these resources in terms of the kinds of cutting edges and moving frontiers that have been suggested. And I think basically, this is the kind of philosophy that ought to mark what the university does.

Let me cite you just one example and then we'll turn back to the other panelists. Back in 1919 this institution pioneered in the creation of a Child Welfare Research Station. When it came into being it had a keen missionary kind of concern. We were broadcasting child study outlines on the radio station. We got people in the

public schools excited about this business of child development. Everybody needed to know more about child nutrition, child discipline, family life, and school-family relationships. All over the state people were urged to form child-study groups. The Extension Division played a key role: pamphlets, study-guides, bibliographies, all manner of speakers and paraphernalia, and so on when out to the people of the state on almost the one-to-one kind of basis that marked cooperative extension at its outset. Extension played a key role in helping this agency to do its job.

Then, things began to change by virtue of what this agency did. The schools began to hire counselors. They have counselors for boys now, and counselors for girls. And you also have counselors concerned with career identification, and testing to determine what role students may best play in their adult life. You have the school nurse, and you have the school nutrition program, and the PTA's began to develop their own kinds of study programs, and they began to take over this function. You have juvenile bureaus within most important police departments. And the questions that most concerned this operation at its outset were passed on to an effective kind of community action.

Now, at this point, the agency that was the child development station has changed its function. It is now a key research center and it sends out its information through the journals to those who are expert in these fields. It brings counselors here for short courses, conferences, institutes, updating, and so on, but the leadership role is no longer on this kind of personal basis. It has shifted. I think this is the kind of flexibility that is so important in terms of dealing with urban problems as they arise.

Now there are some things which the institution can and ought to do on a direct basis.

There will be new problems arising that will require a different kind of approach, almost of the kind that the child welfare station had at its inception. And these ought to be treated in that same fashion. One of them that comes to mind is alcoholism. It is an urban problem; it is also a rural problem. But at last we have a body of information about this phenomenon so that we can begin to attack it. Now, what ought to be done? At the outset, it seems to me that there ought to be a very massive kind of extension effort devoted to this problem. When the communities have understood the problem and developed resources so that they know more about how to handle this within, then the university ought to play a different kind

of role, continuing always its research, updating those who are concerned, but moving off this cutting edge to another cutting edge. This, to me, was the most significant kind of concept that Mr. Bebout had to elaborate upon tonight. It comes very close to this university's attitude toward general extension. And I'm delighted to see the federal action taking place, a more broad concern on the part of our legislature with urban problems, a better appreciation of them by our regents and by others who are concerned, and the kind of meeting that we're holding here tonight.

We are concerned with urbanism because it's a new kind of jumping off place, but I would like to see the university's total resources involved insofar as particular kinds of problems are concerned. I believe this can best be done by tapping deeply the roots of our own faculty, and involving specialists in the extension technique only insofar as this may be necessary to meet particular problems. We must never become so entrenched with a kind of bureaucracy or hierarchy in this sort of thing that we lose our flexibility and are unable to move from cutting edge to cutting edge.

MR. BODINE

I think that the expansion of the Institute of Public Affairs and the whole extension operation is really a thrilling thing. What you have done is excellent, and what we hope you'll do is also encouraging. But I would like to point out a couple of problems that I think we have. I wonder, for instance, has anybody actually made a list of the ten most important problems in urban areas? What are they; what do people think they are? Now I think alcoholism is an interesting subject and we could use a specialist on the topic. But there are a lot of other things that are, perhaps, more significant in terms of the real problems facing urban areas today where the change is very great indeed. That's one thought.

The second thought has to do with the university's role, as you pointed out, in its extension services in making use of existing agencies to perform the catalytic purpose of setting them off in the right direction of lifting their sights or putting two heads together that wouldn't otherwise be, and so forth. I notice two state agencies concerned with urban matters, the Iowa Development Commission and the Iowa State Highway Commission. I notice these two agencies working in different ways. I notice that the Iowa State Highway Commission, for instance, has no thought whatsoever to comprehensiveness. It is a single purpose function. It gives very little thought, for instance, to its impact on the urban situation. It will build a strip

of road and that's it. Its connection with recreation development is only what is imposed by the federal government and the whole impact of highways on an urban area is very slightly thought about in the Highway Commission. I don't think there is a single qualified planner in the entire organization.

Now the Iowa Development Commission, on the other hand, is making an honest attempt to perform really an extension service, such as in this series of seven or eight industrial workshops around the state. I'm not sure if they are going about it the best way or whether they are providing the right people with the right information at the right time, but they are performing, in a sense, an extension service. Perhaps the university ought to have an extension service to the Iowa Development Commission; maybe that's the way to buttress its impact. I would like to read one sentence here from Mr. Bebout: "Presumably the theoretically ideal model for an urban extension program would be the one that would get the most important information to the most strategically placed persons in the most effective fashion, in the least time at the lowest cost." I don't know whether this is a goal or not. He goes on to say that you can't omit the ones that aren't so important too. But the state agencies could use a little catalytic uplift I would think.

DR. RAY

Here we get into the question that Mr. Bebout has mentioned about the proper role of the university as a convener. I think on some of these subjects this is a role that it ought to play, and perhaps more widely, as these subjects come up. The question of communication is most important here, because as these problems evolve within the communities there has to be a liaison between them and the university to know what seems to be the most critical problems at a particular moment. The university can make itself aware of these things as well, but we need to have communication on these subjects. Now the university has augmented what the Iowa Development Commission does, and it is in close cooperation with the commission. You may have seen a little booklet called *Legal Aspects of Doing Business in Iowa.* This was a cooperative venture of the development commission, the College of Law, and the Institute of Public Affairs. It put into the hands of prospective industries that might move into this state the basic structure and tenor of the laws that govern doing business in Iowa. This is a way in which it can help. It may not be the most important way, but it was a way that the development commission thought most important

when it posed the problem to the university. Another way in which it has helped is through the Iowa Model Ordinances which were created in cooperation between the Institute of Public Affairs and the College of Law.

The question is what kind of industry do you want to attract to the state? If you are attracting the right kind, those who head the industry are going to want to know what is the nature of education in the community, are the ordinances codified, is the city zoned, what are the health measures, what is the quality of health service, and what kind of education is available. There are all kinds of ramifications through which the university can augment what the development commission does. And I think there must be a close cooperative relationship between the universities, and I use that plurally, as well as the private colleges of the state with many of these public agencies who are performing particular functions that need not necessarily be duplicated by the university in order to make them effective, but always buttressed and supported and helped through the institutions. I see this as a proper role for the university to play in terms of its relationships to these other urban agents.

There are still others—the whole communication industry with communications centers, television stations, and this kind of thing. Mr. Bebout did not mention this tonight, but he did write about it in this article. Here is a perfect outlet in terms of communication between the institution and the people of a state, area, or region that in turn can make a vast difference in terms of the kinds of services they will expect and the kinds of support that, in turn, they can give to those who are expected to provide the services. It is a two-way street.

I think that the question of what are the ten most important urban questions facing Iowa today is a very good one. And I think that another seminar or conference ought to be devoted to trying to figure out what those ten most important questions are. If you go to the development commission they will tell you the question, obviously, is to attract industry to the state. If you go to the commission on health they will give you another answer. If you go somewhere else in terms of other specialties you will get a variety of answers. And I think here the role of the university as a convener can be exceedingly important because you've got to understand one another's problems.

Now when I mentioned alcoholism, I didn't mean this was the number one problem in Iowa. I think probably, however, there are

fifty thousand people in the state who meet the definition of an alcoholic. Let me tell you why I think this is an important urban problem. Dr. Mulford, of our alcoholic studies area, was telling me that last year there were probably four thousand alcoholics diagnosed in the state. They were diagnosed by medical people and told where they could get help. Only three actually arrived at centers where they could get help. Now why did that happen? Well, because a whole variety of agencies have been set up now that are concerned with this problem. It's a social welfare problem. It's a health problem. It's a problem that Alcoholics Anonymous is concerned with. It's a problem that a whole variety of people are interested in at the community level. But they're not together in terms of how a community handles its problems. Now I think something can be done about this. It takes a different kind of approach than it does to upgrade city managers, if you will, in terms of what may be the latest word from the federal government on urban renewal and so on. It's a different kind of thing. Because you've got some experts already on the scene, you provide a different kind of service too. I think this is the distinction that I'm trying to make.

MR. BEBOUT

I'd like to add to that. We have tried to identify a list of the most important problems, but we've never been able to get two people to agree on the list. Some of you have heard about the urban observatory idea that Professor Robert Wood at MIT came up with. This idea has been brainstormed now for the last several months with some of the mayors. And we've had two or three meetings in which we discussed this question of what are the most pressing or important urban problems on which some regional information and research centers might be helpful. I must confess that we've got very little in the way of coherent agreement, if I can use such an expression, on this. The nearest to an agreement that we've been able to get, as far as I can see, is that the real tough problems of the mayors in this day are ones which we call social problems. Now, that's not too helpful, but this is about the sharpest answer we've been able to get out of several of the mayors.

This, incidentally, confirms, I think, the wisdom or good fortune of the Urban Studies Center at Rutgers, which is heavy on sociologists and which has been concentrating on social or human problems of our cities. The engineering problems and others are better taken care of elsewhere. The focus on just which social problems, at which moment, must necessarily be, I think, a matter of opportunism. We

became heavily involved in the antipoverty program because here was a strategic act with obviously a lot of resources going to be available. A friend of mine in Newark took me over the coals at dinner the other night for having neglected "the most important urban problem." Well, what was "the most important urban problem?" Educating the cops! We should have invested a substantial part of our resources in educating the cops of the city of Newark. After all, this is right in the middle of the civil rights problem and so on. Sure, this is important. I think the cops ought to be educated. But if we spent the amount necessary to do what he wanted done, we wouldn't have been able to do much else. But, this is a touchy question. You'll never get 100 per cent agreement—or even 50 per cent.

MR. RINARD

Perhaps what I was trying to say earlier, Mr. Bebout, was that from the standpoint of a layman looking at the extension service from the outside, the whole set of objectives of government needs constant definition and redefinition. This should be the function of the university, I would think. We are going to get ploughed under with this agentry and programism unless we keep getting these things into perspective. This is what, it seems to me, is a function of the university. Whether it's extension service or not, I wouldn't know. But if it is the extension service, then your objective, your role of general education as a role of the extension service, would seem to me to be comparatively under-emphasized in your presentation and in your article.

MR. BEBOUT

I think that Dean Ray gave the answer here in pressing the need for flexibility. If we are going to be able, over time, to make the best use of what are necessarily limited resources, we've got to preserve our freedom to maneuver and our flexibility so that we can move from one target to another fairly quickly and easily and not get trapped in a bureaucratic necessity to do something which may be good, but which may be something sombody else could do just as well, or better.

MR. RINARD

May I use an actual example from what you just said? At the university you've done some magnificent research on alcoholism—not just this year or last year, but for a number of years. But how much help has been given in the here and now to people who are ill and thrown in the drunk tank? How much help is being given on the community level to people who should be seeing somebody about

their problem and don't even recognize it? All I'm saying is that the twain hasn't come as close as I think it should come.

MR. BEBOUT

I agree. I think it's all a matter of the scarcity of resources.

DR. RAY

This is exactly what I was trying to say. We now have a body of knowledge about this that makes a lot of sense. A lot of people need to be informed about this, and people who play certain roles with regard to the problem need to be aware of what other people are doing, and there needs to be a concentrated attack. It needs to go to law enforcement officials, social workers, and so on. So that there is this meeting of the twain. I think that this is exactly the point I'm trying to make. We are now at a point where I think this is a matter that ought to receive this kind of extension effort—taking what we have learned in the laboratories and in the research that has been done on this score, and making it meaningful and useful. This, after all, is really a definition in a sense of extension. And I agree with you in terms of that problem. But I'm saying that this is one illustration of how perhaps now we can move forward on a particular kind of problem, integrating university resources that involve alcoholism studies—the School of Social Work, Bureau of Police Science, Institute of Public Affairs, and so on—making this a kind of cutting edge. It's one of the things that we ought to look at. It may not be the most important, and the extent to which resources are available to go into this, is a question that has to be explored. But it's the kind of moving frontier that I think we are ready to take some kind of positive action on. In other words, I think you and I are in complete agreement. Those who are out in the communities have not been made as aware, as perhaps they should be, of the splendid things that are going on in alcoholism research here. Now the question is how do you find the proper vehicle to get that done. Here, I think, is where the university can play a role as convener, as researcher, and probably in terms of some kind of solid action program. For the first time, we have a commission on alcoholism in the state. For the first time we have another kind of vehicle with which to work in attacking this kind of problem.

MR. BEBOUT

While we're on the alcoholic bit, and since we're in the Yale Room, I can't refrain from volunteering the assistance of the Center for Alcohol Studies at Rutgers. It is at Rutgers precisely because the

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management at Yale decided about three or four years ago that it wasn't really very respectable for university people to talk directly to doctors, police chiefs, and other such questionable characters on such a subject as alcoholism. It was all right as long as they were just engaged in research. But more and more Yale University became embarrassed at the extension activities of this Center, and so it moved to Rutgers where it found a hospitable environment.

AUTOMATION AND EMPLOYMENT

HOWARD R. BOWEN*

Because of my recent work on the National Commission on Technology, Automation, and Economic Progress, I have been asked to speak on Automation. At first glance, this subject may seem remote from urban policy. But as I proceed, the connections will become evident.

One of the most widely accepted of present-day opinions is that we are going through a period of accelerating scientific and technological advancement. This opinion is sometimes expressed as "the explosion of knowledge," "the second industrial revolution," or "the automation revolution." It is argued that old trends have been interrupted since World War II, that we have broken through to a radically accelerated rate of advancement in scientific knowledge and in technology, that we have emerged into a scientific and technical world that is *qualitatively* different from that of the past. These views have, of course, derived from a series of spectacular and highly publicized innovations, among them, TV, nuclear energy, Salk vaccine, and space travel. Many believe, however, that the key innovation of the new era is the electronic computer which, it is said, will make possible fully automated push-button production.

The idea that we are in a new scientific and technological era has aroused people's imaginations, has fostered thousands of science fiction books, and has led to expectations of a better life ahead. In fact, as recent polls have shown, the majority of our people welcome technological change in the belief that it will improve human life. Nevertheless, the belief that we are entering a new scientific and technological era has aroused much concern and fear.

*President, The University of Iowa, and Chairman, National Commission on Technology, Automation, and Economic Progress. Because of illness Mr. Bowen was unable to be present at the Conference. His paper was read by Chester A. Morgan, Chairman, Department of Economics, The University of Iowa

First among these fears is that the new weapons created by modern science and technology will destroy the world or cripple civilization. This fear was aroused by the discovery of nuclear energy, and is surely not completely unfounded.

A second fear is that rapid and widespread technological change will require social adjustment, especially in the form of the mobility and retraining of workers, beyond our capabilities, and that substantial and increasing numbers of workers will therefore be unemployed. Sometimes this fear includes the idea that the new technology will offer no place for the unskilled and the uneducated, and will leave a large residue of unemployables until education and acculturation can catch up. The fear relating to the adjustment problem is certainly not an irrational one. For centuries, technological change has brought with it the need for adjustment—often painful adjustment. There is no reason to suppose that this need will diminish in the future. So we have every reason to extend education and acculturation in our society, especially to minority groups, and we have every reason to facilitate necessary mobility and retraining of workers.

A third fear is that with the new technology the economic system will be capable of producing more goods than can be consumed, and that an increasing fraction of the labor force will become redundant and unemployable. This fear seems to most economists unfounded. While one may question the ultimate value, in an already affluent society, of doubling and redoubling the gross national product, there has been no evidence of the inability of the American people to consume or use all they can produce. Moreover, the needs of the underdeveloped world are so great that the idea of world-wide overproduction seems unthinkable in the foreseeable future. A variant of this fear is that technological change will result in shortened hours and increased leisure and that human beings will be unable to derive meaning from their leisure equivalent to that derived from their work. This argument has a strongly Puritan flavor, yet I must confess to being moved by the old adage that "Satan finds some mischief still for idle hands to do."

A fourth fear of the new technology is that it will reduce the worker to a robot who no longer makes meaningful decisions or possesses significant skills or expresses his personality through his work. It is sometimes argued that even the manager—at least the middle manager—will become a robot who merely grinds out decisions from computers rather than expressing his personality and judgment through his daily work. This fear includes also the idea that decisions relating

to education and employment—intimately affecting personal welfare —will be computerized, and that individual choice and human emotion will be squeezed out of our lives. Closely related to these concerns is the vague fear that life will become mechanized and "artificialized" so that the human being will be alienated from his fellow men and from nature. I am personally uncertain about the validity of this fear of depersonalization. I do not know whether technological change will increase or decrease average skill requirements; as good a case can be made, I think, for the view that skill requirements and the meaning of work will be enhanced by technological advancement as for the reverse view. Certainly it seems to me that technological advance has eliminated much monotonous, back-breaking, and degrading work and can eliminate much more. In fact, I consider this one of the most valuable results of technological progress. On the other hand, I must confess to a vague concern about the adverse effect of computerization and automation on human individuality. At least, I feel that if we lose the human touch in our work, we shall need to compensate by finding new kinds of meaningful human experience in our non-economic activities.

These several fears have been aggravated in recent years in the United States by the fact that we have a stubborn unemployment problem. According to official figures, ever since 1958, unemployment has consistently ranged from 5.2 to 6.8 per cent of the labor force. This period was one of rapid automation in a number of leading industries, and so the opinion gained ground that the unemployment was due basically to technological change. This in turn led to demands that hours should be shortened, that adjustment mechanisms (such as employment service and retraining of workers) should be strengthened, and that unemployment insurance, severance pay, and other forms of income maintenance should be augmented.

Analysis also revealed that, despite a shortage of skilled labor, unemployment was concentrated among untrained youth, Negroes and other minority groups, women, and the aged. While unemployment was negligible among married, white, males most of whom are at least semi-skilled, it was clearly concentrated among workers who were vocationally and culturally marginal. Among some of these groups, e.g., Negro teen-agers, the unemployment rate was as high as 30 per cent. With the increasing number of young people reaching employable age, it was expected that the situation would become progressively worse. These facts led to the opinion that technological change was squeezing out the uneducated and the unskilled, and that through

technology we were rapidly producing a class of unemployables. These same facts led to the suggestion that a crash program of education and retraining, along with shortened hours and earlier retirement, would be necessary.

Though people may legitimately disagree about the statistical techniques used to measure unemployment, in my opinion there is no question but that we have had a hard core of unemployment, and that we need to take prompt and positive measures to overcome it.

If we are to take the appropriate remedies, however, it is important to diagnose the cause correctly. I question whether the primary cause of our hard-core unemployment has been a speeding up of technological change, as is so often alleged. I shall try to explain how I reach this conclusion.

To begin, it is well to recognize that other advanced industrial nations have not experienced hard-core unemployment in the past decade even though they have been advancing technologically. Whereas, the unemployment rate in the United States has been from 5 to 7 per cent of the labor force, the rates in leading foreign countries (computed in the same way) have been from 1 to 3 per cent. The rate in 1964 in Italy, France, and Great Britain was a little less than 3 per cent; in Sweden and Japan, less than 2 per cent; and in West Germany one-half of 1 per cent. In some of these countries there is even a severe shortage of unskilled labor as evidenced by the fact that thousands of South Europeans and North Africans are being imported to augment the local supply of unskilled workers. In Switzerland, these immigrants constitute more than one-fourth of the whole labor force.

Second, I question whether the rate of technological change is significantly more rapid than it has been in the past. Here I approach dangerous territory, as the evidence is not conclusive and people feel very strongly on both sides of this question. The problem is complicated by the fact that there are many conflicting definitions of technological change, and that there are no fully applicable statistical data. One's view of the matter, therefore, tends to be somewhat subjective. What I am about to say on this matter, then, represents only one man's best judgment, and you are surely entitled to disagree.

I would define technological change broadly to include introduction of new products, improvements in old products, and adoption of new methods of production. I would include in new methods of production not only those involving machinery but also those involving organization, management, worker motivation, etc.

We have witnessed in recent years some striking and glamorous new products such as jet aircraft, space vehicles and missiles, TV, computers, nuclear energy, and Salk vaccine. And we all have the feeling that more of these marvelous innovations lie ahead. Yet, when one puts these recent innovations into perspective, one realizes that the history of the past two centuries in Europe and America has been replete with new products. Our situation is not necessarily different from that of our ancestors who saw the introduction of the steam engine, the railroad, electricity, the telephone, and the automobile, to name only a few. Ours is surely not the first generation that has adjusted to, and benefited from, the introduction of dramatic technical innovations. In terms of human values and satisfactions, the new products of our day may be contributing less than those of earlier generations. The steam engine surely represented a greater change than the jet engine, the automobile than the jet airplane, coal-generated electricity than nuclear power, the printing press than TV, etc. The earlier innovations transformed the economy from local agricultural villages with animal power and handicraft to great interdependent national economies with cheap inanimate power, complex technology, rapid transportation, high productivity, and minute specialization and division of labor. What we are doing now is not to transform the whole fabric of society, but to modify the details of an industrial society already well established. For example, the jump from horse power to steam power carried implications far beyond the transition from coal power to nuclear power. Or the effect on society of the introduction of the railroad and steamship was far beyond that which we are experiencing with the airplane. To the innovations of the eighteenth and nineteenth centuries, the term industrial revolution seems eminently appropriate; to the innovations of our time, technically marvelous though they are, the term industrial evolution seems more accurate.

Let me turn now to product improvement as another form of technological change. We have all witnessed innumerable improvements of products. We need only compare the modern motor car to the tin lizzie, or the modern record player to the old Victrola, or the modern nylon hosiery to silk stockings to appreciate the progress in quality. In appraising this progress, however, we have to recognize that quality has deteriorated in some lines, especially in some service industries and in some areas where craftsmanship is important. Moreover, we must distinguish between changes in models and changes in quality. Nonetheless, any reasonable observer would concede that enor-

mous qualitative progress has occurred. I find it difficult to believe, however, that the overall rate of this progress has speeded up in recent years. It would seem to me that product improvement has been going on for a long time and that what we experience is a continuation of long trends. This, however, is an opinion that I cannot document, and represents the weakest link in my argument.

The third kind of technological change, improvements in productivity, is amenable to measurement. It can be measured in terms of product per man-hour of labor employed.

Let me review the record briefly.

Output per man-hour from 1909 through 1963 increased at the average rate of 2.4 per cent per annum (compounded annually). From 1909 to 1947, the rate was about 2.0 per cent, and from 1947 to 1963 it was about 3.0 per cent. At first glance, it would seem that there was a fairly sharp break in the trend at the time of World War II. Since the war the rate has averaged half again as high as before. A major part of this break in the trend was due, however, to recent spectacular developments in agriculture. Output per man-hour in agriculture which had increased by only 1.3 per cent a year from 1909 to 1947, increased by 5.7 per cent a year from 1947 to 1963. The rate of progress in the non-agricultural sector was 1.9 per cent a year from 1909-1947 and 2.4 per cent a year since 1947. In other words, the difference in productivity per man-hour between the pre-war and post-war periods is less striking for the non-agricultural sector separately than for the agricultural sector.

Since the growth of productivity per man-hour is influenced by the level of overall prosperity, it is useful also to compare the prosperous post-war period with a pre-war period of high employment such as the 1920's. It happens that the gain in productivity from 1919 to 1929 was about the same as that of the post-war period 1947 to 1963. In fact, the gain during the 1920's in non-agricultural productivity was actually higher than in the post-war period.

To complicate the matter further, there is some evidence that there has been a gain in productivity per man-hour in the past three years. If this evidence is confirmed, it will tend to support the view that technological change is accelerating. However, at the same time the rate of gain in non-agricultural productivity appears to be past its peak and may be subsiding.

The conclusion from these data is that the long-term trend of productivity per man-hour may have been upward, especially if agriculture is included, and almost certainly has not declined. But there is

too little evidence to conclude that a sharp and persistent increase has occurred. My personal view is that the relatively high increase in non-agricultural productivity since World War II is more largely the result of a continuing boom of unprecedented duration than of a new breakthrough in the rate of technological advance. I would hold to the view that the most striking feature of the productivity data (over the whole period since 1909) is the stability of the trend in progress rather than acceleration of the rate.

My general conclusion about technological change of all kinds—including new products, improved products, and new methods of production—is that the experience of our generation is really not so different from that of our parents and grandparents. I am much more impressed by the continuities and the essential steadiness of the trend in technological change than I am by the alleged technical revolution.

There are those who might reluctantly agree with this analysis of past trends but would argue nevertheless that we are on the verge of a new technical age that is being ushered in by the computer with all the possibilities it presents for automation. I see the computer as a powerful tool of wide application; I am sure there will be advanced automation in many industries. But I do not see this as a break with the past. The adoption of labor saving and automatic production has been going on for generations. I see the computer as just one more step in a familiar process.

In my conservatism regarding the future, I am influenced also by the fact that technological change, like all other aspects of production, is subject to diminishing returns. As scientific knowledge has progressed, and more and more applications have been made, the cost of each subsequent technological advance becomes greater. It was once possible for a lonely inventor in a bicycle shop to achieve major breakthroughs. Today, we need great R and D laboratories, with fantastically expensive equipment and personnel, to achieve even minor technological gains.

What I have been saying about technology may be compared to geographic discovery. When European men began to get the idea that new lands might be found, and they ventured forth, they could scarcely avoid discovery. Columbus, for example, went out with only the vaguest idea of where he was going, and achieved great discoveries (though he never knew what he had found). As discovery has proceeded over the centuries (on sea, on land, under the sea, and below ground) more and more has become known about the world, and it becomes increasingly difficult and costly to make new discoveries. So

it has been with technical knowledge. Once people got the idea of applying scientific knowledge to economic affairs, they began making discoveries. First, they made the more obvious and easy discoveries. As these were exploited, new ones became increasingly difficult. The inventors had to go figuratively to the top of Mt. Everest, to the South Pole, to the floor of the sea, to discover new technology. Each additional discovery became more costly in effort and skill and sophistication of method. In fact, I sometimes think we fail to distinguish technical sophistication from economic and social significance. For example, in talking over these matters with a medical friend of mine, he responded, "The greatest medical advances of the past century have been the adoption of the wire mesh screen and the sanitary sewer. The advanced techniques like open-heart surgery or cobalt therapy, while technically miraculous and crucial for some patients are of really minor importance to the health and longevity of the population." In short, as we have had to work harder and dig deeper for each technical innovation, the radical breakthroughs become more difficult, and our efforts result instead in improvements and refinement.

May I return now to the main thread of my argument. I have tried to show that our unemployment problem is probably not due primarily to a speeding up of technological change or automation. I have mentioned that technologically advancing foreign countries do not have a comparable unemployment problem, and that there is some doubt as to whether the rate of technological change is accelerating anyway. I would also argue that the unemployment problem is not due to lack of skills or lack of education within our labor force.

It is true that the unemployment is concentrated among the inexperienced, the uneducated, and the minority groups who are subject to discrimination. This is not new. Whenever there is unemployment, the least capable or the least acceptable are the ones who tend to be laid off first and re-employed last. If there were enough jobs in our economy, these people would find work. The overwhelming evidence is that people can be trained quickly for semi-skilled jobs if the jobs exist and employers need workers. The experience of our economy both at the beginning and at the end of World War II attests to the speed with which our people can be mobilized if there are jobs. At that time, housewives were trained in two weeks to become riveters in aircraft factories or assemblers in electronics factories, thousands of previously semi-employed farmers were trained in a few weeks to become factory operatives or to handle complex military equipment.

And so I reach the conclusion that our problem is not technology. It is to adjust our fiscal, monetary, and labor policy so that we create demand for all our workers. There is so much that needs to be done in America, including much that needs to be done by unskilled workers, that there is no excuse for our tolerating persistent unemployment of several millions of persons, and in particular no excuse for using technology as the whipping boy and cover-up for failures of policy in other areas.

When I mention the things that are needed in this country, I refer of course to housing, urban renewal, improvement of transportation, water supply, elimination of air and water pollution, development of our natural beauty, education and research, and health services. We need these things, many of which would employ our common labor, just as much as we need to go to the moon, which employs only our skilled and professional manpower.

Our space program, like our military effort, represents a close teamwork between industry and government. The first man in orbit got there because business and government were working together to put him there. Neither alone could have done the job. The same is true of many of our earthbound needs. These are goals that neither business nor government could achieve alone. They take a partnership of the two. In particular, they take the courage on the part of the government to cut taxes and to increase public expenditures until there are enough jobs to put all our people to work. There is plenty for them to do, without invoking such palliatives as shorter hours, or earlier retirement, or various make-work and relief programs.

I have been impressed by a recent study of the National Planning Association which attempted to measure the cost of following the recommendations of President Eisenhower's Commission on National Goals. This Commission, consisting of a distinguished group of citizens, attempted in 1960 to define the basic long-range goals of the United States. The National Planning Association then attempted to measure the cost of achieving these goals by 1975. The conclusion was that the cost would be 15 per cent beyond our economic capacity. In other words, to do the things that are needed in this country will require all the labor and capital and know-how we can muster. To leave some of our labor idle, as we have been doing for more than ten years, can only be regarded as a dereliction of responsibility.

The analysis I have presented does not in any way argue against improvements in the structural adjustability of our economy. We need to improve our employment service to help people find jobs quickly,

we need to strengthen our unemployment insurance and other forms of income maintenance so that individuals do not suffer needlessly through economic changes beyond their control. We need to improve and extend our education and training. We need to encourage economic development in the underdeveloped areas of our own country. We need to overcome barriers of race and religion which prevent some groups from participating fully in our economy. All of these things are needed for their own sake as well as to increase employment.

But these things will not solve the unemployment problem. What is needed is to increase the total demand for labor through government fiscal policy, and to use this labor to produce the things most needed by our society. One way would be to cut taxes and give people more money to buy the consumer goods they want. Another way would be to hold taxes steady and increase expenditures for such public purposes as urban renewal, housing, resource development, improvement of transportation, etc. My personal judgment is that this country today needs the things that can be bought through government spending as much as it needs more consumer goods. I would hope, therefore, that we might accomplish both purposes, by increasing public expenditures for development of the public domain. In this way, we would at the same time create employment, add to personal income available to buy consumer goods, and move ahead on projects urgently needed for the development of our country. If we were as eager to clean up our cities and improve our country as we are to get to the moon, and would use the same imaginative methods, including advanced technology and scientific knowledge, our unemployment would largely disappear and we would make a good start on the solution of social problems which we all know have been accumulating through years of neglect.

FISCAL IMPLICATIONS OF URBAN DEVELOPMENT

HARVEY E. BRAZER*

I

Urban development may be defined as change over time in the socio-economic characteristics, quantitative and qualitative, of urban communities. These communities, as in the case of the larger cities and balanced smaller municipalities, may be the seat of manufacturing, trade, transportation, finance, business, utility, professional and personal services, and government, as well as the place of residence for the families of some or all of those employed in these activities. Alternatively, the municipality may be functionally highly specialized —most often as a residential suburb and less frequently as an industrial enclave within a metropolitan area. There is also wide diversity among municipalities with respect to their spatial relationship to other communities. They range from the large core cities of the major metropolitan areas to the isolated market town or county seat, some of which have been experiencing rapid growth that is expected to continue, while others are in a state of steady decline. And growth or decline may take a variety of forms, each with its own secondary and tertiary kinds of repercussions.

My purpose in pointing up the multi-dimensional nature of urban development is to emphasize the fact that generalizations about its implications—fiscal or any other—may easily be misleading and, if one is careful, are difficult to draw. The only safe answer to the question "What are the fiscal effects of urban development?" is "It all depends." And this, of course, is no answer at all until one specifies what "it" depends on.

In order to reduce the question to manageable proportions I shall assume initially that our concern is with a municipality which still

*Research Associate, Institute of Public Administration, and Professor of Economics, The University of Michigan

contains vacant land available for either residential or non-residential use and that similar land is available too in areas adjacent to it. Let us further assume, generally, that development means growth. I shall examine first the fiscal implications of population growth and then take up expansion in the community's industrial base. In the last section I shall turn to some problems relating to complexities of urban development in metropolitan areas.

II

For local government, people, in general, are fiscal liabilities. That is, the local share of the costs of providing urban services and education typically exceed the tax contribution of residential property. In 1963 the average value of owner-occupied non-farm homes in the United States was $15,400, the average value of rental units was substantially less than $15,000, while the average urban property tax rate was about 2 per cent. Thus housing units contribute an average of about $300 each per annum to services carrying a local tax cost per family and unrelated individual of over $400. (Non-property taxes account for only 15 per cent of total local taxes.) The difference is, of course, accounted for largely by taxes on non-residential property.

For any one municipality, however, the fiscal impact of population growth will not necessarily be adverse. And some kinds of population growth will bring greater fiscal difficulties than others. Two primary determinants of the fiscal consequences of population growth are the level of income and the age or family cycle stage of the population increment.

Higher income ordinarily means a larger per capita tax base and lower density of land use. The latter may impose higher capital costs for certain utilities and street construction and lighting, but it will also mean less demand for parks and other local public recreation, and lower costs for protection services.

Young families with school-age children obviously bring costly demands for education and require more recreation services than do older people.

Clearly the population growth that is most wanted for fiscal gains consists of older, high-income people with a strong preference for large lots and big, expensive houses. Younger people with school-age children are likely to bring fiscal losses even when they occupy homes worth as much as $40,000 or $50,000, for the property tax on such homes will ordinarily not pay for the primary and secondary school

education of three or more children over a period of fifteen years, let alone cover the costs of municipal services.

The foregoing simple facts are, of course, especially familiar in a large number of residential suburbs and in municipalities, like Ann Arbor, which are favored as places to live by employees and executives of newer industrial plants located in outlying rural parts of metropolitan areas, commonly served by an inadequate school system and lacking in urban amenities.

The fiscal impact of population growth *per se* will depend not only on the income and age of the new population but also, at least for a time, on the rate of that growth. If growth is slow and substantial excess capacity in the school and municipal services plant is available, the incremental costs of serving the new population may be far less than average costs, and fiscal gains may be realized. But once capacity is fully or over-utilized, incremental costs will equal or exceed average costs and such gains must turn into losses. Rapid growth imposes fiscal strains sooner and tends to prevent any subsequent slackening in fiscal pressures. This, again, is a situation familiar to rapidly growing residential communities all over the country.

The rate of population growth may also be important in another way. Rapid growth may introduce social and cultural conflict if the new group differs sharply from the old in its characteristics. This may impose greater demand for protective services and thus raise municipal costs, but if it reduces the homogeneity of the population it may, at the same time, increase decision costs and lead to a lower quality and reduced quantity of public services. On balance, therefore, it is difficult to foretell the net effect on expenditures per capita of rapid population growth when it is accompanied by increasing heterogeneity of the community.

Unfortunately, losses in population do not change the negative fiscal signs associated with population gains to positive ones. Social overhead costs cannot ordinarily be reduced and excess capacity in the educational and municipal plant cannot be quickly abandoned, if at all.

Thus both sets of communities, those losing as well as those gaining population, face fiscal difficulties. The solution to these difficulties is most frequently seen by local authorities in the entry into the community of new or expanded industry and commerce. That this is not always the solution has been learned by many. Let us turn now to

examination of some of the factors involved in the fiscal implications of industrial and commercial growth.

III

Assuming, first, that a new industrial plant brings no increase in the community's population, either because it employs only people who had been unemployed or because all of its employees live elsewhere (a highly unlikely prospect), that plant can ordinarily be expected to add more to local government receipts than to expenditures. Under most circumstances, that is, industrial, and probably commercial, property will, taken by itself, improve the fiscal position of the local governmental jurisdictions in which it is located.

But the net gain is invariably less than the gross gain—most obviously because some public services will be demanded in the form of police and fire protection, traffic control, and so forth (I assume that water supply and sewage disposal are self-financing). There are, in addition, some less obvious fiscal repercussions that may further reduce net fiscal gain. These will be experienced indirectly as a result of the effects on surrounding property values of the location of the plant in the community and as a result of its operations. The familiar case of the junkyard needs no elaboration, nor does the case of the plant that pollutes the air or creates traffic congestion. More subtle, perhaps, are the adverse effects on land values that arise because owners' expectations regarding land use have been disappointed. An industrial plant built in close proximity to high-valued residential land may reduce the value of that land by a large fraction of the value placed on the tax roll by the plant itself. If this disappointment of expectations is coupled with substantial external diseconomies associated with the production process—noxious odors, smoke, noise, aesthetically revolting appearance of stockpiles of raw materials, and so forth—the net effect on local tax receipts may even be negative and the fiscal loss may loom large when the costs of public services required by the plant are added.

The foregoing is meant only to point up the fact that industrial growth need not, in itself, bring a net fiscal gain, and that even when it does that gain is likely to be substantially less than the immediate increase in tax yield. Clearly it suggests that a community is likely to find its fiscal position improved to a degree that will vary directly with the success it can achieve in prohibiting the emission of noxious fumes and smells, in zoning and planning, and in inducing industrial firms to place a high value on the aesthetic aspects of their properties. Unplanned or poorly planned industrial and

commercial growth, and overeagerness to attract industry, expressed in excessive willingness to engage in spot zoning or to amend zoning ordinances capriciously, and in willingness to permit fouling of the landscape as well as air and water, may bring fiscal losses rather than gains. Even clean, light industry may prove fiscally unattractive if improperly placed within the community.

IV

Assuming now that planning and zoning are well managed, and dropping the assumption that the work force of new industrial plants is drawn entirely from the unemployed or from neighboring communities, we may turn to the more realistic setting in which urban development, interpreted as industrial growth, brings an influx of population with it. This is, of course, a more complex as well as a more realistic setting.

It is obvious that fiscal gains arising from industrial growth will be greater where the work force is drawn from the unemployed, from those previously not in the labor force, and from neighboring communities than where that work force is made up of new migrants to the municipality. But given the proportions in which the work force is drawn from each of these four sources, the demands of the plant for public services, and its repercussions on local land values, fiscal gain associated with industrial growth will be a function of the input mix employed by new industry and the wage and salary rates paid.

The input mix may be land intensive—using much land and relatively little capital and labor—as in the case, for example, of a tree nursery; capital intensive; or labor intensive.

Since high labor intensity means large numbers of people employed per dollar of capital and land, and only the new capital is added to the tax roll, labor intensive industry is least likely to bring net fiscal gains. As we have seen, employees and their families drawn to the community are highly likely to impose a fiscal drain, and with little capital per worker employed the industry is not likely to offset this drain. If, for example, we assume a 2 per cent effective local property tax rate and that each employee and his family occupies a housing unit worth $12,000, even if the plant demand for services were zero it would take more than $10,000 of capital per employee to finance the local tax costs of municipal and school services. The actual numbers will vary widely among communities, of course, but the general nature of this kind of test for fiscal gains is of interest everywhere. The test may be refined by taking into account tax

contributions and service demands of a secondary and tertiary kind, those involved in the provision of trade facilities and personal services for the new population, but any net gain to be found here is likely to be minimal.

The extensive use of land relative to labor and capital may add even less per worker to the local tax base, and for any given value of output the fiscal gain may be less or the loss greater than in the case of labor-intensive industry. The outcome will depend upon the capital to labor ratio in the two cases and upon the relative level of wages and salaries paid. Where vacant land is scarce within the jurisdictional boundaries of the municipality, the fiscal opportunity cost of land intensive industrial growth may be high indeed if it displaces more capital intensive industrial land uses that otherwise would have occurred.

What is wanted, of course, for maximizing fiscal gain, is the fully automated industrial plant that employs no workers at all. It must also be so placed, designed, and landscaped as to enhance adjacent property values while consuming its own wastes, emitting no noise, and imposing no demands for public services. In these days of high employment in almost all communities, coupled with expenditure demands that are constantly outrunning tax receipts at existing rates, this is the plant that every city mayor, manager, and council and every local school board dreams of adding to the tax base.

While such a plant may remain a dream for some time to come, the next best thing from the standpoint of fiscal gains arising from industrial growth is the highest possible value of capital employed per worker and per acre of land occupied, and high wages and salaries. Higher earnings of employees generally mean higher-valued homes and a smaller net fiscal loss per household added. Higher earnings add also to whatever fiscal gains may accrue from the larger volume of business done by those with whom the new households trade and from whom they purchase services ranging from haircutting to banking and medical services.

V

Thus far I have omitted reference to the fact that urban development today takes place primarily within the boundaries of our more than 200 standard metropolitan statistical areas, each with at least one city with a population of more than 50,000 and complex economic and social relationships among communities lying within the county or counties that define it. Generally, within the larger SMSA's, in addition to the core city we find suburbs that are primarily resi-

dential in character, some that are primarily industrial, and still others that may resemble closely the core city itself in their balance between industry, trade, services, and residential land use. In this kind of urban area, developments that assist one community to meet its fiscal problems may impose fiscal hardship on neighboring jurisdictions. Interjurisdictional equity issues arise concerning the core city in its relationships with the suburbs and the suburbs in their relationships with each other.

With the property tax the principal or only source of local tax revenue and residential property, in the absence of extremely high tax rates, incapable of meeting the demands for municipal services and education, the most serious urban fiscal difficulties arise where industrial growth adds to industrial property values in one municipality and to population in another. And a great deal of discussion has justifiably focused on the fact that many central or core cities are in difficulty because they have been losing both industry and population to the suburbs. The space requirements of modern industrial plants cannot readily be met in the older central cities, and even where sufficiently large land parcels can be assembled at reasonable cost the problems of traffic congestion and outmoded utility facilities may dictate location of new plants in suburbia. The central city tends increasingly to become the location of business activities of a highly specialized nature, involving high labor intensity, with heavy demand for public services and low contribution to the property tax base. Fiscal problems are intensified here as the core city population shifts toward a higher concentration of minority groups with low income and cultural deprivation that increases social conflict and adds to demands for public services. Thus even when population decreases total costs tend to rise rapidly.

Some observers see a solution to the fiscal problems arising out of urban development in our metropolitan areas in consolidation of governmental jurisdictions through annexation, merger, federation, assumption of responsibility for major functions by the county, and so forth. This approach is appealing because it would permit rational area-wide planning and zoning, because it may make available some cost reductions through realization of economies of scale, and because it permits sharing of both the area-wide tax base and responsibility for supplying municipal and educational services to high-cost elements of the population. But in consolidation some jurisdictions necessarily would experience fiscal losses while others would be better off, and values associated with local self-determination may be

lost. Thus conflicting interests exist and stand as a barrier against widespread prospects for rationalizing local government and attempting to solve fiscal problems through this route. It follows, therefore, that solutions must be sought within the context of existing jurisdictional lines.

Apart from the question of interjurisdictional equity, the prospect of each local unit being able to meet its needs primarily or solely through reliance on the property tax is dismal indeed. The capacity of the property tax to provide the needed revenues is limited by interlocal competition for industry and wealth and by the nature of the tax itself. Inequalities in assessment abound and inequities become increasingly difficult to live with as tax rates rise. Furthermore, the property tax on residential property is highly regressive and constitutes a discriminatory levy on shelter which, when seen as an excise imposed at a rate equal, on the average, to about 20 per cent of annual rental values, seems extremely harsh. It is certainly in conflict with the social values expressed in our efforts to subsidize housing through public housing programs, insurance and guarantee of home mortgages, and the deductibility of property taxes and mortgage interest under federal and state income taxes. As a tax on business property it discriminates sharply against the use of capital and, in general, in the case of both business and residential property, it imposes a heavy penalty on improvement and maintenance.

Where, then, can we look for means of solving the fiscal problems of urban development? It seems to me that the answer lies in the hands of the states and in the local individual income tax.

But the states too are hard pressed, subject to limitations imposed by the openness of their economies and inter-state competition, as well as constrained taxing powers in many cases. To an increasing extent, therefore, funds will have to be found through the tapping for state-local use of the superior taxing powers of the federal government, preferably through the distribution of unconditional subventions such as are suggested in the so-called "Heller Plan." With or without such subventions, however, the states must recognize their responsibilities toward urban communities. Solution of the fiscal difficulties I have outlined will require that the states increase substantially their financial assistance to local governments, and that they do so through plans which are so designed as to recognize clearly in the distribution formulas used variations in both local need and fiscal capacity. Many states have moved a long way in this direc-

tion with respect to school aid, but very few have tackled directly the parallel problems associated with municipal services.

The local income tax is a second promising fiscal tool. It can be at least a large part of the answer for the core cities of metropolitan areas, since it permits them to reach the commuting labor force which is increasingly engaged in the production of labor intensive services. Similarly, suburban residential communities, forced to provide costly educational services for households in which the property associated with the breadwinner's job is located in another jurisdiction, can look to the income tax as a desirable supplement to the property tax and state aid. Perhaps the least justified claimant to the yield of the income tax is the heavily industrialized suburb. Ideally, therefore, we should want to devise a priority system under which the central city is permitted to tax all income earned within its jurisdiction by residents and non-residents, while suburban communities are restricted to taxing only the income of residents. This would impose a tax penalty on those who work in the central city and live in the suburbs, since they would be called upon to pay two local income taxes. But this may be justified by the increasingly unique nature of the economic functions, urban amenities, and fiscal responsibilities of the central city.

Employment of other non-property tax sources of revenue may help as well. The most promising of the possibilities are user charges and local supplements to state sales taxes. Neither of these, however, can contribute as much or as well to the solution of the fiscal problems discussed here as the judicious resort to increased state aid and the local income tax. On the other hand, sole or even primary reliance on the property tax is as much out of place in the urban America of today as is the horse-drawn plough in the rural-agricultural society for which that tax was designed.

GUIDING URBAN DEVELOPMENT

Coleman Woodbury*

Most discussions of urban affairs seem to me to suffer from vagueness or misunderstanding of differing definitions as to what is urban. What is a city, or an urban area, or urban center? What, in my subject for today, is urban development? Hopefully, let me try to tell you briefly what I am going to try to talk about.

It has been suggested many times that a city or urban center has at least four aspects, or facets, or dimensions: physical, economic, governmental, and other social. The physical city is simply land, buildings, utility lines, and other facilities in and through which urban dwellers carry on their multifarious activities. It is a gigantic and complex plant in the sense in which we speak of a manufacturing plant as distinguished from the corporation that owns and operates it and that corporation's stockholders, officers, employees, credit, good will, etc., that make it a going concern.

The city economic is made up of groups and organizations of people tied together in a network of laws, contracts, and established practices and engaged in the production and distribution of goods and services both within the urban area and outside of it. Although some evidence indicates that economic activity and opportunity are the principal forces in urban growth and decline today, most urban areas, even the largest and most complex, are less systems or subsystems economically than they are in other aspects.

The governmental cities usually are, of course, congeries of local governments and of public and quasi-public agencies. Most of them are corporate legal entities with various powers, functions, and responsibilities. More and more, however, agencies of the state and national government are becoming parts of the governmental city

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*Professor of Urban and Regional Planning, University of Wisconsin

as they offer and administer a growing range of financial aid programs as well as provide directly some services and facilities, for example, major highways within urban areas.

The other social city—other because of course economic and governmental cities are in the basic sense of the word social—is made up of economic and social classes and the more or less organized groups and associations that urban residents belong to, identify themselves with, and that in many ways, direct and indirect, shape their attitudes, opinions, and values and sometimes act as their fronts or spokesmen. These groups, in various stages of growth, equilibrium, and decay range, for example, from a suburban neighborhood property owners association to the Friendly Sons of St. Patrick, from the local medical society to the Catholic diocese, from the chamber of commerce or labor union council to the humane society or settlement house.

This clearly is an elementary and rather crude breakdown of urban activity and phenomena. It can remind us, however, of the amazing variety and changeability of urban life and alert us to the possibilities of misunderstandings in the use of such phrases as urban development, urban planning, or urban politics.

Like all similar forms of elementary description or analysis, however, this one can be misused. Two examples of this may be noted. It should be obvious that the four cities are not separate discrete entities; they are simply different aspects of the complex reality. They are tied together and influence each other in almost numberless ways—some easily observable, others more subtle or little understood. Nevertheless, both in academic courses and in the realms of practical programs and policies, we too often see one or another of the four cities treated more or less as if it were an independent entity and its ties to the others neglected or minimized. Also, the least satisfactory and often misused category is that of the physical city. One whole school of city or urban planners prides itself on being physical planners, despite the fact that over the past four or five decades it has done more to redefine property rights in urban land than any other group. And quite aside from the planners we often see and hear programs of what are usually called public works and improvements proposed, opposed, and adopted with little explicit or serious attention to their effects on the economic, governmental, and social cities.

Nevertheless, I would suggest the physical city is the most dependent of the four. Essentially it is the aggregate of all the capital equipment in the facilities, public and private, provided to make

possible and to facilitate the functioning of the other three cities. It should be judged in these terms. It has little or no validity or significance except when so considered. For this reason I prefer to call it the capital facilities city, and the rest of this paper will be concerned with its current development. In so narrowing my subject, I am not overlooking or denying the crucial importance of changes now under way and in prospect in the economic, governmental, and social cities. As should become apparent, they lie behind and largely define major issues in guiding the development of the capital facilities city. With this focus then, I propose to outline for you: (a) some trends in current urban development, (b) some of the tools of guidance now at hand or in the making, and (c) a few of what I think to be major issues of public policy in this process of guidance. In the time available, I can offer only an outline and a sketchy one at that.

As everyone knows, since World War II we have had a building boom. In the terms of this paper, it has been predominently an urban capital facilities boom. Although it has been much more than a house building boom, one measure of its tremendous volume is the fact that the number of non-farm housing units started since the war is about 75 per cent of the total number in existence—the so-called standing stock of housing at the end of the war. In eighteen or nineteen years we have built in this country three-quarters as many houses, non-farm houses, as we had built in the preceding centuries—whether you go back to the pilgrim fathers, or Captain John Smith, or Christopher Columbus, or Leif Ericson, or the Etruscans. Since the last war we have built 75 per cent as many non-farm houses as we had accumulated in the previous decades, generations, and centuries.

Another rough indicator is the increase in the outstanding indebtedness of local governments in this country. In 1950, this debt amounted to 18.8 billion dollars. In 1962, it was 59.1 billion—an increase of 40.3 billion or 268 per cent in twelve years. This certainly is urban capital facilities development with a vengeance. I would suggest, however, that the volume of units constructed, or capital outlay made, is less significant for our discussion this afternoon than the fact that a very large part of this volume went, and is still going into, the standard metropolitan areas outside of their central cities. The result is what Luther Gulick and others have called a new pattern of settlement—the dispersed urban area or spread city. No one who has recently driven through and around many urban areas or

flown over them in fairly clear weather will need to be persuaded on this point.

Perhaps one or two bits of evidence may be interesting. Of the 212 SMSA's of 1960, with the boundaries of the central cities held as they were in 1950, that is not taking account of annexations, the rate of population increase from 1950 to 1960 outside the central cities was forty times that of the central cities themselves. Of the more than 200 central cities, fifty-six, including most of the very largest, showed actual decrease in population during that decade. Although I know of no comparably inclusive data on the non-residential forms of development, we do know from observation and many local studies that the trend toward dispersal also runs strongly in retailing and more and more in wholesaling and storage facilities as well as in many forms of manufacturing and fabricating.

Because this general trend is so clear to any reasonably alert observer, and recently has been talked and written about by many people, I don't wish to seem to be belaboring the obvious. Unfortunately, however, much of this discussion has been more notable for heat than light. Just look at the terms used. If, on the whole, one looks with favor on this trend he speaks of deconcentration or maybe decentralization. If he dislikes it, he refers to it as urban sprawl, scatteration, or the rise of the slurbs. And the discussion also is marked by more than a little special pleading. Consider, for example, the uncontrolled mourning one frequently hears over the impending death of our cities. If he reads a little further, it turns out that this phrase is a synonym for changes in the mix of land uses in central business districts and their environs in central cities.

Or, one may ask, why some writers on the subject are trying so hard to perpetuate the image of all suburbia as the fiercely guarded preserve of the snobbish rich. Possibly this was not too far from the mark some decades ago, although even this is debatable. Today, however, this characterization of the populations in metropolitan areas outside of their central cities is simply silly on its face. In 1960, about two-thirds of the population of the country lived in SMSA's, almost equally divided between the central cities and the area outside of them. There are not just anywhere near that many upper-income WASP's, and by no means all of them live in suburbia. If you want it in figures, the suburban population in 1950 was just short of fifty-five million people, and to imply that these fifty-five million, or any substantial proportion of them, are upper-income exclusionists has just missed the entire character of recent suburbanization.

Let me, therefore, conclude this sketch of the urban dispersal trend with a few statements for which, despite our ignorance of the whole subject, at least a prima facie case could be made if time permitted. Of course the strength of this trend varies from urban area to urban area. It is not limited, however, to the very largest metropolitan areas by any means, and many of the urban areas that do not qualify in the census definition of metropolitan show these trends very strongly. It is by no means a simple phenomena and the factors I have tried to indicate are the net results of many flows and counterflows, some of them very poorly understood.

It is useful to subdivide the metropolitan area outside of the central cities into the suburbs, that is the areas which are more or less densely built up and are a part of what the census calls urbanized area, and the less densely built rural urban fringes. In the 1960's, apparently the total population increase, not the rate of increase, in the rural urban fringes was somewhat less than twice that of the suburbs. Quite possibly a substantial part of the fringe increase was in do-it-yourself housing by relatively low-income families. Apparently, the outward movement of families often is not in one big jump from the older obsolete central districts of the central city to the suburbs or beyond, but in two or more jumps.

Query, does this suggest that our current forms of urban development are self-defeating? As residential areas mature they *ipso facto* lose their attractiveness for many people. One characteristic of the major population moves is that they are selective. More and more, they seem to concentrate in the central cities the rich, the poor, and the childless; in the suburbs the middle and lower middle-income families with growing children; and in the rural urban fringes a large range of families from the very rich on their estates to the very poor. Recent and current dispersal, largely unplanned and unguided, plus the hodgepodge of local government jurisdictions equally or even more hit or miss, combined, produce some weird contrasts in land use patterns and in property tax bases among nearby or even adjoining cities and villages. Mr. Brazer referred to that this morning, of course. Although we know distressingly little about what lies behind, and in some sense causes, dispersal, it is clear that what *Fortune* once called the American's love affair with his motor car is only one of several contributors, and probably not more influential than several others. Finally, as might be expected, some reverse flow of population is taking place. It is, however, relatively small and the most recent sample study I have seen indicates the high probability that

urban residential dispersal will continue strong for at least the short range future. If any of you are interested in that study, see Lansing, Miller, and Barr, *Residential Location and Urban Mobility*, published last year at the Survey Research Center at the University of Michigan.

At a conference sometime around 1930, a well-known city planner read a paper on his observations and criticisms of his profession. Among other things he pointed out that city planners, city officials, and others concerned with urban development were much given to talking about use districts: single family use districts, industrial use districts, unrestricted use districts, etc. "But," said this gentleman rather plaintively, "no one talks about the biggest use district in nearly all cities of any size or age." "This," said he, "was the what's-the-use district"—the great, largely built up, more or less stagnant, partly obsolete, and deteriorating areas that housed a very large proportion of most urban populations and their economic activity. The city planners and other worthies apparently had few if any tools to do anything worthwhile in these districts. Worse, most of the planners had simply neglected these areas and more or less openly shrugged off their problems. They did not even have any ideas as to what the future might hold for these districts, or what public policy should be in respect to them, or what legal or other tools might be necessary. Although, of course, this rather harsh indictment did not apply to all city planners or city officials, at that time it was a just judgment in respect to many of them.

Today, however, officials in more than seven hundred cities, under the banner of urban renewal and with the help of Uncle Sam's ample purse and fallible administrators, are trying to come to grips with the questions and problems of these erstwhile what's-the-use districts.

Of course urban renewal, with or without federal aid, is a very complex undertaking that sooner or later encounters puzzling policy issues and formidable difficulties in planning and administration that throw into painfully sharp relief our deep and widespread ignorance of much of the anatomy, physiology, and pathology of current urban development. Even to list these issues and problems with any useful degree of clarity and specificness would take more time than is available for all of this section of your conference. Let me, therefore, conclude this part of my paper with three brief statements that I believe would be approved by most students and thoughtful administrators in the current program. First, any effective renewal program in a city of any size and complexity calls for the continuing, active,

collaboration of many departments and units of local government in addition to the actions of the urban renewal department or authority itself. This collaboration often should, although it seldom does, involve planners and other officials of municipalities nearby or adjoining the one in which the redevelopment is to be carried on. Second, although the federal aid program got off to a slow and fumbling start, over the past four or five years its administration has improved markedly both in many localities and in the urban renewal administration. Despite its detractors, this program, or a reasonable facsimile of it, seems likely to be a prominent part of the urban scene for many, many, years to come. Third, although a superficial first glance has led some people to say that urban renewal is an anachronism in an urban age dominated by dispersement, this is a clear example of the either/or fallacy. There is no reason why a renewal program should not be planned and undertaken concurrently with measures for the guidance of dispersal. In fact, in a rational world this combination would be the typical one. Well, enough for urban renewal.

The next trend that I would call to your attention is of a different order. A few years ago I tried to discuss it briefly in another context. Let me quote a paragraph:

> A fairly long look backward at urban affairs can help again here. Not only have urban governments greatly increased the range and variety of their activities since the turn of the century, but during approximately the latter half of that period many of these newer activities have had to do quite directly with the physical and social development of their communities. For example, zoning, now dealing with localities, in some localities with non-conforming uses and the aesthetics of building as well as with the classes of land used and the characteristics of improvements, subdivision control, public housing codes, commission on race and intergroup relations, public housing, major highway and transit networks, urban redevelopment, which is now clear is more than putting up new buildings in place of old ones but cuts deeply into the social and political fabric of some districts and through displacement and relocation of families affects many others. Public activity of this kind almost literally hits people where they live. It helps determine the characteristics and quality of residential districts, the attractiveness of an urban area for various industries and businesses, the distribution of purchasing power within subareas or districts of the main area, how one goes to work and where, who his neighbors are or are

likely to be, etc. Of course, individuals have considerable ranges of choice, varying usually with their income status, as to where and how they live. But it seems undeniable that today public policies and actions play a considerable part in determining the qualities and ways of urban life, and in fact, a much greater part than they played a generation or two ago.

One of the great students, cum practitioners of urban affairs of the past generation, Charles E. Merriam of the University of Chicago, often used the phrase "emerging trends" in this or that field. Some of his many friends found this mildly amusing and liked occasionally to twit him about it. "How in the world," they would inquire, "could anything that is just emerging be called a trend?" "After it has been established as a trend, by no stretch of the English language can it be said to be emerging." Dr. Merriam would smile rather quizzically and reply in effect, "Well, if you're nothing but a statistician, of course there's no such thing as an emerging trend except perhaps in retrospect. On the other hand, if you are a really alert and sensitive student of housing, or public finance, or whatever the field in question might be, you ought to be able to make a pretty good guess as to whether change is simply a chance development, a flash in the pan, or is based on an idea whose time has come and has a good chance to pick up momentum and support." Maybe so. Dr. Merriam was a very shrewd and wise man.

Some close observers have noted recently, frequent, but not overpowering, signs of growing public concern and participation in questions of urban development. My guess is that this is an emerging trend, but I could wish that I were more certain about it. If it proves to be a trend, even if not strong in all urban localities, it would be an event of real significance. Just possibly it could enable those officials who are trying to guide urban development in the direction of what they take to be the public interest, to develop constituencies of some size and power. If this could be done, the chances would be much brighter that at least some of these officials and their allies could really guide the development of their localities rather than simply collaborate with the inevitable, as someone has put it. It also might enable these responsible officials to make clearer and wiser judgment as to the nature of that elusive but compelling goal which we call the public interest.

These, then, are four of what seem to me to be the major components in the climate or environment in which urban development is proceeding today: a strong push toward the dispersed or spread

city; a still creaking and sputtering but potentially powerful and improving program of urban renewal that has the basic strength of being aimed at a serious need; a well-established growth pattern of public activities and services that, whether one likes it or not, does have substantial consequences in urban development, with some intended and some unexpected side effects; and an emerging trend of public concern, often not well informed and with participation often rather clumsy in some of the issues of urban development.

Let me now turn to a quick description of some of the principal means or tools now available for this task of guiding urban development. In a recent paper which I would recommend to you, Professor John W. Reps of Cornell suggested that the means of shaping urban development could be usefully compared with the guidance systems and subsystems of space satellites. Having thus embraced the most expensive, and therefore the most fashionable, boondoggle of our day, he apparently thought he must have an acronym for his system just as NASA has for its. So he wrote down the names of its principal components: Advice, Control, Inducements, and Development. This gave him his acronym—"A" "C" "I" "D"—acid—which is as he remarked, "unfortunately not very inspiring but it does tend to burn itself into one's memory."

In my opinion this is not a bad summary of the kinds of tools public agencies now have at hand to guide urban development. Perhaps Professor Reps might have added, even at the cost of scrambling his acronym, another "I" for information and "E" for easement. Periodic information on changes—and let me emphasize that—periodic information on changes in housing needs and demands in various categories, and population distribution also by categories, and industrial and commercial and governmental employment, in birth and fertility rates, and in-migration to localities, etc., might have more influence than would at first seem likely. I would emphasize that these data should indicate changes at regular and not too infrequent intervals rather than the occasional still-life photo of land use patterns, population density, and traffic volumes on main street that in the past have made up so large a part of many planning agencies contribution to the public enlightenment.

One needs be under no illusions as to the limited influence of such a flow of information. I am suggesting it might have some direct effects, not only on private developers and promoters, but probably more leverage through mortgage and commercial bankers who are urban development guiders whose roles should not be overlooked.

Easement for conservation purposes, for protection of scenic values and roadside amenities, for assuring public access to special recreational areas, and for establishing green belts around major population concentrations, have come in for considerable discussion lately. Again, they are no panaceas but they would seem to deserve further exploration and trial. Of course, Professor Reps is quite aware of these possibilities. He subsumes them under his categories of advice, control, and inducement. I simply suggest that they may deserve a little more prominent billing.

It is clearly impossible in a paper of this kind to go into any useful discussion of the many and various devices and methods that have been developed over the years in the major components of Reps' "acid"; even listing them would serve no purpose. The other members of this conference surely know their names as well as I do. Instead, let me call your attention to the rather curious present position of the most common control measure, zoning, then mention one new device or procedure that John Reps also recommends, and conclude this section of the paper with a few observations on the urban planning process which seems to me crucial to any effective use of this kit of tools.

Zoning has often been called the workhorse of land use, or in our terms, of capital facilities planning. Over some thirty years or so, roughly from the mid 1920's to the mid 1950's, its form and practice became quite well standardized. To be sure, it was the subject of considerable litigation, but the high courts almost unanimously recognized the need for police power regulation of land use, and a large proportion of the cases turned on questions of due process and alleged arbitrary and unreasonable action by administrative officials. After the war, however, and particularly over the past ten or twelve years, zoning thought and practice have livened up astonishingly. It has been applied in more than a few jurisdictions for purposes that earlier practice had carefully avoided—carefully and deliberately avoided. Thus, we now have, for example, provisions for the elimination of non-conforming uses; for aesthetic control and preservation of districts of historical or architectural interest; for exclusive industrial and agricultural zones for limiting or slowing down urban development in some districts in order to funnel it into others than can be supplied with public utilities of acceptable standards; for allowing in predominantly residential districts some commercial and industrial uses that are under certain standards or limits as to noise, smoke, traffic generation, etc.; for waiving some detailed

regulations for large scale building projects on condition that they meet more general standards of population density, off street parking, etc.; and in these cases granting considerable discretion and approval to the planning department or administrative agency.

Of course, all this is presenting more questions to the learned courts, to the added displeasure of some of them. The volume of cases on such measures, decided by appeals courts is not yet sufficient to allow any generalizations. But at least some competent land use lawyers believe that the outlook in the courts for these advances or changes in zoning is not too dark.

During this same period, however, zoning has come under a broadside attack by a considerable number of city planners, occasionally joined by other city officials. It is alleged zoning is *passe*, or that it never was of much use and now does more harm than good, or that it has not been and cannot be effectively and intelligently enforced, or that it makes for mediocrity and stifles imaginative and innovative design, or that it lends itself too easily to many covert local policies of segregation and exclusionism—so-called snob zones, or that it undercuts intelligent urban planning by giving large segments of local populations the protection they want in their residential districts and thus reduces the chances of planning and action on other, and quite possibly more urgent issues in the locality development.

Some of these complaints and criticisms clearly are directed against misuses, deliberate or otherwise, of zoning and some point to weaknesses in traditional practice that some of the recent experiments are trying to cope with. An example of the former would be snob zoning, usually in the form of requiring a zoning ordinance or subdivision regulation with minimum lot sizes so large that they effectively rule out all but expensive houses and therefore exclude from the locality all except families of very substantial income. The latter is illustrated in the section on ordinances on large-scale developments which clearly recognize that the usual requirements for setbacks, side and rear yards, devised to apply to lot by lot development are often not appropriate in such building complexes as shopping centers or cluster housing developments.

Other criticisms, however, seem to be more substantial. One of these is the sad state of much, I don't know how much, administration of zoning ordinances. In a commendable, in fact necessary, attempt to provide some flexibility in cases of unusual and unnecessary hardship, zoning ordinances almost always provide for a board

of appeals or a board of adjustment often composed of lay citizens appointed by the mayor or other chief executive. In recent years almost every informal session of shop talk I have been in with practicing planners turned sooner or later to illustrations of how boards of appeal, in many cases aided and abetted by city councilmen, are making a mockery of the zoning ordinance for anything beyond a single family house. It is not really a public control device. It's simply the starting point for negotiations between the promoter or prospective developer and someone representing the city, usually starting with the board of appeals.

I offer these comments on zoning not because we contrive here to unravel all or most of the problems they indicate, but because almost certainly zoning ordinances and administration are due for serious examination in cities all across this country in the next several years. Although substantial revisions would seem to be in order, we should look at some of the more extreme views with a careful eye and be sure we do not throw out the baby, or the workhorse, with the bath water. In the article referred to earlier, Reps puts forward very succinctly a proposal that he and others have talked about for some time. It would extend the development component of "acid" quite considerably but I commend it to your consideration. He wrote that he would go much further in the direction of public development and use some modification of redevelopment techniques at the urban fringe. To be specific, some public agency with metropolitan jurisdiction, might acquire land; plat it; provide street, utility, park, and other needed improvements; and then convey lots, blocks, or neighborhoods to private builders for development as planned and as controlled by these restrictions. This would accomplish three things. It would provide a public yardstick operation against which purely private land development activities could be measured. It would establish a more precise tool of environmental control and guidance, and it would paradoxically enough aid private enterprise in the competitive market by making it possible for small builders who cannot afford the uncertainties and costs of the modern scale of land development to stay in business.

If we had time to explore in some detail how the fifteen or twenty common tools of "acid" are being used and could be applied in the context of rapid urban dispersal, the need for renewal, the increasing influence of public programs, and our emerging trend of public concern and participation, I feel certain that all of you would agree that any effective guidance of urban development requires the prepa-

ration, discussion, revision, and adoption of the grand strategy of public policy in action that takes account not only of how well specific measures seem to achieve their purported ends, but also and equally important that takes account of the side effects each has on the others, on private activities, and on the values and ways of life of all residents of the urban locality. Except for the crucial step of adoption, the name for this process is planning: urban development planning, urban capital facilities planning, or just plain urban planning. As this overly long sentence may suggest, this is a subject that one should only announce and point to unless he and his hearers are ready for hours or even days of discussion. Drink deep or taste not ought to be, but practically never is, the guiding principle for consideration of planning. Having reminded myself of this sound advice, may I now proceed to ignore it to the extent of offering you a slightly more formal definition of urban planning and a few comments on it.

In my view, urban planning is the process of preparing, preferably in advance of action, and always in a reasonably systematic fashion, the recommendations for policies and courses of action to achieve accepted objectives in the common life of urban localities or communities. In preparing these recommendations, careful attention is paid to the probable by-products, side effects, or spillover effects of the courses of action proposed. At its present stage of evolution, urban planning is primarily concerned with seven substantive areas and I am only going to list these because they are old hat to most of you. First, of course, is land use—the site for all kinds of public purposes: schools, parks, playgrounds, etc. The allocation of land for private development to sizeable use districts within which the real estate market continues the allocation process. Second is standards for development and maintenance of land improvements, made effective through police power controls and various inducements. Third is circulation, the trade name for space and facilities for moving goods and people. Fourth is the economic base of the locality, how it may be diversified or otherwise strengthened. Fifth is capital programs, scheduling public investment on the basis of available funds, and other resources and estimates of the relative urgency of need. Sixth is the special problems of urban renewal and redevelopment. Seventh is site planning, most often as a reviewer and analyst.

So conceived or defined, urban development planning is by no means all of the planning that is done in an urban locality or even in its governments. Functional or operating departments of local gov-

ernments, that is departments of public health, for example, or water supply or streets or highway departments plan for their objectives. So do semi-independent *ad hoc* authorities. So do civic and quasi-public organizations concerned with urban public affairs. So do many private enterprises having to do with urban growth and investment.

Urban planning is not some mystic rite, neither is it large-scale architecture nor the tracing of a blueprint, nor a social snake oil good for all the ills of man and beast. It is not antithetic to the principles or functioning of our mixed economy, nor to the political processes of a democratic society. It is only one part, although a significant and increasingly necessary part, of the more inclusive process of policy formulation. It strengthens those components of that process that try to identify reasonably sharp and specific goals for programs, to weigh alternative measures as fairly as possible, and to look ahead at least beyond the next fiscal year or election day. As my friend, John Gaus, once put it so beautifully, "Planning is an attempt to improve the making of decisions."

Finally, I come to four issues or questions in the guiding of urban development that in my opinion deserve your special attention. Of course the subject fairly bristles with issues and problems and these are not the only ones and perhaps not even the most significant ones. I have time, however, for only four and these are at least of first-rate importance. The first is how, in urban and metropolitan areas, we can assure a reasonable conformity of development planning on the one hand and the use of police power controls as well as financial and other inducements to development on the other. As a consequence of urban dispersal, both in its more sedate forms of some decades ago and in its manic phase since the war, in nearly all metropolitan and many smaller urban areas the sensible, and in fact, the only effective area for capital facilities planning is the extended urban area itself. Although this elementary fact is widely agreed to practically everywhere, most of the control, inducement, and development powers are in the hands of component parts of this area, usually cities and villages. And the rest of these powers are exercised by *ad hoc* single purpose districts and authorities. Because much urban planning hinges on the relationships between population distributions and shifts on the one hand, and existing and proposed capital facilities for transport, housing, recreation, and so forth on the other hand, the present distribution of responsibilities and powers in many areas is simply a prescription for frustration. The most intelligently prepared and elegantly tooled plans can be

turned into waste paper by contrary zoning and other action by a minority of the so-called civil subdivisions of the area. And they are under no legal obligation, and often under no other kind of obligation that they recognize to pay any attention to, let alone be guided by, the recommendations of the area-wide planning agency. Of course this has been said literally thousands of times, but it is no less true for that fact and no less significant for those who care about the future urban areas of this country. About all that has been done about it, however, have been the invention of a few harmless devices for assuring that the metropolitan planners know what the cities and villages are doing or are about to do and vice versa, and a kind of euphoric reliance on platitudinous statements to the effect that the area-wide planners should produce general plans and the local officials should guide land use and public investment "within the broad framework of the area-wide plan." Unless we can do better than this, however, the quite impressive gains that have been and are being made in the methods of planning analysis and preparation will be largely wasted.

The second issue turns on the question: On what grounds of principle or policy do urban agencies and officials decide to use police power measures or the purchase of property by private treaty or by the use of eminent domain in guiding urban development? For example, when and in what circumstances do you protect an unusually scenic view by zoning out billboards and when do you try to achieve the same end by purchasing a scenic easement? Or, when do you apply a housing code to try to force a property owner to bring his substandard apartment or tenement up to minimum standards of health and safety, often at the cost of several thousand dollars, and when do you purchase his property for cash either by negotiation or eminent domain as part of a clearance and rebuilding project in an urban renewal program? It would be easy to add other examples. As the range and acceptable purposes of police power measures have been expanded, as has also the use of the public purse for similar purposes, the boundaries of these programs often seem to overlap, sometimes quite seriously. I suggest that this issue is a proper concern, not only of property owners, but also of all those who believe that something called justice is an important consideration in public affairs as well as those who believe that public programs of urban development are difficult enough right now without adding to their opposition by a real or apparent capriciousness in the selection of means to their ends.

A third issue is of a different order. Does the intelligent guidance of urban development require the selection, fairly early in the game, of some overall spatial pattern or configuration for an urban area toward the realization of which all or nearly all public programs and policies should contribute? I have two or three pages on this but this is an issue of importance, in my opinion, primarily and maybe only for the very largest metropolitan areas. And because I'm running behind time let me cut it out.

The fourth and final issue is whether the impending automation of large sectors of our economy will drastically affect the forces that shape our urban areas, and if so, what planners and other guiders of urban development should be doing or preparing to do about it. While we didn't go into it, I happen to believe—and many veteran foreign people do too—that among the most powerful forces in urban dispersal as we have seen it in recent years has been the increase in the amount and the wider distribution of leisure time. As you believe that, then you can't contemplate the prospects of a heavily automated sector of our economy without asking yourself: "What is that development going to do when it hits the urban area?" To date this subject has received amazingly little attention in these circles, these circles being the planners and urban officials. Perhaps this is due in part to the pressure of other issues, perhaps in part to the fact that the effects of automation on urban capital facilities structures will depend largely on its intermediate consequences in such areas as the amount and distribution of leisure time, the employment potentials of other, some perhaps new activities and those automated, the expansion of public employment, the distribution of income, etc., plus of course public policies and institutional changes that may be made in response to these others. In this intermediate realm we seem to have mostly opinions and guesses, some patent evasion, and little or no consensus. Of course, having looked at the program of this conference, I hope to know more about this major impending force in urban affairs when I read this paper than now when I am writing it. (This is a note to myself about 2:30 a.m. the day before yesterday.)

Of only one thing am I reasonably certain—the consequences of automation for urban form and structure will not be neutral or negligible. I think President Bowen's paper this morning might be taken to dispute that, but nevertheless I feel that that's true—that the consequences of automation for urban form and structure will not be neutral or negligible. As a result of it, plus the considerable changes

already under way, our cities looked at as patterns of capital facilities in the last years of the twentieth century will be as unlike those at the end of the nineteenth as they in turn were unlike urban centers near the end of the eighteenth century. The basic question, perhaps, is whether we have learned anything from the sorry story of the nineteenth century urbanization or whether we will repeat with modern variations, of course, the same stupid round of shortsighted, timid, too little and too late actions and leave to our successors of the twenty-first century a noisome and unholy mess. If this happens, of course, our helpless successors will face an even more awesome job of renewal or redevelopment but may console themselves with the thought that we have presented them with the nearest approach in social affairs to a formula for perpetual motion. More seriously, can we not formulate and prosecute programs and policies of urban development that will take at least some of the sting out of that observation that in public affairs in this country we never have time to do anything right but we always have time to do it over.

Well, my topic, just to remind you, is guiding urban development. This word "guiding" is a very popular one among planners and planner types. It is a rather pleasant word. It suggests a degree of competence, a kind of a friendly relationship, and it is much admired and much used among the planning fraternity. Finishing this up the other night, for some reason I was reminded of a story of another type of guide, the redoubtable Daniel Boone—the great frontiersman, explorer and later guide for many people from the eastern seaboard into the Kentucky region and beyond. And the story, probably apocryphal, was that one night when Boone was guiding a party of people through a pretty wild area, but one through which he himself had gone through many times over many years, one of his clients around the fire in the evening asked the redoubtable Daniel if he had ever been lost. "Nope, never," said Boone, "but several times I was a bit confused for a few days." Well, I think in guiding urban development I perhaps have demonstrated to you that confusion often goes with the guiding process, but I do commend to you the continued consideration of this subject and I am grateful to you for listening so patiently this afternoon.

THE POLITICS OF URBAN DEVELOPMENT

Scott Greer*

George Santayana says somewhere: "I believe that there is no God and that Mary is his mother." The statement is an application of Santayana's general proposition that it is perfectly possible for people to believe and to not-believe simultaneously. This is where most ideographic analyses of political behavior fall flat on their face.

For example, in studying the reasons why the voters rejected the metropolitan district plan for the metropolitan St. Louis, Missouri, area we found some very recurrent arguments which went like this: We believe in integrating government so that we can have more efficiency and get more done, and we believe in keeping government close to the people in small units. We believe that public services should be improved at a rapid rate to take account of what we can afford and the number of people there are here, and we believe that taxes should not be raised, indeed they probably should be lowered.

We also found that the willingness to accept change, as measured by a sample survey of the same people two years before the referendum on the district plan, had almost no predictive value whatsoever as to how these people would vote when they were presented with the district plan. They had a choice of the constitutional possibilities; one of these constitutional possibilities was chosen for the new charter. There was a random relationship between whether one chose this possibility or other possibilities two years earlier and how one voted on the district plan. It was defeated as you may or may not know by an overwhelming vote—two to one in the city, and three to one in the suburbs. In our follow-up interview immediately after the election, we found that the people who had voted overwhelmingly against the district plan were overwhelmingly in favor of greater metropolitan governmental integration.

*Director, The Center for Metropolitan Studies, Northwestern University

Now, this is unimportant in some types of political systems but it is fairly important in ours. Underlying the way we run the railroad, the way we originally laid out railroad tracks, and the possibility of changing the layout of the railroad tracks are certain factors, certain very fundamental aspects of American political society. And I say political because this is what we are really talking about here today. We are not talking about managing banks. We are talking about managing cities, and managing cities is always political whether it is overtly so or not.

These factors begin with the most obvious level, the constitutional structures. Many people in political science and social science generally tend to "throw the constitutional structures away." The reasons for this are fairly simple. At one time about all we did was to study constitutional structures. You know we didn't advance beyond Aristotle until some thirty or forty years ago. But we threw the baby out with the bath; those constitutional structures are quite important, as you find out if you decide that you want to change the structure of local government. If you want to change the rules of the game so that the game can be played a little better, you are going to run head on into the constitution which has not only what you might call substantive terms but also has operating rules which determine how you change it.

These constitutions tend to be frozen. The difficulties of changing charters for city, county, or state government are very great. Why? Because these constitutions amount to frozen versions of *political culture*. As Mr. Brazer said in a memorable phrase this morning, they freeze the local tax structure to something that's appropriate to the man with the plow, in a society where the man with the plow is an anachronism. They are frozen political norms from the past, which, by the way, are supported by the existing political culture of the living. If they weren't, it would be a good deal easier to change them.

What is this political culture? What is it that people share in terms of belief systems and notions of what's right and proper? Well, there have been many lists of American traits in politics—how specifically American one does not know—but the two things that interest me because they have important structural consequences for any move that we make to try to control our environment, to intervene in our affairs in terms of some sort of reason, are dichotomies. One is the split between the local and the national communities. It is the notion that somehow legitimacy for the local area is best organized by the

local population in that area. I think it is an effort to translate the general notion that the legitimacy of governmental action rests upon the consent of the governed through the device of using a spatial area to aggregate people. One can immediately, of course, start seeing the limits of such a definition; spatial areas do not include many or even most of the critical aspects of people's lives and so forth. Nevertheless, this is a very strong and very deeply held norm, the notion that somehow or other the local area should have in certain areas a very strong degree of autonomy. So strong is that that even though, constitutionally, most cities are nothing but creatures of the state, you will find that when you try to change the state's control over cities there will be a most peculiar phenomenon in the legislature. People will start defending the moral, and if they are ignorant, the legal right of cities to self-government when they have no legal right and no necessary moral right; it's a presumption. So, in the same way, the increasing importance of the national government is resisted in a "we group–they group," or "in group–out group" formulation and consequently we find, in an extreme, cities which owe 80 to 90 per cent of their economic base to the inputs from the national government the most rabid in biting the hands that feed them. The thing I don't understand is why the national government is so interested in feeding the mouth that bites it. I mention here the centers of Senator Goldwater's strength in the late lamented election; they were all wards of the federal government.

The second split in our political culture is the sharp line we attempt to draw between private enterprise and public enterprise. The general rule here is that anything that makes a buck goes to private enterprise. Anything that is a net loser goes to the government. Mr. Moses has even shown us how to discriminate more finely. He found a few things that made money in public enterprise and turned it into a private enterprise. Now the consequences of this show up very clearly when one takes a fairly close, even though in this case a rather casual, look at one of our efforts to intervene in our collective destinies in terms of some moral norms that we have about what those destinies ought to be like. Here I'll talk about the urban renewal program and I'll hedge my bets a little by saying that I finished my field work some three years ago and I have only a mild interest in the continued career of the enterprise now.

When I first went into the urban renewal program, I was rather confused as to just what determinants were determining. I finally said: "Well, I think I'll look at it from the point of view of inter-

vention, which is first legislated aspiration." In the beginning all that you have is a bill that gets through Congress. Now, there are always complex factors producing that bill and that bill is apt to set some pretty definite limits on what you can do. And I said: "I think I'll look at the social structure that takes that organized and legitimated aspiration and turns it into a program that destroys *these* buildings on *this* block in *this* town, and try to find out how you process those directives and those powers. Then I think I'll look at what happens in these towns in view of the enormous trends in American society which are rather difficult to turn aside with any instrument as puny as urban renewal but which most certainly are going to set the limits within which urban renewal can operate."

As I did this, I discovered that in one's beginning is one's destiny. The way the Housing Act is written, urban renewal cannot be a decision made by a federal agency in terms of the United States as a whole or even in terms of a metropolitan area as a whole. It is initiated by the locals; they have to put up earnest money, and earnest money politically, saying that they will do such and so. They propose, the federal agency disposes. Sometimes it disposes badly, as in the case of Wink, Texas. Sometimes it disposes well, as in some of the Little Rock projects. But it does not go out and attempt to plan for a national society, which is what we are, nor even for a metropolitan conglomeration, which is where increasingly more of us live. It is a kind of tug of war between the locals and the feds. The locals are interested in getting what they want in terms of what can be done in their town, which is always a balance of pressures. The feds are interested in getting something off the drawing board to show a program so that they will have some reasons for arguing for a bigger appropriation the next time around which is, I think, understandable.

Going a little further on, urban renewal as a program has not been planned in terms of using the powers of the government. It has been planned in terms of using no more of the powers of government than are absolutely necessary and, in fact, not even using them when they are necessary. So, the urban renewal authorities cannot *build* one thing. They can destroy, they can juggle costs, and they can sell to private enterprise. If you want to nit-pick, you can say: "Well, they can mess around putting in sewers, put in a post office, and so forth." But that isn't going to make much difference in your town, which means that the urban renewal program must be couched to meet the demands of the private real estate market, which is what

got us in our present situation in the first place. Minor gains can be achieved I am sure—we can prevent four service stations on one intersection—that's worth doing; it's probably not going to create a beautiful city, however.

The program as it began out of the hurly-burly of the political process was a program interested in increasing the supply of decent, safe, and sanitary housing during a period of housing shortage. At the same time, people became vaguely aware of the fact that many parts of the center cities, especially some of the older cities, are getting old and that poor people live in older parts of the city. So they create a poetic term—slum—for these parts of the city. They say: "We want to do away with slums." So we start out with a program, away back in '37, which is still the most sensible program in my view, consisting of destroying substandard housing and replacing it with public housing under the presumption that people who lived in that housing probably didn't have a lot of money to spend on housing beyond what they were spending. Therefore, we were going to have to subsidize them if we wanted them to live in decent, safe, and sanitary housing.

This program however, did not continue to generate political support as the temporarily declassed were jacked back up into prosperity with the boom of World War II. Increasingly, public housing became the societal wastebasket for the old, broken families, deviant, poor, and particularly colored, people. So in most public housing programs, even in the North, you will find that your public is primarily Negro and that those 20,000 people on the waiting list are almost all Negro. We have such waiting lists in a number of cities that are going very slowly in building new public housing.

Indeed, the public housing program has been hexed politically because of a very basic schism in the society. During the depression when most of our major welfare programs were started, we had a very temporary situation in which a very large percentage of the voters needed welfare and needed it bad. Today we have a situation in which the poor are a minority group without much in the way of real gut allies. There is nothing to create an ally for you if you're poor like somebody else's poverty; it's somewhat different in kind from the wishes of people who are in favor of good things in general.

The housing goal has shifted rapidly toward another goal—and I don't want to go into the complex history which has not yet been written but which I think I understand (Mr. Woodbury would know it much better than I—) in which people, starting with slums and

welfare interests, translated these into aesthetic problems and commercial problems and the whole surge began to be one toward center city revitalization, particularly central business district revitalization. This is a kind of interest group behavior which I think is fairly easy to understand at a superficial level. A great many people have sunk big investments in the center city. These range from property owners to center city newspapers who, in some cases, are feeling pressure from the suburban community shopping news. A little less superficially, many people have what I would call a kind of aesthetic, moral stake—a kind of a sacred commitment to the center city. They wish that the center city would continue to be "the hub and symbolic center for the metropolitan community." (Here I'm quoting from a higher civil servant in Philadelphia.) The difficulty with this particular approach is that the people who are so involved in recreating the center city of another day are representatives of the enormous population which has chosen to live outside the center city in the well-heeled suburbs of the Main Line, the North Shore, Westchester County, and Bergen County. They can see that they don't want it, but they can't see why other people shouldn't want it.

The goal changed again. Some cynic has remarked that in the beginning we were interested in putting a family in a decent house. We decided that that was too difficult, so we decided to recreate entire blocks and neighborhoods in the center city. And that was too difficult, so we then decided that what we had to do was to revitalize the entire center city. Since *that* was too difficult, we decided that what we had to do was plan for the entire metropolitan area. This is called comprehensive renewal planning.

The situation that emerges can be looked at from several levels and I'll try to be rather brief about it. You can look at it first from the point of view of the actor, let's say the local man who runs the local public authority. This is a man who typically works within a cage of pressures. I think that the beginning of political wisdom is to understand that everybody has his problems. This is the simplest way to tell an ideological idiot from someone with a little sense of polititcs. And looking at the guys running the local public agencies in a couple of dozen cities, one of my focuses was to ask: "What is it you've got to do, who has got to cooperate with you, and how do you make them cooperate?" Here I found George Duggar's theories very useful. He says that it's wrong to look at urban renewal and an urban renewal agency as a formal organization like Sears Roebuck or the U.S. Army or something like that. It's not—it's a curious stringing to-

gether of a lot of organizations; he calls it an "enterprise." The thing about an enterprise is that in order to get an output, you've got to have cooperation but you do not have determinant sanctions. You cannot force them to cooperate, so you've got to bargain with them and, in the process of coopting them, they are probably going to coopt you back. You're going to have mutual cooptation. It's going to cost you to get agreement on action.

Who, then, does the man running the local public authority have to get along with? Well, to begin with, he's got to get along with the federal urban renewal authority in Washington, and he's got to process it through his regional office, and they're going to ask him to do a lot of things, many of which he can't do. They are going to make him stand up and swear that he will indeed carry out the workable program; that, as you know, means that he is going to relocate everybody in decent, safe, and sanitary housing and have the proof that he did it. (We don't really like to equate displacement with relocation though I know of certain large cities that make a practice of this. I suppose you could say that refugees from bombing are relocated too.)

He's also got to see to it that the housing code is enforced and that it is enforced across the board. The differential application of governmental norms is a pretty bad thing. This means that you apply a housing code, and you enforce it. You see to it that people live up to a law which is an ex post facto law, which does not have wide support among the population, and which no one wants to enforce, beginning with the inspectors who hate old housing (they love to inspect new housing, they hate old housing) and the agency head who hates to send them out to do it since he gets nothing but political backfire. The head of the city government hates to have them doing this if he wants to stay in office. The man running the local program hates to have them do it because he can very easily have his whole program kicked to shambles; it's happened in a number of cities. To go a little bit further, the people in Washington hate to have it happen because it's an invasion of the sacred right of Americans to spoil the land any way they want to.

Well, there are a few other kickers in the workable program, one of which means that you've got to have real planning of public improvements to coordinate with what is happening in your redeveloping areas. And again and again I ran into people who said that this was very, very difficult or even impossible because the decision on where you make new public capital investments is ordinarily not in

the hands of the people who live in the worst neighborhoods in town. One sign of this is that they are the ones with the worst "public improvements" to begin with. The national agency, very sensitive to certain types of criticism from the radical right and the liberal left, tries to put the pressure on the locals, for in the intrinsic logic of urban renewal the workable program is not a bad sketch of some of the things that should be done.

However, this is only one pressure. Another pressure is the pressure of the local political process. At the superficial level: what kind of bond issue to go the referendum with? At another level: who thinks that he has to really respect the aims of the program at all? These urban renewal people, you know, come and go. If the LPA man is strong he stays there while the mayors come and go and even the managers come and go. (Always upward by the way. One of the interesting things about city managers is that they can go on from failure to failure.)

Then you've got the problem of the people themselves, the voters. They can cause you trouble, because they're the ones to whom (unless you completely shield your program from the referendum) you are going to have to return for validation. You hope you can fool them because you damn well can't educate them. It is far too complicated a program.

It's going to be a little hard to do much about housing codes if the voters are opposed to it. I know of one community where all three deities of the secular trinity were evoked over a "little old bit of housing code" as a man running the LPA said. He said "a little bitty old bit of housing code—didn't mean a damn thing—and we tried to apply it in the project area and the 'naughty nine' got organized against us and the next thing you know they defeated the referendum, and the next thing you know they had initiative and they repealed the city housing code altogether. And then some of the members of the city council tried to get our program o.k.'d with a tacit understanding of the housing code so they had a recall election and they recalled them." In other words, once you get a popular democracy going, the voters are perfectly capable of tearing the entire house down, as they did.

Finally, and perhaps most important, there is the local real estate market. It is something you can't control but you've got to have cooperation because no one likes to be called the biggest grower of ragweed in the country. Nobody likes to have cows staked in

the middle of downtown. So how do you solve this? There's a very revealing story in Kaplan's study of urban renewal politics in Newark. One of the most highly respected public servants in the country tried to: (a) prevent a Ph.D. candidate from getting his degree from Columbia and, (b) tried to suppress the study. What does the study say? It says: "Well, these men started out saying they were going to make it work like it's supposed to work, to clear the land that needs to be cleared, to put it up for bid to the highest bidder with the most suitable use. They did and we went around in fear and trembling for a couple of years saying 'My God, we took a terrible chance with that land.' So what do you do now? You don't take any chances, you get old Zeckendorf and his floating crap game in here and find out where they're going to build. After they've told us where they're going to build, we know where we're going to clear."

Well, as you can see, the very structure of constraints that urban renewal is supposed to loosen up, so as to allow public purpose to be more determinant, is the very structure of constraints within which urban renewal programs are moulded. Now that may be all right, but let's don't say it's something it isn't.

From the point of view of the metropolitan area as a whole, I think we can say several things. Professor Woodbury has already said them very well. Most urban renewal is generated by municipal corporations. Most significant programs are generated by center cities which today amount to, I should guess, only about 48 per cent of the metropolitan population. Center cities are generating programs for a very biased part of the urban fabric. It's old and dirty and a lot of Negroes and other ethnics live there. And the property still has value; it is only partly amortized. It is, let's say, not highly competitive in the metropolitan land market, not highly competitive in the labor market, and not highly competitive in the housing market. That's where urban renewal ordinarily is flourishing at the greatest rate.

At the same time, it is *outside* the bounds of the center city where the action is taking place. So planners talk with great enthusiasm about what they are able to do with center city Philadelphia, but if you want to see the action, go out to Valley Forge and see what has happened to that historic shrine; between shopping centers, residential neighborhoods, and industrial parks it's the most rapidly growing part of the area. In Chicago if you want new growth, go out to the Northwest Expressway between the boundaries of the city and

O'Hare Airport; the only really significant spurt of growth in the Chicago metropolitan area lies completely outside the bounds of Mr. Daley's city.

Beyond this, we could raise the question of equity. We could say that what we are doing with urban renewal is subsidizing commercial enterprises of the center city to compete with enterprises of the suburbs. I submit there is no self-evident reason for doing this. We are redistributing income. The common argument given is the tax base of the center city is shrinking relative to its service needs (as Mr. Brazer pointed out this morning). I say if that's true, isn't there a simpler way to redistribute income than to try to reverse the entire trends in urban development in this country—the decentralization that Professor Woodbury talked about?

Finally, we might look at urban renewal from the point of view of the nation. Urban renewal is a form of national redistribution of income. Where are the cities that most need help? And where are the cities where help would be most effective per input in terms of national purpose? Parenthetically: Who is asking that question? No one, so far as I can tell. Do you see any reason why Los Angeles, one of the richest taxing jurisdictions in this country, should have a massive program of federal aid to some not very rundown urban neighborhoods, when at the same time there are many cities that are pretty much wrecks, but have very modest programs or none? If it is a national program, then we have to take the national picture into account. I don't think we are doing that. I think that instead we have a kind of hucksterism. "Wouldn't you like a free sample of something? If you come along, I'll give you something." Indeed the amount of money that is being given has increased quite consistently from the first year that urban renewal started, so that today the cash contribution of the local municipal corporation is down to somewhere between 15 and 18 per cent. It is supposed to be one-third but there are many ways of getting around that. So what we have then is a program which operates within a set of constraints which it is unable to do much about because of the limits on the political power of positive government in an American society in which we dichotomize between local and national and between public and private.

Now if we could approach this as what it is—a political matter—I think we would start with the assumption that politics is about conflict. Like economics, it is about scarce values. If there were plenty for everybody there would be no problem, but then it wouldn't be significant either. The kinds of conflicts that we have—well we

can say there are several types. First, there's a conflict between values and values. If you have a limited amount of resources, which is more important—putting poor people behind doors in housing which satisfies minimal standards of housing quality or removing hock shops out of the paths of banks? If you have lots of money, you can do both. From the point of view of the hock shop, of course, there's another conflict. All right, we do have problems here, and these problems have not been stated very explicitly. They are not very clearly understood, partly because the program is not very well understood. It's had little educational impact and, somehow or other, has gotten by with poor public relations.

The second conflict is that between political jurisdictions. This can be quite a serious conflict. (It would be more serious if more people did a little cost accounting of the consequences of putting that money into a metropolitan area here rather than here, for this purpose rather than that purpose.) The things Mr. Brazer was saying this morning are quite applicable here. Third, we always have the conflict between the interests of different people. The hundreds of thousands of displacees from low cost housing who were, for the most part, not proffered any alternative housing even at the same price (much less better housing), have to go into the scales along with the new buildings that were built on the scenes of their former homes. Further, people who opt for the dispersed urban texture, the city of giant grids, shopping centers, horizontal neighborhoods, industrial parks—the decentralized city—are not being given much concern. Yet an urban renewal program that hadn't much of a time perspective would be as much and probably more concerned with the development of the peripheries of the cities as it would be with what's occurring in the center city. Indeed, my prescription would be, let the market go ahead in the center city. Let's find out experimentally, since our theory doesn't tell us, what the values of centrality are for whom. Let the land that is now built over with obsolete structures deteriorate in value (as it will if you don't peg the price and if you make alternative land and structures available) so that we can condemn it at its value, which is low, low indeed.

This would mean a city like a doughnut, with a hole in the middle. Everyone who has thought seriously about urban redevelopment has said that we need pretty large areas to redevelop within the center, areas that would be fantastically expensive the way we are buying land now. I say let the market value go down until you can buy two hundred acres or five hundred acres—enough land for a

public school district and the sub-shopping center and the sort of things that we suspect you need in order to create a kind of neighborhood environment that will be acceptable to Americans with choice. (Those without choice are no problem.)

Underlying these conflicts in values are some intellectual conflicts and intellectual problems. One is the question, how powerful are the engines of dispersal? I think they are pretty powerful. From my look at sample survey data, from my look at the Rapkin and Grigsby studies of housing preferences, it seems to me pretty clear that if you look for the norm of what most Americans at this point in history want, it turns out to be the single-family-detached-child-ranch-in-the-suburb surrounded by grass, with a barbeque pit in the back and two cars. If that's what they want, then I think that's probably what they are going to get, given our dependence upon the market.

Another intellectual problem is that of the distinction between areas that we call "slums," reifying them, and talking about them as if they were some kind of a disease, in which age infects housing, and housing infects people, and the next thing you know, they are all on ADC. Well, this is an unanalyzed abstraction—this term "slums"; it needs a good deal of thinking about and there are some hopeful signs that we are beginning to distinguish between geography and people. There may be some sense in which geographical areas have problems; there are lots of senses in which people have problems. If what we really are talking about when we talk about slums is that poor folks have poor ways, let's say it. If we say the urban experience educates people, then let's talk about education, not about a bunch of buildings. If we are talking about the tendency for birds of a feather to flock together, let's disperse them. You don't disperse them by destroying low cost housing and creating increasing congestion. You don't disperse them by putting them together in slab towers. As I say, there are some signs that some people have stumbled on these ideas some way.

Finally, a point that Professor Woodbury brought up, that I think is of extreme importance, goes back to your beginning paper this morning. We might think about futures. One of the things that's striking about this society is the rate of change. (There's a cliche for you, one cliche that doesn't change.) But I must say that had I had to plan, supposing I were old enough and silly enough to want to plan for this society, about the time I came of age intellectually (which would have been about the early forties), I think I would

have missed every damn guess I'd made. If you want some sign of this, it's kind of fun to revisit some of the old archeological sites where some of our famous planners planned a plan and see what happened to it. They almost always underestimated almost everything. And indeed, as long as we are planning in terms of brute projections we are going to be caught in that trap because this is a much more complicated society than that. When, for instance, one of my friends in sociology of education tells me, within thirty years half the adults of the United States will have had some college experience; when the Bureau of Labor Statistics tells me that by 1999 the median household income in this country will be, conservatively, in today's dollars, $15,000 a household; that output per manhour will be three times what it is today—when I read statistics like this, I have a feeling that we're just not very imaginative in our study of futures. We owe a great deal to the utopians. We also owe a great deal to the people who are trying to be very hard-headed and very tough-minded about studying the problems of predicting and controlling urban development.

It seems to me that what we now need is some kind of a synthesis of these two approaches so that utopians would not only dream dreams but tough-minded people with a strong reality principle would study futures. I don't say *the* future because I think we have lots of options and that what we really need is another systematic look at the possible futures and at the factors or variables which seem to us to be determinant of which type of future. And if we do that, we might at least have our target—how to change the variables so that others kinds of futures are possible. And how do we decide which kind of future we want? Politics, I think, began in war and bloody conflict and I don't believe the process has gotten a bit nicer since.

Question

Do you think there is any way to satisfy the desire that you have talked about for single family housing and dispersion and still satisfy the desire for transportation and anything else?

DR. GREER

Well, I think the two fit together; that is I think that the family owned automobile has, at least for the near future, practically become a part of the Bill of Rights. This is, of course, what makes possible the fantastic increase in supply over demand for urban land which is, in turn, the reason for a lot of competitive disadvantages of the older and denser parts of cities. I might add that I'm no

crystal ball gazer and that I wouldn't make very firm guesses about American preference patterns in either transportation or housing beyond the next ten or fifteen years.

You see there are a number of things moving here. Within a very short period of time the majority of the population will be either too young to work or retired. It's true, but it's fortunate because we don't need them. Now retired people, older people, people past the child bearing age, people of higher income, who work in the center city, are the major market for the new center city luxury apartment construction which is what typically takes the places of tenements. The preferences of people beyond the child bearing, child rearing stages are, I think, kind of a wild card. Some people are rather prematurely talking about the return from the suburbs. I don't think it's time to send up any rockets about that, from the data I've seen. On the other hand, give us twenty years more, with the accumulation of people like you and I, and with the accumulation of income, and it is quite conceivable that such enterprises as Marina City will become very common in the center city. On the other hand it's by no means certain, because what's happening is that our urban complexes are growing so large that just from a simple space-cost base it makes more sense to see them as conglomerations of great sub-centers and in the sub-centers we begin to replicate the structural pattern very much like what the old center city once was. It's just that now we have six or eight of them and in these sub-centers we have rising the luxury apartment houses for the post child family which, according to Rapkin and Grigsby, are the greatest competition for the same structures built in the center of the old city.

Now, if one had an urban development program that could take into account the total urban complex, one might say these sub-centers are probably inevitable given the whole structure of preferences and costs. Why don't we see to it that we shore up the political, economic, and if you like, cultural nature of each sub-center so that it can reproduce, not simply a supermarket and housing, but such things as theatre, music, and Bohemia. Maybe they even need slums, the "richness" that some people talk about. If you did this, you might think about reorganizing our metropolitan areas, not in terms of merging everything in the center city, which I think will happen only by an Act of Congress, in terms of creating viable size sub-units as political entities. I have no idea how big they would be—I guess 250 to 500 thousand persons.

And then what would you do about giving them some guts? It's

my hunch that in the future education is going to continue to be the biggest growth industry in the United States. It is going to be the determinant industry for more and more of our life. It's our secular equivalent to the church. Indeed, its buildings ordinarily have a role analogous to the cathedrals. Therefore, perhaps you ought to think about a university-research development complex at the center of your sub-nucleation and see if it isn't possible to make urban domains that are somehow appropriate to human scale but in which we do not lose the essential quality of urbanity, which is, I say, choice.

THE FEDERAL GOVERNMENT AND URBAN DEVELOPMENT

George Belknap*

The title which was given me—the federal government and urban development—presents a problem. In the effort to become a cabinet level department, we were pretty careful to make it plain that the new Department of Housing and Urban Development would not pretend to be *the* urban department of the federal government. There are dozens of departments and agencies which have very elaborate programs of aid to cities, and even with this new status and with new programs which are in the works, we will be only one of many federal agencies dealing with urban problems. We are going to be pulling together our own existing federal programs and we will be coordinating other federal programs but we are by no means the urban department of the federal establishment. So, here I am speaking for a department which comes into existence in a couple of days with some uncertainty as to its structure and some uncertainty as to its personality.

At the earlier meetings four themes came through which are very basic considerations in this whole urban development question. Coleman Woodbury's very scholarly setting out of the basic problems of urban development was, I thought, as fine a job as I have heard in many a year. John Bebout's discussion of the role of universities in development was very much to the point and also, I think, outstanding. The universities are of great concern to our agency since we see them as one of the major instruments for bringing about more orderly development. The treatment of technology in urban affairs is another important theme.

Finally, Scott Greer gave his usual hard-hitting attention to the political realities of the city. This theme is one that a federal bureaucrat is tempted to deal with, but I would be out of my league

*U.S. Department of Housing and Urban Development

in trying to debate Professor Greer on these matters of the very formidable and sometimes overwhelming political realities we have to deal with especially in large metropolitan areas. Luckily, Professor Greer doesn't exhibit, as do some of his colleagues in eastern universities, a kind of cynical, "cities are going to hell and isn't that interesting," kind of attitude. We have had a number of academic people writing along that line and I think Professor Greer feels that the healthiest thing for us—whether we are at the federal, state, or local level—is to face up as early as possible to exactly what we are up against in the political field but not pretend that we can plan and program urban activities as though they were a space effort, an industrial effort, or something of the sort. So having the political reality spelled out for us today was done, I think, in a particularly constructive way even though implicitly I am admitting some shortcomings in our federal program; it just happens to be true that there are shortcomings.

I want to touch on the theme of systems analysis. This is a subject which is running through the federal government with great fashion. The debunkers, I think, would call it a fad. The enthusiasts are very evangelical about it. Let me just read one quote that gives the President's attitude and really puts the theme out in the open pretty clearly. Last spring the President said: "Each Cabinet and Agency head in the federal government will set up a very special staff of experts who, using the most modern methods of program analysis, will define the goals of this department for the coming year. Once these goals are established, this system will permit us to find the most effective and least costly alternative to achieving American goals."

You will probably recognize this theme if you have been following the career of Mr. Robert McNamara or reading any of the statements by the director of the Bureau of the Budget. The whole emphasis is on getting federal agencies to systematize their efforts in order that the federal dollar will get as much as possible—more important—as much as we *want* it to get as possible. Those of you who have had some experience with federal programs are quite aware that this is not the present practice. In other words, the federal expenditures are not always made with the kind of careful attention that the President is now calling for. Throughout the summer we have been having seminars at the Budget Bureau concerned with the question of how federal programs can be made more rational in terms of the missions that they are setting out to do. We will be required, in all

of the domestic agencies, to do as the Defense Department has been doing—account for our expenditures according to the missions that we are commissioned to carry out.

Now you will notice, those of you who heard Professor Greer this afternoon, that the criticisms of the urban renewal program are really criticisms of that program in terms of what it sets out to do. The Martin Anderson book, which caused apoplexy throughout the urban renewal administration, criticizes the urban renewal program because it reduces the stock of housing for low-income people. Well, the obvious retort to this is that the program was never intended to provide housing for low-income people. But the fact is that we in the federal government have never really articulated just what the goals of our various programs are and then reminded Congress of the absence of programs required to do certain obvious things. We have never systematically articulated our goals and related them to our program. We were very vulnerable to this charge and we still are. Federal programs such as urban renewal will start out with the objective of clearing slums—which seems like a perfectly reasonable objective—but as the program gets under way you realize that it is doing things that you did not intend it to do. In the case of slum clearance the major thing was depriving very many people of housing.

So we are being asked to do the sort of thing that Mr. McNamara does with his admirals. He will call in General "X" or Admiral "Y" and ask, "What is the mission of your particular program?" The admiral may say, "I'm in the business of sinking submarines." Then Mr. McNamara or one of his Rand Corporation advisers will say, "Go back and think about it and come back to us tomorrow." This dialogue is continued and the admiral is then supposed to say, "That, come to think of it, is not what my mission is. What I am trying to do is to maintain supply lines." In other words, this is a logical way of cleaning up the objective of a particular mission.

Probably the most dramatic example of a confusion of mission was the so-called missile gap. I think there are some analogies here to the slum clearance and housing problem. You remember that when the Democrats were campaigning in 1960 they made quite a big deal out of the missile gap and harrangued the Republicans about how the Russians had gotten ahead of us on missiles. When the Defense Department got to work on this idea they concluded that it was a very simple-minded approach. There was nothing intrinsically good about having one more ballistic missile than the enemy.

So gradually there evolved the concept of the weapons system.

The reason was that if your mission is to defend the United States, no one weapon would serve that purpose. Instead, one must consider various combinations of weapons and strategies. Along with this, of course, is the very obvious premise that you do this with limited funds. We often think that the defense people have no limits on their funds but they do. So they are faced with these questions: "Do you want nuclear power carriers?" and the admirals are likely to say, "Of course we want nuclear powered carriers, they are better than conventional power." Then the obvious question that will come up is, "Would you prefer this to another way of spending the money?"

This logic is, as I understand it, the heart of the so-called McNamara revolution in defense management. It does not involve a grand strategy that gives you cost estimates for an entire way of fighting the Viet Nam war or defending yourself against the Russians. This economic logic, sometimes called cost benefit analysis, is not something that will answer the question of whether you should have ground troops, guided missiles, or manned bombers. Rather, it tells you what it will cost for different combinations of these weapons so that Mr. McNamara and the President can then say, "I have been given these 'packages' by my staff people. With this amount of money we can buy package 'A' or package 'B' or package 'C.'" You can't have it both ways; you can't have it three ways; you can only have it one way.

Let's move from that area which some people think is rather far-fetched as an analogy—and I hope now to make the point that it isn't as far-fetched as it sounds—into the field of urban affairs. I am sure that all of you are thinking immediately of the fact that no federal program or federal agency in the urban business can make the kind of choice that Mr. McNamara can make between a Polaris submarine and a platoon of ground troops. We do not have this kind of budgetary flexibilty which is the main weakness in this transfer of managerial concepts from defense to urban affairs. Our programs by and large are grant-in-aid programs, federal money going to states and primarily to cities in our case, and so we are not in a position to say that the ideal package for Des Moines is this many dollars for public housing, this many dollars for renewal of the central business district and here's the package—take it or leave it. We cannot do this type of manipulating of funds at the federal level. So you might conclude from this that the full analogy breaks down completely.

I'd like now to make the point that I don't think that necessarily

follows. I think that the new department of urban development will have something called the Institute of Urban Development which we see as a rough analogue to the National Institute of Health. It will also be an agency of this federal department which can provide the cities with some technical assistance and with money to allow them to engage in something of this management revolution which we've seen operate so successfully in the defense department and in industry.

You might ask, isn't this what urban planners are doing already? Are they not making rational allocations of the city budget for the various social goals of the city? Are they not offering to the mayor and the city council these various policy packages? Well, I think there are many of us who are somewhat disillusioned and impatient with the implementing of urban planning in America. Although our agency is very heavily committed to the planning effort, I think we are beginning to see it as a pretty long-run effort and an effort which is not always tied as closely into urban management as it should be ideally. For example, a number of mayors in some of our large cities, at the urging of Orin Nolting of the International City Managers' Association and his counterparts in the National League of Cities and National Association of Counties, have been meeting with Professor Wood of M.I.T. and kicking around a concept which they call the urban observatory. This concept refers, as I understand it, to the idea of providing the mayor with a higher level of capability in decision-making, better information systems, computerized information systems, and better simulation of urban growth. In these discussions the mayors don't very often make reference to their urban planners; they see them as doing a somewhat longer range kind of staff work for them. So one gets from these particular mayors a feeling that they are really in the market for the kind of management know-how that industry has been practicing for a number of years. This is the evidence I would cite for the market for this type of management improvement that I think our agency will be pushing rather strongly.

A related thing I would like to mention has the repugnant name "hardware spin off." The National Aeronautics and Space Administration actually has a unit which is concerned with what they call "technological transfer," that is making available to the civilian economy the technological advances in space travel and so on. This idea is a pretty intriguing one to people and I think the scientific personnel in the government see this as of roughly equal importance to this management revolution I've been talking about. This type of

transfer would bring to urban affairs an upgrading of managing skills and programming skills, but at the same time it would also bring a much higher level of technological know-how. These things, as I will point out, are very closely related and here again I think the new federal department will be making a very serious effort to this end. I do not think the new department will use the NASA approach; that is, "here is some wonderful machinery, why don't you use it?" Rather, I think we'll be going about it in the other direction—working with the mayors, asking them what their pressing technological problems are, taking them to computers which can now store large amounts of technological know-how, and then bringing this technology to bear on their problems. I'm talking about things of quite a wide range here, from the very earthy subject of the self-circulating toilet to the dome city. The technical possibilities are enormous. What we need is the institutional ways of bringing this know-how to the public sector in the urban area.

These things may sound a little far out considering how pressing our immediate jobs are in the urban field, but Vice President Humphrey is already working with a committee which he has set up of several federal agencies, including our own, dealing with these two questions: How can the federal government be of assistance in bringing to our cities a maximum amount of aid in upgrading management skills? And how can we maximize this so-called hardware spin off from the space efforts and the defense efforts into the urban scene? We're holding meetings with representatives from the National Science Foundation, National Aeronautics and Space Administration, Defense Department, National Academy of Science and several others working on these problems and we will come up with, I assume, some legislation for the next Congress, probably in the form of federal grants for these two purposes.

Here we come to the question that Professor Bebout was talking about last night that I want to take up in some detail. How does the university tie into this picture? As I see it, and I think as Dr. Weaver and all my superiors in Washington see it, the universities are abolutely central to this; yet there is some ambiguity. I want first to reinforce what Professor Bebout was saying last night in that the university, having provided the know-how for agricultural extension, is certainly the place to provide the know-how for our urban communities. But there are problems and I would like to mention a couple of them.

One, of course, is whether the university is not already overworked

and whether it has the resources to deal seriously with the problem of this magnitude. Mr. Bebout had a very cute limerick comparing the seduction of universities into various activities with another kind of seduction. This effort that I am talking about here might be viewed as simply one more effort to drain off limited intellectual resources from the universities. What I would like to suggest here is that the university is in a key position to play a role, but if that aid is not forthcoming probably we will see something resembling a Rand Corporation or other type of nonprofit research institute filling the gap. If the universities welcome this opportunity and want to get into it, I think they are going to face something which we have been grappling with; namely, how do you relate the substantive know-how of the social scientists and the urban planners to the technical and conceptual know-how of our systems engineers? Even the wildest enthusiasts, with respect to systems analysis, do not pretend that the computers themselves are going to somehow make sociology unnecessary, that somehow the empirical knowledge of the city is going to somehow be summoned forth by just asking the right questions of the computers. I think everybody that has been involved in this in Washington has been very reassured by the defense people and the space people on this point. Anyway, none of them pretend that these approaches are really going to supplant the substantive know-how of people who know how cities work. The sociologist still has to answer the empirical questions about how, for example, the physical environment relates to human behavior and styles of life. The political scientist still has to tell us how a political institution will affect a particular program. These things remain as empirical questions. So I think that in working with universities along this line, we must try to get them to accept a role by the systems engineers in making a transfer of some of this management and technical know-how to the urban field.

The limitations on ordering federal programs, as I have mentioned, provide a real difficulty. For us in the housing and urban development field to try to sit down with the Bureau of Public Roads and say what would be a nice balance of investment between highways and housing or highways and mass transportation would obviously not be the answer to anything. We are going to have to make sure, first of all, that these federal programs are roughly in balance, and that we have some very rough ratios between mass transit investment and highway investment. Again, this is not an engineering problem; it is a social value problem.

The final point I would like to make in this regard is that how do we, or how will the mayors, if an approach like this is entertained and pursued, avoid dealing only with the questions which lend themselves to computers and quantification? How do you weigh urban beauty against cutting ten minutes off of the commuting time between downtown and suburbia? Well, here again I think the people would do well, in our case, to hear out some of the defense and space people on this score who have similar problems. The defense people can quantify the relative cost of transporting troops by air or sea but they cannot quantify the relative value of a ground batallion as opposed to a guided missile. In our case I think we've got to avoid working only with considerations which can be quantified and fed into a computer such as speed and cost of travel, value of land, and so on. We have to deal also with these other hard-to-value social questions of urban beauty, amenities, racial balance, and justice. We must ask ourselves not whether one costs as much as another, but rather given the cost of the social goal, just what do we want to buy with our limited funds. I don't think that with this approach there is going to be any downgrading of the aesthetic and social considerations in favor of the things that can be put into dollars, time, or speed—the things that computers are uniquely set up to handle.

I have been trying to cover some of the "thrusts" or directions which the administration seems to be going in. As I say, this may be the wrong direction. I think that here again is where we turn to the universities for the kind of criticism which Professor Greer was providing of a specific program. I think we want to ask them: Is this a blind alley? Is this the kind of subject matter that cannot be handled this way or that? If we get the kind of friendly reactions that Professor Greer was making today, I think we'll get either steered in another direction, sobered a bit as to how far we can go in this direction, or perhaps encouraged in this direction.

I do want to restate one point here because the universities, I think, are a little reluctant to deal with the problems of this applied nature. When I used to profess, it was much more fashionable to deal in pure science, and if it had applicability you just weren't with it; you were kind of pedestrian. I don't know whether that is still the case, but what I'm talking about, of course, is a highly applied kind of economics and public administration. Again, the universities may not feel that this is the proper kind of activity to turn their intellectuals to work on. So as I say, we may find ourselves turning to-

ward the Rand Corporation or to private industry to get the kind of effort that is needed.

Let me just mention a couple of specific cases as to what I think many of us foresee in the next few years. I'll take one example in the technology area and one in the systems area.

The mayor of Detroit has been talking to the people at Wayne State University on the possible transfer of a university-industry program to city government—the program has the following four elements: One is the computer aspect of providing adequate data storage and retrieval including both technological information and management information. The second element is training. The program has as one of its four components the training of people to work with the mayor and the other decision-makers in the use of the information which the computer can provide. The third element is technological assistance to the decision-makers to find out just where their major problems lie. In industry, of course, these things are more easily spotted but in the public sector I think we'll be talking about some obvious things such as the tendency of firemen to use axes to go through walls. Even though it is a very time honored practice it is a technique that I think one would want to examine in light of how space capsules have treated the outbreak of fire, how the military has done it under certain circumstances, and whether the prevailing practice in the municipal field is not one which could use some of this more advanced technology. The fourth element is systems analysis itself; the technological aid by the university people as to just what the mayor is trying to do. What are his missions? What is he spending his money for? How effectively are his programs achieving these goals? Here we have to introduce the consideration of program evaluation so that the technician or the systems analyst can continually provide feed-back to the decision-maker as to just how he is doing with his efforts to achieve goal "A," goal "B" and so on with these restricted funds which he has.

Now to get to the very final point. Just how, procedurally, will this new federal department try to move in these directions that I have been trying to talk about? The one thing that I have already mentioned—the establishment of a federal Institute of Urban Development—would be a source and a clearinghouse for both technological and management know-how; a place where scholars could come for short periods where their works would be digested and abstracted; a stimulant for intellectual work in the urban area; a center for training leadership.

I think the intention is to place the Institute in a semi-autonomous position so that the kinds of uncritical self-evaluations which government people make can be corrected. Here I am not referring so much to Scott Greer's criticisms of the urban renewal programs but, shall I say, to some of the earlier more savage attacks which I think would have been forestalled if our agency and every federal agency had a relatively independent research program evaluation unit which could continually provide realistic information as to just what the federal program is accomplishing and where it is falling short. Until we do this, we have to act defensively and say: "Now Professor Greer, calm down. We may have displaced all these people, but look at this fine downtown section we have built." I think that in the National Institute of Urban Development we can have this kind of assessment of federal programs in the urban field and make self-correction as we go along.

I appreciate your having me here and Dr. Weaver would have liked very much to be here himself. I hope you will have a chance to hear from him directly at some future time.

ELECTRONIC DATA PROCESSING IN MUNICIPAL GOVERNMENT

Howard Weiner*

Automation and its concepts came to the city of Sioux City in the autumn of 1959 in its programming stage. We programmed and provided our first application in January of 1960; this was a water billing and collection operation. We have the same equipment today that we had in 1960—the noncomputer type of equipment which is called electromechanical. It is electronic data-processing, but it is the type of data-processing which does not have the storage capacity. Moreover, the speed is much slower than the computer, and it does not have the memory bank. But it is electronic data-processing.

For an installation of our size and our needs this was, we felt, the most adequate thing we could go into at the least cost. We're paying the same amount of money today that we were paying in 1960 for equipment rental. We've only increased our staff by one person in these five years, a key punch operator. We pay $1,368 a month for equipment. We are at the point now where the council will be approached for more refined equipment, and we hope to be in the computer field by July, 1966.

I think from your standpoint, you are interested in the specific types of applications that we have on and what we have in mind for the future. We have all the fiscal operations for the city of Sioux City on data processing. I'd like to mention these briefly and make one or two comments about some of them. We process: water billing and collection, treasurer's report and receipts, accounts payable, appropriations, operating statements, payroll, subsidiary reports for payroll, and expenditure reports. We also provide the finance department and the city manager a report called an inventory of personnel. This report is a listing by the 10th of every month following

*Director of Finance, Sioux City, Iowa

the month of activity of all employees by department, their compensation, and the total employees working for the city. We also have had a small program of analysis of building inspection permits and licenses. These are the types of programs that are continuous on a monthly basis. This information is provided to the department heads and the other levels, including the city council.

We have some other programs that are not continuous—spot programs or programs that will meet a specific need at a particular time. In many cases we probably shouldn't have got into these programs because of the inadequacy of our equipment for this type of program. But for a number of reasons we went into the programs to educate the people in the departments that were going to use them. We anticipated programs we might be in the departments with in the future. Or, we wanted to get experience in the particular program, or we wanted to make an attempt to see if we could do it. One spot program was a traffic survey analysis—origin and destination study. It was a small one but it was very successful.

We have voter registration on data-processing and I'd like to elaborate a little bit on this. It is for us an extremely successful program. We have about 47,000 registered voters in Sioux City. Cards for these were all punched in our spare time in a period of about three months. It eliminates these cumbersome and unattractive trays that are sent to the precincts every time there's an election. It eliminates the difficulty the judges and workers have when they pull out the tray, find your name, take the card out, turn the card over, stamp it, turn it back, put it into the cellophane, and put it back in. We now provide them two books, A through K and L through Z, of all registered voters by alphabet, by precinct, identifying them properly according to the new law that was established this last legislative session. The workers at the polls simply identify the person by the name written on the little slip that they sign when they want to vote and stamp this register. Then the person votes.

We estimate that we have saved about 60 per cent of the time required for people to vote, just going through the lines. We've eliminated four days of labor for our people to deliver and pick up the trays that had previously contained voter registration lists. And we have provided this year, which I think is a matter of law hereafter, a list alphabetically by precinct of all the registered voters in the city of Sioux City to the political parties. It took us nine and one-half hours to run the list, and we charged the political parties $36 for these lists. Each of the political parties spent from $800 to $1,000

last year getting the same information, in addition to being under our feet for three months getting our records and the information that they wanted. This voter registration gives the person's name, address, sex, party affiliation if available, and voting history for the last ten years. This last is extremely important because we can kick out those that don't vote in four years, which is a matter of law.

We also collect information on the age of the voter. We think that when we get our feet firmly on the ground, that we can provide a number of statistical analyses for political parties, management, whoever is interested in this type of thing, as to age groups that voted, sections of town that voted, party affiliations, and so forth. So we think that it's an attractive and very useful implementation of voter registration to automation.

We are also in a program of library analysis. This is one of the programs that we probably shouldn't be in. However, we want to get the library people, who are an outside agency from city hall, interested in what we're doing, develop a close relationship, and prepare for some kind of automation later on. The program involves a simple study of the children in grade school level that are using libraries or branch libraries—which library they are using, if they have a card, and so on. We have also developed a program of inventory of streets and their condition, which we think will be very helpful to the engineering department.

This is basically what we have on at the present time either on a monthly or a time by need basis. We have, I think, some elaborate plans for the future. We would like to get into standardization of purchasing specifications, personal fixed property inventories, special assessment recording and calculation, traffic ticket analysis, health statistics, general accounts receivable, population survey, county tax assessment rolls, dog licensing, intergovernmental fiscal and nonfiscal operations, central filing, and regional planning. So we've got, I think, a format or a plan for maybe a great number of years. However, this is very essential in the proper use of your equipment.

I believe that the success of electronic data-processing is dependent on its proper use by the employees or employment levels that are getting the information. Therefore, an education program is necessary to insure the success and proper use of these end results. I think it's something that all of us don't do as well as we should do, but I think it's extremely important. You can't have a successful operation if the people using the material don't know how to use it or don't appreciate it. The proper presentation of the availability of

the fiscal operation results in the timely reports and documents that become the refined tool of management. This is extremely important from the standpoint of timing. I think we will all agree that if your reports don't come in on a timely basis, they are of little value to you. You must have your reports as nearly to the date or the month that the activity occurs in as possible or you lose that control in the end of that month of activity and the time you get the reports. So it must have some timeliness to it. In Sioux City we have so far been able to provide operating statements and payroll data, tax forms, tax reports, and W-2 forms by the 10th day of the month following that business activity for the council, the city manager, and department heads involved in these operations. It has to be the tool of management. You must use it. It must be on a timely basis.

There are many questions that come up during the period of selling automation to private business or to city government. I might mention that automation was not sold to the city council of Sioux City on the basis that it would reduce staff. We would like this to happen but I don't think we're of that size that automation will reduce personnel. So we didn't sell on that basis. We sold on the basis of efficiency, effectiveness, and the future capacity to meet the requirements that the taxpayers are putting on the government entities. We did more today than we did yesterday; last year we did less than we are doing today. And certainly it's not going to get any better than it is now. Our demands for services are going to be continuing and will be greater each year. We all subscribe to this. So in Sioux City we were able to maintain the same level of employment in finance for these five years without increasing our staff, and still provide the additional services that are required. Now this is a very important point. Your capacity is greater. We might say in brief that management can get from automation the same information for less money or more information for the same money. Now certainly there are certain people in your organization that are going to have less time with automation than they had before. But how many of you as city managers or people on administrative levels can say that you are happy with 100 per cent of your operation? We all have operations that need refinement if we had the personnel to put in this capacity. So we simply take the time that the people do have now, because of the machines and put them in an area that needs refinement. This is what we've done; I believe that it is the newest and the most complicated innovation of business today.

This brings up the other point I wish to make. We must recognize

what we can do and what we can't do. My education as far as automation is concerned is the same as yours. I have no education in automation; I am an accountant. I believe that my abilities in accounting will complement those of the professional mechanic. If we don't recognize that we need the professional mechanic in automation, I'm sure we'll fail. I walk around with my arm around the data processing supervisor because I need him, and without him we're not going to do the service to the city of Sioux City that we should do. So many businesses have failed, I believe, because they failed to recognize they've got to pay the price for somebody that knows something that is the newest innovation in business today. You have to pay the price.

I think another great problem we have in the field of automation is to plan with great detail and thought. Our hope for refining our present operations is to provide the greatest efficiency and effectiveness to the public. Private business is doing a better job than we are, I believe. They are advancing in this field at far greater speed than local government. In closing, I feel that we must accept this responsibility, if we are going to maintain this level of competition, and we have to admit it's competition, with the taxpayer and with private business.

GENE ABBOTT*

I will tell you something about data centers to begin with so we will have a clear conception of what data centers really mean as far as serving municipal and county government, and industry. In Iowa you will find many service centers; they call them data service centers. You can look in any phone directory in any city in Iowa and you'll see data centers listed. However, the type of data center that I'm going to be talking about is different. Data Technics furnishes the technical people to go and handle the account, to engineer the system, program it, run it on the equipment, and deliver the end product. I think this is the only center of this sort in Iowa. I might add that this concept has been picked up and within the next year, I believe in February, you'll start hearing about it. There are going to be sixteen data centers established in Iowa to do nothing but to take care of the requirements of the communities here in Iowa. This will mean both municipal and county government, and industry.

Our data center was created a little over three years ago for the purpose of solving the biggest problem that faces us today—a tech-

*Data Technics, Des Moines, Iowa

nical people's problem. The present city manager came to the city of Des Moines at a time when they had two computer systems there, an IBM system and a Remington Rand system. This system was doing a job that evidently wasn't satisfactory because Mr. Chenoweth asked us about which way to go. I might say at the present time we furnish two full-time engineers to the city of Des Moines. I'll just go over a few of the applications we are doing for the city. We are doing: budgetary control and appropriation accounting, warrant listing and reconciliation, employee attendance records, payroll, payroll distribution, equipment and vehicle usage, cost records, road and streets inventory, engineering drawings inventory, microfilm aperture file, vital statistics analysis, traffic violations analysis, and traffic courts summons control. The last, traffic court summons control, has been a major item in Des Moines for many years, and I can say today this is running very smoothly and the results are quite dramatic.

We anticipate several additions in the future. It is projected the library system will be eventually programmed and put on this system. The fire department, the airport, and the water department will all receive attention. But the city of Des Moines is the largest city in Iowa. It takes a great deal of effort and work and coordination just to establish data collection systems for these various departments. The progress to date has been very good. At least as head of Data Technics, I am very happy with the results that we've got here so far.

I might tell you of some of the equipment that is being used in our industry. Most of the equipment being used in this area is the 1401 magnetic tape system. Some of the installations in this area with the card system are called the 1401G; that's just a plain card system. Some of the new equipment that is coming into Iowa and being used a lot now, is the Honeywell 200. We use both IBM and Honeywell equipment. There is also the 1620 computer which is designed primarily for scientific usage. Most of your usage in Iowa at the present time is application by engineering firms. We used a 1620 to do engineering problems but we needed more capacity and therefore we moved off this equipment.

The big problem in installations in city government comes right back to the people problem. I'll give you the advantages of using a data system or data center. I'm not trying to sell this thing. I'm just going to point out some of the advantages. We are saving the city of Des Moines approximately $4,000 a month by using our type of service compared to having to have their own system and

their own personnel to do the job. This doesn't take into consideration that with our system we have to back up our engineers. In our contract we furnish two engineers full time to the city of Des Moines. That means if one of those men gets sick or leaves us, we must have him replaced immediately. If the city was doing this, it would have to have someone to back up those people that you have on this job, because if they're writing a program and get sick or leave you're lost. You have to bring somebody else in and practically redo this thing. This is being changed somewhat. This year they are pushing COBOL language—business oriented language. Theoretically, any programmer can read it and understand where he is and simplify a lot.

Anyway, by using a data center type of a service, you eliminate this people problem. At a convention this summer in discussing this, the consensus of opinion from people all over the world was that within the next five years the programmer as such will move on up to the level of the scientist. I think that they're probably right, but I think they're talking about more complicated systems. And here in Iowa outside of the University, and perhaps Iowa State, there are no truly big systems or what they call real systems. When I say real systems, I mean on-line, where you have a communicating device in your office or building and you merely communicate with a big central computer. Now this will become a reality in Des Moines within the next eighteen months. We will have a real system, in operation we hope, in somewhere around eighteen or twenty-four months. We have a large 360 moving in and this will be an on-line system with some of our industrial accounts. This will gradually work in with the various municipal and county governments.

The big thing is the people problem, and there is where an organization such as ours can do a job for you. And when you're thinking about data-processing, don't overlook this thing. Anyone that has a good financial statement can own a computer. But no matter how much money you have, you can't always own technical personages you need. Like Mr. Weiner said, he walks around with his arm on the shoulder of his EDP man. Well, I don't think he was kidding, because this is the problem. There are many young fellows around the country that are properly oriented and who have a good knowledge of electronic data-processing. But they're probably just like city managers. You find a group of good city managers, but out of the total you find just a few real good ones. We have to search all over to find just a few real good engineers. We've done this.

I think the best news I can give you is that within this next year your communities are going to have an opportunity of using the services of a large data center in your area. I think that's the most promising thing that I've seen coming here to Iowa. Back east they are beginning to realize that people out here in Iowa are quite hep on this field of electronic data processing. The people at Poughkeepsie with IBM, and those at Boston with the Honeywell started telling me about the University of Iowa out here. You know, they're working on scanners and so forth back there. And the president of one of these companies said that at Iowa they've developed a scanner that is far superior to ours. It was interesting to me to hear him say this.

I might add another thing that Des Moines started. This is the first time in the history of the United States that a city government ever went on a central computer to have its work performed; a computer that is owned by private industry and which also does work for county government and private industry. So there's a lot of firsts happening out in this country.

I want to tell you about some comments of the finance director in Des Moines. He said his greatest fear when he started this thing was that our engineers wouldn't know enough about his business to be able to do the job. Well, that is something to think about. But if you stop to think about it, if the systems engineering remains the same, the applications might vary but fundamentally the theory behind it remains the same. The real requirement that we called for in our engineers that work with the city was for men that were good diplomats and had a real good knowledge of systems. I think outside of that we would have been in trouble, because you have to have some real good diplomats to work with different personalities.

The other point that he mentioned was that he thought that he might be short on being able to get immediate reports. For example, you might want to run a few cards through and get a little answer or something. However, he concluded that by not being able to butt in on the machine and get little reports, we probably saved the city a lot of money, because we eliminated the unnecessary and are now shooting for the necessary.

ROBERT W. MARKER*

It was my pleasure earlier this week to spend three or four days at Stanford University talking about some of the cutting edge areas

*Director, Iowa Educational Information Center, The University of Iowa

of the use of computers. This group was an invitational conference of individuals from all over the United States who had come together to talk about computer assisted instruction. This flies a little higher than some of the things that we are now doing. It was near the University of California Berkeley campus, and I saw a striking sight that I would like to share with you. We were sitting in our motel having coffee, and saw three chaps, all bearded and sandled, coming down the drive. The first one had a big sign on it, and it said "Fold." And the next one came by and it said "Spindle." And the third one came by and it said "Mutilate." That's the tenor of the times in California.

I will spend a little time describing our work here at the university. I could spend all day with you on this, but I will give you a little preview as a background to my comments. My comments to you are related to what I consider the levels of sophistication that, whether you like it or not, you will be finding yourself going through in the next decade or so. We've looked at some of the pioneer work that's being taken care of here and I can rather confidently assure you that in some way or another most of you in the next few years will have to come face to face with this problem. I could spend a good deal of time talking to you about the problems that the university faces in the explosion of knowledge. Things seem to get more complicated every day. We have had a doubling of the knowledge. It took us some several hundred years to increase our knowledge over time, but in the last few years we've seen a doubling of what we know every five to ten years. You can talk to a chemistry professor on campus and what is now being taught in the secondary schools of the United States is considerably greater than the cutting edge of knowledge ten years ago in education.

Briefly, the university has a good establishment of equipment; I won't burden you with numbers and names of this at this point. But I would like to say that our role at the Iowa Educational Information Center has one major purpose—to do research and development work in the systems associated with educational uses of data processing and computers. We have received some grants from the Ford Foundation and from the U.S. Office of Education and from the Office of Economic Opportunity, to carry on this design and development work. You have probably heard of some of our affairs. The university has as I have mentioned, rather elaborate equipment. In fact, IBM rents equipment from the University of Iowa, and one of its associated quasi-corporations. I probably should qualify that. IBM recently purchased the Science Research Associates in Chicago,

and the Science Research Associates before they were a subsidiary of Iowa, had leased from the university—the Measurement Research Center—two of its scanners. So now we find ourselves in the rather ridiculous position of leasing to IBM data-processing equipment.

The scanners which I mentioned have served to close the major gaps in computer and data-processing applications, and perhaps I can just sketch this very briefly. I don't know the kind of equipment you use in Sioux City nor the level of operation that you're working at, but let's take printing speed. The lowest electro-mechanical speed would run something like fifty lines of print a minute on a tab machine. I'm sure you're beyond that to 150 to 200 lines a minute. It was quite a step when we would go up to 200 lines—that's complete lines of print—every minute. At this point the university has several printers, that have been developed over time, that now print as high as 1,100 lines per minutes. When the stuff starts ripping out of the printer at that rate, it looks like toilet paper after we won the game this afternoon.

The second major breakthrough in terms of processing has come in the central processing activity itself. I recently sat on a doctoral oral committee and it was stated by one of the professors in that committee that ten years ago you wouldn't have been able to accomplish this research. It would have taken you ten years, ten man years just to calculate the multiple regression equations necessary to come to these conclusions, and he was probably quite correct. As a matter of operating fact, this probably took about thirty minutes on the large scale 7044 university scientific computer located on this campus. The speeds of operations for a single operation in the internal processing on these machines has gone from measurement in seconds, to miliseconds, and right now we're talking about menoseconds. That's an interesting word. All it means is one billionth of a second. We have some rather elaborate statistical analyses that we run, and we have a little clock on the machine to tell us how long we've used it. When we get the report it says thirteen seconds or ten seconds or thirty seconds. These speeds have increased tremendously.

The one place where our speed of operation has not been increased is in the input stage. By and large across the face of the United States today—other than the share-time kinds of devices and terminals we have—it is necessary in order to get into this machinery to sit down at a key punch and to punch holes into the card in order to get your information into the system. This operates similar to a typist,

it's not a whole lot different but it takes a bit of a different skill. On the other hand, it is relatively slow. We have some applications using the scanning devices wherein, rather than using a key punch operator, you can read right from an ordinary pencil mark on a sheet or a card and easily get into the system by putting these through a high speed scanner, which was mentioned earlier. They can be read with considerable accuracy and edited as they go through the process.

This capability has led to the possibility of establishing the information center which I'd like to spend a minute telling you about prior to going to the levels of sophistication. The information center was created as a joint agency for research and development work, between the university and the State Department of Public Instruction. You're quite right in the industries' estimate of Iowa as a data processing leader. The State Department of Public Instruction in the State of Iowa was the first state to actually have an operating computer in the State Department of Public Instruction. Today, every state department of public instruction has access or has in its environment a computer of some sort. We were without one for a bit in our state department. They now have their computer returned to them.

The number of school districts that have computers in the state of Iowa is not large, but they are significant. The computer has an impact in three different ways on education. First of all, education has to be concerned about teaching about computers. Many phases of the curriculum have already been changed to include the effects of automation in the subject matter. What does it mean to have automated assembly lines and automated factories? What are the problems of society in dealing with these machines?

Education also has to deal with computers in the sense of teaching them in a technical or vocational sense—in preparing the machine operators. In addition, the educational enterprise has the problem of using these tools in an instructional mode. This is a bit on the cutting edge at this point. I would confidently say that within short order we will be seeing these devices used as an instructional device. It is economic to the extent that major companies are putting a massive effort into the preparation of these machines. Again, this will not do away with teachers. In fact, in my estimation, it will probably increase the quality needs for teachers, and increase the numbers of these quality teachers.

In addition, of course, the computer has a role to play in the management and administration of our educational enterprise, which

is the largest non-military activity of the United States. It is a big business—something like forty-seven billions of dollars.

I think I would call your attention to one major fact. Education in the United States, as much as we like to think it's local, and as much effort as we put into local connotations is a state enterprise. It is a state enterprise by constitutional fiat in the United States and in the several states. And this has a relationship to the problem of information. Our state department and every state department has a need for information about the pupils, information about the teachers, and information about the financial affairs of each of its district constituents. The best way that I can give you the idea that education is a state function, I think, is to ask the question: Is a local school board official a local official or a state official? He is elected locally, and we would normally assume that he like many others constitute local officials. This is not the case. He is a state official. And I can draw your attention to the situation of New York City some time back. If you recall, the superintendent at that time was building a boat and a shop for his own personal use. There was a custodial problem where each custodian was given $50,000 to run the school for the year. If he got through buying his towels and his wax, and he had anything left over of the $50,000, he could pocket that. That was good decentralized administration you see, because then he tried to do the job very efficiently. Well at that point we determined that there were a number of such custodians that pocketed something like $42,000 to $48,000 of that $50,000, and the schools just weren't getting taken care of. In this case the state legislature dismissed the school board, and in New York City they have a fiscal relationship—a dependency—and the school board is appointed by the mayor and the city council. While they are appointed by the mayor and city council, and this would equate with our school board elections, they were dismissed by the state officials since they have the ultimate jurisdiction in matters of education.

The state legislature is the big school board in the state of Iowa. For this reason we have been working with the state department in developing statewide systems that give us information at about a second level of sophistication, that I will mention briefly later on. Our purpose is to develop a system not only to collect information, but to store it, analyze it, and retrieve it on demand. We don't want simply information but to put the data collected in a meaningful relationship. This we call integrated data. Let me give you an ex-

ample of what I mean by integrated data. If I give you the figure thirty-six this may mean very little to you. If I give you thirty-six inches, at least now you're starting to draw some information from the data. You now can infer that it's some kind of linear measurement. If I add to this even more data like thirty-six inches—twenty-two inches—thirty-six inches, you start to get a little more information in the data. As a matter of fact, at this point you might infer that this is a bale of hay or a babe in dismay. The point is if you have just a little bit of data, and the more data that you can combine with this to create knowledge, then you start to get information. If, in fact, you did find out that this was a babe in dismay, and in addition you had such information as the telephone number and address, and whether or not she was married, you start to get information. And this is what I mean by integrating data to create information.

The information center's main task is to develop a system that collects information about pupils, teachers, school buildings, courses of study, and finances. These five tracks are combined in such a way that they may be integrated to answer the question: What student was taught by what teacher? What courses did he take? What facilities are consumed—the building, the audiovisual apparatus—and at what cost? I don't mean cost per pupil on the average, but how much does it cost a child to read? These questions we don't have answers to; they're basic accounting questions. We haven't done very well in education in this field.

Let me give you a few statistics about the information center before I turn to how this might affect you people. We had collected last spring, from every secondary pupil in the state of Iowa, information as to his educational aspirations. Does he choose to go to college? And does he really expect to go to college? We have this information for 227,095 students in the secondary schools of Iowa in such a way that we can relate these responses to those teachers that are teaching these students, what periods of the day they are being taught in, and what courses they are teaching. We have not yet been able to attack the facilities, other than just what room is being used, nor do we have the accounting tool of tacking the finance date to this. But this is a major breakthrough and we have the information on the 30,000 teachers in the state of Iowa. We have the information on all the courses taught in Iowa. We do have the financial information from each school system, all of this on magnetic tape, and we have developed this not for our own use but for the state depart-

ment's use. It was operational information but it is also available in a form that is researchable.

In addition to this the information center provides a number of services to schools which are usually termed up-date services. Scheduling of secondary school students, grade reporting to parents, attendance accounting, and student ranking services are available to schools in Iowa through this service. Something like 60,000 students were scheduled last year. A number of students were reported for attendance, and grade reporting, and this system seems to grow. We are not a central data-processing service for these local schools and we are working with the local schools that have equipment to develop their own programs for this.

People are important, and it's necessary to work at this level with the best available people possible. There are a number of schools in Iowa that have their own equipment, but these are primarily used at this time for teaching purposes. Cedar Rapids has a computer system. Ottumwa Technical Center, which is a manpower training program, but loosely connected with the Ottumwa school system, has a rather elaborate computer training program. The Davenport public schools and the Des Moines public schools both operate training programs. Few of these—I think Cedar Rapids is furthest along—are using these computers for other than training purposes. Two counties are involved. Polk County system has a small record establishment looking forward to computer operation. And the Scott County group operates equipment.

Let me turn to what I call four levels of sophistication that anyone working with computers goes through. The first level that I'll talk about is simply the clerical tool level. Most schools are at this level. In the United States we have over a thousand schools using some kind of computer equipment. Most of them are at this level. I think the second level, and the previous speakers started to talk about this today, is what I call the administrative control level. The third level I would like to call management by exception level. The fourth level I'll call for lack of a better term, the cybernation level. And cybernation here means the social control of society by society through machines—cybernation or automatic administration, if you will. We're going through the first level of sophistication. We've talked about a number of these things, like payroll and subsidiary records, W-2 preparation, accounts payable, and census data. These things are done now. The idea is that we are doing things that human beings already

have done. We are doing them in a different fashion perhaps, a little faster, more accurately, and more timely, but nevertheless, pretty much the same thing that we have been doing.

At the second level of administrative control, we find that the administrator having lived with this system for a bit, finds that if he was a little more careful in planning this he could get a little more information out of it. If he had happened to have gotten people together that planned the payroll program with the people who are working with the personnel records he could have given the payroll number to an individual the same as any other number and he could combine them. I'm sure you've already been through this part of this stage. If, however, they had made the mistake of putting the payroll check in a different kind of category than the other information, he's at a loss. He can't combine the information. When I first came to the university I had two numbers. I had an employee number and I had a social security number. In the meantime the university has done away with the employee number. They said why should we spend all this space and time and extra printing in keeping two sets of numbers, when one number would do the job. I will have to say, however, that the university system is not yet explicit, because there are a number of definitions of what constitutes a staff member of the university. For the payroll records I'm one kind of staff. For the purpose of obtaining a parking sticker, however, I'm another kind of a staff member. If you went right down the departments of the university, looking at the Registrar, the Business Office, the Dean's Offices, the Parking Office, the Police Office—each has its own definition. Our own university has this same problem staring it in the face of developing a systematic approach of common definition of people and things.

When the administrator comes to this point he can start to combine these things. Another example might be that if you had identified a tract of land for land-use study, with one kind of designator and then decided to look at census information and started to look at a whole new set of numbers and identifiers, you've lost a good deal of information. The problem now, in order to gain administrative control, is to plan these things in a unified fashion. I think one of the most important is police records. We have spent very little time on this this morning, and there are a number of applications in law enforcement that are exciting people all over the country. I can think of a number. We now have, still in the research stage, the attempt to read fingerprints with digital type equipment. This possibly might

serve the same function as the scanning devices as a quick input into a machine for identification. Many years ago, back in the Twin Cities, I ran into the system of using a simple device to develop a random roulette system of staggering the patrol cars. This made sure these were covering the city as best they could with the limited equipment they had so that they would be appearing on any given corner on a random basis so that nobody could compute when or where the patrol car would be.

More interesting is the report from New York City about the corral system. This involves one member of the police force sitting at one end of a bridge with a microphone. His job is quite a simple one. As each car goes by, he reads the license plate of the cars entering the bridge. He doesn't necessarily have to read all of them, but he reads those that he can find time for, and if he sees any with broken glass in the front wing window, or a bent fender, he will be sure to catch those license numbers. This is related to an operater with earphones whose only job is to type in that license—the several digits. These are instantaneously compared in the electronic memory device and if there is a violation, and it might be simply the violation of a traffic ticket, the information is radioed back—and this is all in the time that the car has to go across the bridge—to a patrol car at the other end of the bridge. *Life* magazine had a picture of a gal in bermuda shorts and suntan outfit who was picked up as the first individual. She had not paid a parking ticket five years prior and thus was listed in the memory of the computer as a violator. Now that seems rather silly, but on the other hand, a number of stolen automobiles and other criminals were apprehended in this fashion.

The point I wish to make is that the systematic approach to information requires an elaborate study. As a matter of fact, the words "systems analysis" today, are worth about $100,000 to any industry contracting with the government or private business for a study. If you put systems analysis in your program the mystique of this alone ought to be worth about $100,000. It connotes interpolation, extrapolation, and correlation, and a whole bevy of Phi Beta Kappas running around studying your problems. It's not quite that fancy. It's simply that you take a look at every possible impingement on your problem and plan a system of attack that includes all of these approaches in a systematic manner.

The third level of sophistication is one we very seldom reach—the management by exception level. After an administrator or city manager finds that he can get all the information and he can use it in

these interrelated ways, he starts to ask for more and more. Pretty soon every Monday morning he has a mound of paper on his desk. And he no longer has much control, because he can't possibly flip through all of these pages.

Now a new element can come in. You can also program these machines to say: "We don't wish to look at all of the information, we just wish to look at those pieces of the information that are most significant, or those things that are out of order, or those things that need my immediate attention." In education we are doing this on a very simple basis with academic marks. As we go through the process of reporting to parents the academic marks earned by children, if I had a B average last semester, let's say a 3.0 average, and dropped down to something like 2.2 this semester, I can program the machine to point out directly to the guidance personnel the students that have dropped "x" points. This is management by exception. Now the guidance director or guidance counselor need not study every child's record. He will have to deal with the limited capacities that he has with those students that have the biggest problem. The same is true in the management of a municipality or any other enterprise.

At the cybernation level, I'm speaking of those things which surpass the existing capabilities of the human being to treat information. And I have to admit I'm not sure how this will fit into the municipal environment, but let me give you a few examples of how it will affect education and you can draw your own conclusions. We are at this point unable to find an optimum schedule in a secondary school for the placement of students with teachers in existing classrooms. We do a good job of scheduling. We have an elective system in the United States as you know, but let me give you an example—I have 700 students. Each of these 700 students wishes to take five solid subjects of one hundred courses offered. I have a limited number of rooms to provide this program. So I have 700 students, any combination of five of a hundred different courses to be located in a limited number of rooms with a fixed amount of faculty. The permutations of this run into the millions—the possible combinations of teachers, pupils, rooms, and courses. What we need is an optimization that gets as close as possible to provide this schedule without providing conflicts for the students. I think in measurement and evaluation we will use this equipment to go far beyond what the human mind can do.

I mentioned the Stanford conference. It is possible now to measure and evaluate the educational process in a somewhat different fashion. Assuming that we are using some electro-mechanical device,

electronic device in the teaching process, or even as a monitor of the teaching process, it is possible, for instance, that we wish to set the criterion that in the fourth grade we want children to learn 5,000 words in their vocabulary. We wish them to spell them correctly, use them in context correctly, and know the meaning of these 5,000 words. We can, then, rather than giving the child an A or a B or a C at the end of this period, tell the parents and the child of the 5,000 words the child now knows 3,482. And here is a list of the words that he doesn't know. We're not very far from this, and as a matter of fact, it has been done in an experimental fashion.

I think that these kinds of things would work on urban planning, traffic control, and regional planning. In closing I would like to echo the thought of my colleagues that people are as important as the machines. In fact they are much more important—not only the technicians but the professionals—the city manager himself, his accounting staff and his operational staff. And if I may take my minute of discussion, I would like to close with a brief story about the three men in the boat. These were the three same fellows with their beards and signs that I spoke of at the beginning of my talk. Now they are through carrying their signs "Fold," "Mutilate," and "Spindle," and they are off relaxing in the boat. One of them happened to be a medical student, one of them an engineering student, and another a data-processing man. These three fellows were arguing as to who represented the oldest profession. Now they were gentlemen, so they didn't have to argue the other aspect of this. One said, "I think a surgeon is the oldest profession because I'm a student of the Bible and I read in the Bible that God took a rib from Adam and created Eve and if that isn't surgery I don't know what is. This is obviously the oldest profession." The engineer mused for a bit and he said, "Well I'll use the same reference and I'll go back to Genesis. There it says God created order out of chaos. Obviously this is an engineering feat unsurpassed, thus the engineering profession is the oldest profession." And expecting some rebuttal they turned to this student of computers and information science, expecting some kind of a comment. And they got one. He said, "Gentlemen, who do you think created the chaos?"

COORDINATION OF COMMUNITY ACTION PROGRAMS

HON. JOHN R. SCHMIDHAUSER*

For this occasion I think that it would be appropriate to describe to you informally the general philosophy, thought, and, to some degree, the extent of political combat over the years that went into the development of the economic opportunities program. Certainly first and foremost, in order to even begin discussing this program, it was necessary for Congress to enact legislation. There were two streams of opposition to this conception that presented formidable problems over the years and will present formidable problems in the development of the program.

One concerns the general philosophy of those who over the years call themselves, for want of a better name, liberals. There was a deep commitment, particularly by older members of Congress, to those programs which they themselves in very bold and daring fashion for their generation, designed particularly during the period of the 1930's. American political life has had recurrent waves, so to speak—expressions of concern—that were transformed into legislation throughout our history. Some of the most dramatic and long lasting of these were the legislative impact of the Wilsonian era and certainly, for those in that age category, the great impact of the Roosevelt years.

It is very interesting to note that this program, and the legislation that provides the framework for it, was perhaps the first modern recognition that the great breakthrough of the 1930's had failed to some extent. I think it's particularly appropriate for us who are the political heirs of that era, as I am myself, to recognize that the new programs were designed by those who wanted to solve the problems that the older programs could not solve. And this was done certainly not in a spirit of destructive criticism of those old programs, because there is no one living who has a greater admiration for the courage

*U.S. Representative, First Iowa District

and initiative shown by those congressional leaders of that era, some of which are still serving in the House and Senate today. Some of those men, incidentally, were architects of the new programs.

If there is any simple lesson that can be learned from this it is perhaps that those who would constructively criticize these programs as part of the necessary function of legislative oversight which is part of our own responsibility, perhaps are best equipped to do it when they are deeply committed to the purposes of these programs. Then the criticism comes from that spirit of constructiveness that is designed to make the programs work. And it was out of this same spirit that new legislative leadership designed what we commonly refer to as the poverty program in the mid 1960's.

Now what are the elements of this? This is certainly a delicate and sensitive matter, as any attempt to do what civilization itself has found very difficult to do in the past, would be. One, is its recognition of the inability of existing programs to meet the problem. This was not designed as a method to destroy the existing programs, or to discredit those who had administered them and had devoted so much energy and compassion to that task. It is, however, I think, noteworthy that we may look at the problem in this way. Shortly before World War II one of the most eminent of British social historians wrote a tremendously perceptive analysis of the social impact of the Elizabethan poor laws. Now those who are interested and have participated in any work that is designed to contribute to the public welfare, today know that the Elizabethan poor laws had become, in a sense, a symbol of what was bad in social attitudes in an earlier age. It's remarkable to note, however, that some of the legislative architects of that program, at the time it was designed, were men of compassion who thought honestly that they were designing something that was going to meet the peculiar problems that were being created by the great movement from rural England to an urban setting that, even to our present day, was so remarkably cruel and barren of human compassion that it has become a symbol of our need to assume greater social responsibility even today. And in this perceptive historic analysis of that setting, this British historian did grasp very fully how good intentions in legislation can go astray. Or, more appropriately, how new conditions growing out of some existing conditions that could not be met by the legislation, destroyed the very intent of that humane legislation, per se.

This was the challenge that we have today. We have looked over the impact of this earlier compassionate legislation. We have now,

experimentally, tried to design something that will meet the problem. In many respects, the administration of this program is going to be, and has been, as challenging as the writing of the law itself.

For one thing, there is that very simple intent that those who are among those who are to be helped shall have a meaningful role in the development of the program itself. This is a goal that is both praiseworthy and fraught with exceeding difficulty in accomplishing. The difficulty in itself that arises from this is from the very nature of the situation in which we find ourselves in modern America. We are in what Galbraith has referred to: living in an age in which to some extent we can call ourselves an affluent society. And one of the remarkable paradoxes is that at the very time that economic well-being is shared by perhaps more people in more intelligent ways than in any period in our history, the most deplorable conditions not only continue to exist, but in some regions and because of social circumstances, have become worsened.

There are a variety of ways to put one's finger on the problem. One can take, for example, the levels of income that are available in the variety of statistics that our society abounds in today. Here one can see that while income has raised in so many groups, those who are on the very bottom rungs have not only not increased their prospects in this situation very much, but in fact in the comparative sense, their situation has worsened in comparison to the 1930's. Eloquent tracts have been written on this, perhaps among the most influential and perceptive, we could include Harrington's. But the recognition of the problems that come with this intellectual breakthrough has now been translated into what can be perhaps one of the greatest experimental pieces of legislation that has been written concerning the problems of poverty in mankind's history if—and this is the big if—we have the intelligence, perserverance, and flexibility to make it work.

This I think, is enough for our purposes here as a summation of the philosophy that has gone into this legislation. I have purposely felt in my own role in this as a representative of a district that certainly has its substantial share of this particular problem that despite the tremendous feeling that I have that this must be made to work, I think that after the Congress has given its support to the program, we must overselves show considerable restraint in making sure that the program is not destroyed by vulnerability to the kinds of attacks that are necessarily going to be made upon it. For this reason, despite the fact that perhaps there has been one of the most heavy applica-

tions of the various aspects of this program in southeast Iowa, I have often felt that those groups that are readily taking up the battle on this will receive every possible help, and have had from me in the processing of their applications, cutting of red tape, and the resolution of difficult conflicts that obviously arise. At the same time, viewing the intent of the law, which I myself participated in renewing and extending this year, expanding rather substantially, I feel that the greatest single mistake that could be made would be any attempt by an elected representative, at any particular level for that matter, to go into a community and insist that that community participate per se. This is in the nature of one of the most difficult political problems, because no one in political life, I can assure you, is endowed with a very heavy sense of self-restraint in terms of these things. But I think that this is going to be one of the keys to the success of the program, and I would say that from our early experience with this in this region, there has been a most noteworthy acknowledgment of this problem in these communities and a ready grasp of the nature of the problem and a deep interest in local leadership in working this out.

This is, of course, the task and objective that we have, and if we succeed America will have succeeded in improving the quality of American life and setting an example for mankind that no other nation, modern or ancient, has ever been able to do. With this kind of challenge before us we certainly do have a deep and abiding responsibility for the way we attempt to carry this out.

C. Edwin Gilmour*

I think Congressman Schmidhauser has done a most pointed and persuasive job in tracing the philosophical and historical strains that fed into the Economic Opportunity Act of 1964 and in sketching for us the promise and the potential of this program. If I may be permitted a footnote, John, I think you're quite right that the most imaginative, progressive, socially responsible programs of the 1930's were designed for the conditions of the '30's. They were designed for an era of scarcity in which society did not have societal resources to do much other than soften the effects of poverty. This means that the 1935 Social Security Act which President Roosevelt proudly pointed to as one of the most important accomplishments of his twelve years in office was appropriate and effective for its era—an era of scarcity. But

*Director, Iowa Office of Economic Opportunity

when President Johnson, thirty years later, stood before the Congress asking for this Act, he pointed out that we living Americans, you and I, represent the first generation of any country in the history of the world that has the resources both human and material to eradicate this age old scourge of poverty. We couldn't blame our forebearers for not doing much more than they did do—as John has said this was humane and responsible—but I think if we do only this, then those who follow us are going to condemn us for a lack of imagination and social responsibility.

I've been talking repeatedly the last five months about the new philosophical and operational approach to this problem of poverty. Under the 1935 Social Security Act, the Congress of the United States, speaking for the people of America, have said that we are going to take care of our disadvantaged. We are going to feed them, and we're going to clothe them, and we're going to house them. But the significant thing to note is that missing in this is the additional effort, the incentive and the means whereby they can get out of their condition of being economically disadvantaged. And there is nothing in the Social Security Act that speaks of this. The significant thing is that the 1935 Social Security Act was amended every session of Congress from the first time it was enacted. And yet, it wasn't until 1962—twenty-seven years later, over a quarter of a century—that there was any mention of the words rehabilitation and retraining. This is unbelievable, from my point of view, in retrospect. And significantly the 1962 amendments provided for pilot projects as they were called, in all the states. Federal funds were appropriated. They had to be matched by state legislatures. And in Iowa the excuse was given that we didn't have the resources to match it, but the truth of the matter was that we didn't have the imagination to match it. But whatever reason, here in Iowa we've never had the funds to take advantage of the 1962 Social Security Amendments. So thirty years after the adoption of the Act we still are merely custodizing these people: feeding them, clothing them, housing them. And the disturbing thing is that instead of reducing, to say nothing of eliminating poverty, the problem is getting larger. The Congressman points it out. I saw figures here some time ago that since 1957 while all the population of the country has gone up by 15 per cent, the cost of public welfare has gone up by 57 per cent. This is certainly a paradox that at the peak of the greatest prosperity we've ever had we appear to have more hard-core poverty than we did even in

earlier times when our society was less prosperous or affluent. This should itself raise some serious questions.

What we're hoping to do under this act, is to substitute for this rather unimaginative and demonstratively unproductive national policy of merely custodizing our disadvantaged is an imaginative and a promising policy of human reclamation, retraining, and rehabilitation. What we are going to do is to maintain the present program. This is one of the great misunderstandings, that we're going to set up a program here that's going to duplicate or compete with or replace the existing. No, we aren't. What we're going to do is to stand on the shoulders of the present programs and reach still higher. We're going to expand and enrich, and we're going to have a new orientation and new resources, instead of merely custodizing these people. The reality is that this policy has perpetuated poverty, and as I noted even some statistics suggest, we've accentuated it. Poverty has been begetting poverty. There are people who have been born into poverty; they live in poverty; and they die in poverty. And their children after and their parents before them, they know nothing but poverty. Michael Harrington says we have a separate culture. The other America that he talks about, where people live in a state of helplessness and hopelessness, of powerlessness, or purposelessness. We are going to invest some additional resources. And they are not necessarily money resources. In fact, in my judgment, the least important part of this is the investment of additional money resources. We're going to do two things. We're going to call attention to the fact that this policy we've had for thirty years is not only irresponsible but it is socially and economically indefensible. The present council of economic advisers here last January pointed out that in the eleven years from 1953 to 1964, the total dollar value, estimated dollar value, of lost production represented by this retarded group—the underemployed, the unemployed, the underprivileged—amounted to a fantastic 549 billion dollars. In case you haven't noticed, this is almost twice the amount of the national debt.

Conceivably if our Economic Opportunity Program had been in effect, imaginatively and productively in these eleven years, and we brought these thirty-five million Americans who are unproductive back into the mainstream of our society with all their additional contributions, we would have had enough additional societal resources to wipe our whole national debt and to build all the high schools and highways and the hospitals and the other public services and

facilities we so desperately want and need. This is why I say this program should be appealing to the constructive economic conservatism of Iowans. I remind my conservative friends that the root meaning is to conserve. And we have not been conserving our human resources the last thirty years. We've been wasting them wantonly.

What I'm saying, if we bring these people back in as purposeful and productive citizens, we're doubly blessed. As it is now we're doubly punished. On one hand, we're denied their potential contribution and on the other hand, we're paying out enormous social costs. Here in Iowa the last session of the legislature appropriated sixty million dollars for the public welfare programs in this state, and it only appropriated fifty-four million dollars for elementary and secondary education. This strikes me as an odd value system in which you invest more of your resources in custodizing the disadvantaged than in investing in the future of the state—the young people, and I think this again ought to be awfully disturbing. Last year it is estimated, nationally a total of five billion dollars was spent in just the overt public welfare, another two or three in private programs. These are the overt costs of poverty. Poverty is not cheap. It's damned expensive. This doesn't take into account the incalculable social costs related to the antisocial behavior that so commonly accompanies poverty. The Department of Public Instruction here two months ago made the report on a study they made the past school year, 1963-64. They reported that in this one year, 7,200 young people in Iowa dropped out of school. This is 1.2 per cent of all the children who were in school that year. And they went on to observe that if this were a typical school year, this means over the total life of the person of the spectrum, 15 per cent of Iowa youth entering kindergarten do not complete high school. This is a time when Secretary of Labor Wirtz says that in the next ten years just to be a worker in our highly automated industrialized society is going to demand the equivalent of a junior college education. Here these people are not finishing high school.

This is a social waste and a social cost, the school drop outs. Think of the incalculable social costs of juvenile delinquency which is related to it to school drop outs, to crime, to marital instability, to riots. Whitney Young of the Iowa Welfare Association the other evening pointed out that because we Americans carelessly, casually did nothing about the conditions in Watts, the substandard housing, the absence of education, the absence of vocational opportunity, and worst of all the absence of hope, and promise for these people,

they rebelled. We sowed the wind, and then we reaped the world, when in eight days thirty-eight people were killed, and $170,000,000 dollars damage was recorded. This again is not economic conservatism. This is economic stupidity.

The point I'm trying to make is—the whole rationale of that is that we are cheating ourselves. This is not their poverty and their prosperity. This is our poverty. The whole economic pie is smaller because they are poor. Our whole nation is smaller. What we've been doing, even at this peak of the greatest prosperity we've ever had, as I said, our economy is using only 80 per cent of its human resources. This is like having an eight-cylinder engine running along on six cylinders, lugging the dead weight of the other two. Even an affluent society like ours cannot stand this. So I say it's not a matter of do-goodism. It's a matter of hard, cold, ring-up-the-cash-register, good sense that we are going to help these people help themselves. And from the humane, personal point of view, it's unimaginable the personal trauma and tragedy of a person who is demeaned and debased so that he has no self confidence and no hope. This is something that should offend all of us. Quite apart from the social aspect it means that we're going to help these people help themselves. In the process, we're going to help ourselves. This is the rationale. This is the promise. Congressman Schmidhauser is quite right. It remains to be seen if the people of Iowa will have the insight and the persistence and the purpose to achieve this promise.

Just quickly an overview of what's been happening in this state. If you read only the newspaper accounts you would think that this war on poverty in Iowa has been a losing one. The reality is, and I say this not immodestly, but as a statement of fact, that in the last five months we have made more progress in establishing community action organizations than any state in the total Midwest and conceivably in the country. We started way behind as I think you know. We now have ninety-three out of the ninety-nine counties that are either in an organized community action organization, or will be within the next couple weeks. My hope, and frankly my expectation, is that within the next three months we're going to have every county including those who voted negative to date. We already as you may have read picked up Van Buren County that had voted negatively last August.

What is the next step? Let's assume that we complete this organizational step. Now what's the next step? Well the next step, and it really is the step that we should have taken first, is that in each

of these community action organizations, the local people themselves must go out and interpret the program and its promise to the local people. Our state office has been trying to do this, and it's a most formidable, if not an impossible task, we've two field men and myself and we've covered the whole state. And there's really been no one else speaking pointedly or persuasively to the potentials and the procedures of this Act. And I think it's manifestly impossible for three of us to do this job. Now the only way you're going to get this accomplished, is for people like you, and I speak to you in two capacities, as professionals, I think you have enormous responsibilities and opportunities to make determinative contributions to your own community action organization, and secondly as individuals. I make the bold assertion that if this is going to be a war on poverty, it has to be a total war just as twenty-five years ago we won, because it was a total war—everybody got into the act. Everybody made some contribution consistent with his own peculiar skills and experiences. Well, I'm saying that this is another total war. And the only way that we are going to be successful is for all of us to get into this act and make a contribution just as we did twenty-five years ago. Well, coming back. What is the next step? Really the first step, is we have to sell this program to the people of Iowa. It's rather odd, is it not, that a program that was declared national policy fifteen months ago is still being debated here in Iowa. This is national policy. The Congress has spoken for the American people. It was signed into law August 20, 1964. The question is whether the local people are going to take advantage of this. But the reality is that a number of people for good reason, have hard, honest questions. I've always distinguished between two types of persons opposed to this Act. One is those who had very proper questions, and very natural concerns about it. Is this just another federal boon-dog or giveaway? Is this another example of federal program that is going to continue the flow of authority to the federal government and erode local responsibility and control? These are honest, proper concerns and questions. And I say to this group of people, we will speak pointedly, persuasively, persistently.

There is another group that I have referred to in other places, and I think properly so. There is another group of those who are opposed to this Act, who have no desire to inquire what its reality is, what its promise is, but who are out to see that it doesn't get an honest hearing. They are out to see that it doesn't get consideration. And I say to this group, I think they must be exposed as being inconsistent

with the whole democratic philosophy of public discussion, public debate, and public decision.

I'm saying that the monkey is on the back of local people in this program. This is not a federal program in spite of what the newspapers call it. The community action organizations that are building all over this state are the result of initiative and the insight of the local people banding together to accomplish a local objective. The community action programs that are being developed and that will be developed in the future are developed by local people. They are carried out by local people. Every dollar and every cent is going to be spent by local people on local projects. How can you call this a federal program? In fact, you remember Alexis DeTocqueville writing his very definitive description of American democracy over a century and a quarter ago, noted the tendency in 1835 of Americans at the local level to band together enthusiastically and effectively to accomplish local objectives. And he said that this was the strength of American democracy, in 1835, compared to the more highly centralized governments of the then contemporary Europe.

I make bold to suggest to you, and I think some of you that know me know that my whole adult life has been devoted to the study and somewhat to the practice of American state and local government, I believe that our American democracy, and you people would have no quarrel with this, I believe that our American democracy is going to be retained and refined to the degree that we somehow revitalize it at the local level. I say that this Economic Opportunities Act—because it is the most completely decentralized program that I know of in the last thirty years, in which there is a greater opportunity to, or a greater premium placed upon the local discretion, and local decision-making—this Act might very well be the vehicle by which we revitalize local government and local democracy. I do not know any comparable challenging assignment given to the local level of government in the history of our republic. It remains to be seen whether the professionals like yourselves, the lay leaders, and the total community is going to rise to this challenge. If we do, we're going to accomplish many benefits. We're going to do, as the Congressman said, something that no other civilization, and no other American generation has ever been able to do. We're going to eliminate poverty—yes—and its causes. This is the primary objective of the Act. We are going to have all sorts of peripheral by-products of this. Not least of which will be the revitalization of local government.

One other thing that I think is seldom spoken of in relation to this Act. It ought to be emphasized more. I've been all over this state in the last five months. I've been seeing meetings that begin at 8:00 in the evening and continue until 11:30. Meetings in which there is an enormous amount of interest. We had a meeting up in Gilmour City the other evening, where we had between 500 and 600 people. You have been reading of some of these other meetings in the counties. We had larger audiences than we had in the presidential campaign in 1964. I think this was encouraging. Now it doesn't mean that everyone comes out there with enthusiasm about this Act. Perhaps you know that some of them come out there to see that it doesn't get accepted. But I'm saying, this is a wholesome thing quite in itself. Anything that can excite public discussion, public concern, is ipso facto good. That's one of the fortunate by-products. But I say that one reason why they should accept this Act in any community, is that, and you people who are more knowledgable about Iowa than I am, challenge me on this if you wish: I say that in the last ten years our state has been subjected to an enormous amount of stresses and strains. Back in the middle 50's we had the tortuous, divisive, problem of school reorganization that literally tore communities apart. It began to set the rural people against the urban people with all sorts of mutual distrust and ill feeling. We still have a residue of this.

We somehow weathered this, and then we went right into the reapportionment battle. We opened up the same old wounds and accentuated the same distrust and ill feelings. And then the last session of the legislature we had this battle between labor and management, two big economic interests challenging each other, and with all sorts of ill feelings. Well I suggest that a state, like a person, can only stand so much of this divisiveness. I think it's high time, as we did in World War II, where people of all social, economic, political and religious persuasions got together on a common objective, and we accomplished something. And in the process we built unity. I'm saying conceivably this community action organization can be just that, in which you can have all people sitting together. And I think it's conceivable, if the promise of this Economic Opportunity program representing the community action organizations is realized, that we're going to build a stronger Iowa, not just through helping the target group, but through bringing Iowans together, focusing on the things we have in common, rather than emphasizing their differences.

And then let me close with this other by-product; it should be enor-

mously appropriate and appealing to you people. I'm sure that you have the same feeling that a group of school superintendents had in Scott County. I met with them here a couple of weeks ago, in which they admitted publicly, what I'm sure we've all been thinking personally, that at the federal level these new programs have been proliferated at such a rapid rate that no one public official is able to assimilate them, grasp them, and exploit them. And yet he has this constant guilty feeling, well, I should be looking into this and seeing whether or not I can comprehend the renewal resources. Well I think this is true. Top executives like you are always overprogrammed. You have too much to do just to keep your head above the water of the petty day-to-day operation. You don't have time to look ahead and to plan and to think of these new programs and how they may be brought to use in your community. And I'm saying to you—I'm told that there are 117 federal programs that conceivably can be brought to bear on community problems. Nobody to my knowledge knows what they are really. I was pleased to discover that your Institute of Public Affairs is talking about working up a directory of all these federal programs and putting it into a meaningful catalogue with cross reference. I made the same request to the State Manpower Development Commission and they promised they are going to do this. But if they do this, you as a city manager most probably are not going to have the time to sit down and begin to explore all of these. And I'm saying that if you have a good community action organization with a full-time professional person, that is his responsibility. And we're going to have in a moment Dave Kaloupek speaking for the Linn Economic Action Program, the community action organization in Linn County which is a model organization.

Dave Kaloupek*

The things that I have to say today are maybe a little bit down to earth; I think we have to start thinking in this way. We understand the philosophy of CAP programs but now we have things to do in our individual communities. So this is what I would like to focus upon.

Both of the speakers before me talking about being imaginative and creative. I say this is fine, but we have to be imaginative and creative on the basis of knowledge. We have to have people who are trained and who are knowledgable to do these kinds of things that

*Director of Research, United Community Service, Cedar Rapids, Iowa

have to be done. I work with a staff of thirteen people in our community action program, and we are busy all of the time doing a great variety of things which maybe we are ill-prepared to do. But we're learning. Yesterday is not the same as today. We have learned something new. We are involved in all aspects of community life. It's my responsibility in the organization that I work with to become knowledgeable about as many federal and state and local programs as possible. These are resources to communities. Community leaders such as yourselves have realized that these are resources, and through the community action program, you can utilize these resources using local initiative and local decision-making. I think the community action program is a model of this.

One of the other things that I d like to say is this: that the culture of the deprived is somewhat different than your own. I think that our imagination and creativity must be used in this context. These people do not perceive the city officials as maybe you perceive yourself. They do not perceive the lawyer in the context that I perceive the lawyer. They relate the lawyer to the prosecuting attorney, he is not a helper. The social worker is someone who checks on you, who humiliates you. These are the kind of things that we have to become more and more aware of in this culture of the deprived.

I've talked with people in this circumstance. They feel that they don't count, that their voice and their destiny is unimportant. Other people tell them what to do and how to do it. Through our community action program I think we're getting at this. The people are finding out that they do count, that they are important, that they can be treated with dignity. It's rather humiliating to go to a hospital office and wait maybe hours for medical or other service and not be treated. This is done. And this is the kind of thing that we are becoming more and more aware of in our community. And people throughout the community are taking measures to remedy this—to treat them with dignity. I think this is very important. You have to bend a little bit sometimes. In fact, sometimes you have to bend quite a bit and to try and understand the way we are perceived.

Let me tell you about our organization. We have developed in Linn County three neighborhood councils. The question was raised, can these work and are these valuable? Related to this is resident participation, which is a very important aspect for people who are not, or who have not, had a voice in their destiny. We've developed two urban and one rural councils. We've had approximately three meetings of these neighborhood councils. Everyone in these areas or

neighborhoods are members simply by the fact of their living in the neighborhood. The question was raised as to whether these people will demand unlimited and unrealistic things. They don't. In a rural area the first thing they asked was, how do we get libraries? Our rural schools do not have adequate libraries. The people must go to the urban center and pay $7.50 for a library card. They asked how they could have libraries provided like many other people have. And they are concerned about roads; one of the things that they are subjected to is poor roads. It is just a part of an entire attitude that is created by those people who have power and who are affluent. The next thing that the rural people were concerned about was home extension service. Each county has an extension home economist and similar services. But these people aren't served by this program. The people who participate in the program don't want to participate with these people because they are different. So we have to have a special program for them. What we would like to see in the future is that this special program—this program for those people that are not served now by a service which already exists—mesh with existing programs. It would require a little bit of bending on the part of these people who are the "haves"—who are the affluent, who participate, who speak out—with those people who have not, or maybe have tried, but who have become frustrated in the effort.

One of the other things that I foresee is this: that there are going to have to be institutional changes—changes in relationship in existing resources. The schools will have to open up their doors to the community. The employment representative will maybe have to come into the school. The student will have to get to know the representative from the employment service before he graduates from school, so there is some sort of continuity of service so that a young man or young woman knows someone in the employment service before he or she finds it necessary to go there. We find that those people don't go to the employment service. They don't call there, because it's strange to them and they feel very insecure. There is this breakdown. And the employment service at present does not go out.

There are so many other kinds of service. We have elderly people who are sixty-seven or sixty-eight years old and eligible for social security. They have not received their social security, the reason being that they can't read and write very well. They don't understand the forms that are sent to them. They have tried two and three times to apply for social security and have been rejected. Their application has been sent back because they haven't filled out the blanks properly

or given the proper information. And so we identify them. We identify these people who are living with an elderly brother or sister, and spreading their limited resources to the breaking point through neighborhood workers.

About three months ago we were petitioned by the urban renewal board and the city council to assist them in developing a social plan for those persons who are being relocated by urban renewal. This petition, I believe, should have taken place a long time earlier. It should have coincided with the planning that was being done about facilities and land use. But it wasn't and now we have to move toward this thing, to devise this plan. Part of the planning we find is that there are social agencies which are expected to work with the people to be relocated, but which are understaffed and overburdened. This is going to be an additional burden. I can see a need for expanding social services be it public welfare, vocational rehabilitation services, employment services, or a variety of these.

We have to become more and more concerned about low-rent housing, especially for the elderly in our community. We have a great many people, in both urban projects and spread throughout the community, who need low-rent housing where there is transportation available, where there is some availability of health care which they don't have and which they cannot afford, and we need to develop an understanding of our public servants to the needs of these people. This is the kind of understanding that we must develop to get the job done. It is a very big job.

I am working with a group of people on a housing and urban renewal task force. There are approximately 6,000 dilapidated and deteriorated houses in our county, and in one urban renewal project, there are 150 family units with housing that's deteriorated and dilapidated. If the problems that I find in that urban renewal project with 150 family units are typical of the 6,000 there may be an explosion. There are a variety of social ills. We have to understand what is the cause of this. It isn't enough to identify the manifestations of the problems, we have to understand why does this happen. How can we as a community in individual groups do something about it? Maybe housing is the problem. But what has caused us to have the kind of housing these people live in? Is it the slum lord? Is it the realtor who puts a cover on a house that is termite-infested and sells the home for $50 down and $50 a month? The family lives in the house a month, and the termites start coming out. The roof leaks. And

they have a contract that they have to live up to. These are the kind of things that happen in Iowa, in our county.

And we're going to try to do something about it. One way we are trying to do this is by making the community aware of the situation. This is difficult. This is a first step, to get our volunteers, our citizens, somewhat knowledgeable about the kind of conditions that exist in their community. We have spent four months doing this, and now we are in a position where we can think about programs. It took us approximately four months to get people relatively informed. We have special institutes, we speak to church groups, breakfast clubs, luncheon clubs, PTAs, and every other place. We are on the go all the time, talking about this. And we think this community action program is the mechanism for getting something done. It's a very flexible resource. If it is used imaginatively and creatively, we can do something about the problems that exist in our community. And I think as city officials, you can use this as a valuable instrument in building a better community.

I would like to invite you to Linn County to see our operation and to get some insight into the kinds of things that we're doing. We haven't been 100 per cent successful, but we think that we have been relatively successful. We have operated, as many communities have, without a tremendous number of guidelines. This is local prerogative; local people making decisions about a community. But they have to be informed people, people who have some understanding of what the problems are. And so at any time if you would like to visit with us to see our operation and visit our neighborhood centers and our neighborhood councils, please call.