

Use of the Delphi Method for Determining Community Growth Goals Inventory: The Nashville Experience

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ABSTRACT.—The author discusses the growth-inducing pressures on Nashville, Tennessee, describes the application of the Delphi technique to develop an inventory of the community's growth goals, and suggests that the development of a list of community goals is a necessary first step toward growth management.

GOALS AND THE CONCERN FOR THE FUTURE

HAVING A CONCEPT of the future and seeking a better tomorrow, man sets goals and then attempts to influence his environment toward attaining them. A goal is the beginning of a problem, in that a problem is an unmet goal. Without a goal, a problem does not exist.

Today the urban centers of America are faced with several unmet needs and unsolved problems. Problems of economy and ecology seem to loom larger than ever.

These problems exist in spite of the fact that an estimated 85 percent of all the scientists that have ever lived on earth are living in our day and age. These problems are in direct contradiction to the prophecy made in 1936 about life in 1960 and beyond (*Langdon-Davies 1936*):

“... food, clothing, and shelter will cost as little as air... and there will be room for all, rent free... Science has only to go a few steps farther...”

The concern for these problems is a concern for our future — and that of our children. Many cities in the U.S.A. are faced with this concern as they find a prematurely arrived future at their doorsteps.

THE SETTING IN NASHVILLE

In the United States, 75 percent of the people live on approximately 3 percent of the land — mainly in urban centers. Nashville, Tennessee, is one of these centers. The leadership of Nashville has voiced its concern for building a viable future for Nashville. They have asked themselves several questions. Do we, as a city, know what we want our future to be? Are we prepared for the future? For instance, in his 1974 state-of-metro address, former Mayor Beverly Briley exhorted Nashvillians to “believe in and strive for a future we may not see,” and announced the formation of a Nashville 2001 Citizens’ Goals Committee.

Nashville has a consolidated city-county metropolitan type of government. It came into being in 1962, bringing with it a single government with county-wide jurisdiction instead of the six city governments that existed in Davidson County before consolidation.

Nashville is the capital city of Tennessee and the economic and population center of the 13-county Mid-Cumberland Development District. With a population of 460,000, Nashville accounts for 56 percent of the region’s population. It is also the main trade center of the

Mid-Cumberland Region as well as its financial and medical services hub. It has a balanced and diversified economy of industrial and commercial development. Its tourist and entertainment traffic, based primarily on its reputation as "Music City, USA," will probably increase after release of the movie *Nashville!*

In 1973 the Academy for Contemporary Problems projected Nashville to be one of 28 urban centers where 90 percent of the American population will be centered in the year 2000. Several developments are now taking place around Nashville that do indeed portend a substantial growth in and around it. In December 1972, construction began on the Tombigbee Waterway. This massive waterway, funded by federal funds and scheduled for completion in 1981, will in effect connect Alabama, Mississippi, Tennessee, and Kentucky to the Gulf of Mexico and hence to world markets. During the last year work has begun on a 3-billion-dollar nuclear power facility for the Tennessee Valley Authority. This power plant will be located in Hartsville, just 25 miles east of Nashville. With 13 major colleges and universities, 5 major hospitals, the bulk of the country music industry, and six legs of major interstate highways, Nashville is faced with inevitable growth in the coming years.

The choice, for Nashville's decision-makers, is not between growth and no growth, but rather between disorderly growth and managed growth.

NASHVILLE'S EXPERIMENT WITH THE DELPHI TECHNIQUE

This issue of growth has been addressed by many groups and organizations in Nashville and Davidson County during the past few years. In July 1972, an Environmental Planning and Management Project was started in Nashville with a grant from the Ford Foundation (*Felling 1974*). The Project's objective was to develop a strategic environmen-

tal problem-solving capability in the local government system, while recognizing the citizens' increasing concern about not only the quantity of growth but also the quality of that growth.

Last year the Environmental Planning and Management Project attempted to develop an inventory of community goals. The objective of this experimental undertaking was to identify a series of goals as articulated by Nashville's opinion leaders. It was decided to use a modified Delphi technique to achieve this objective.

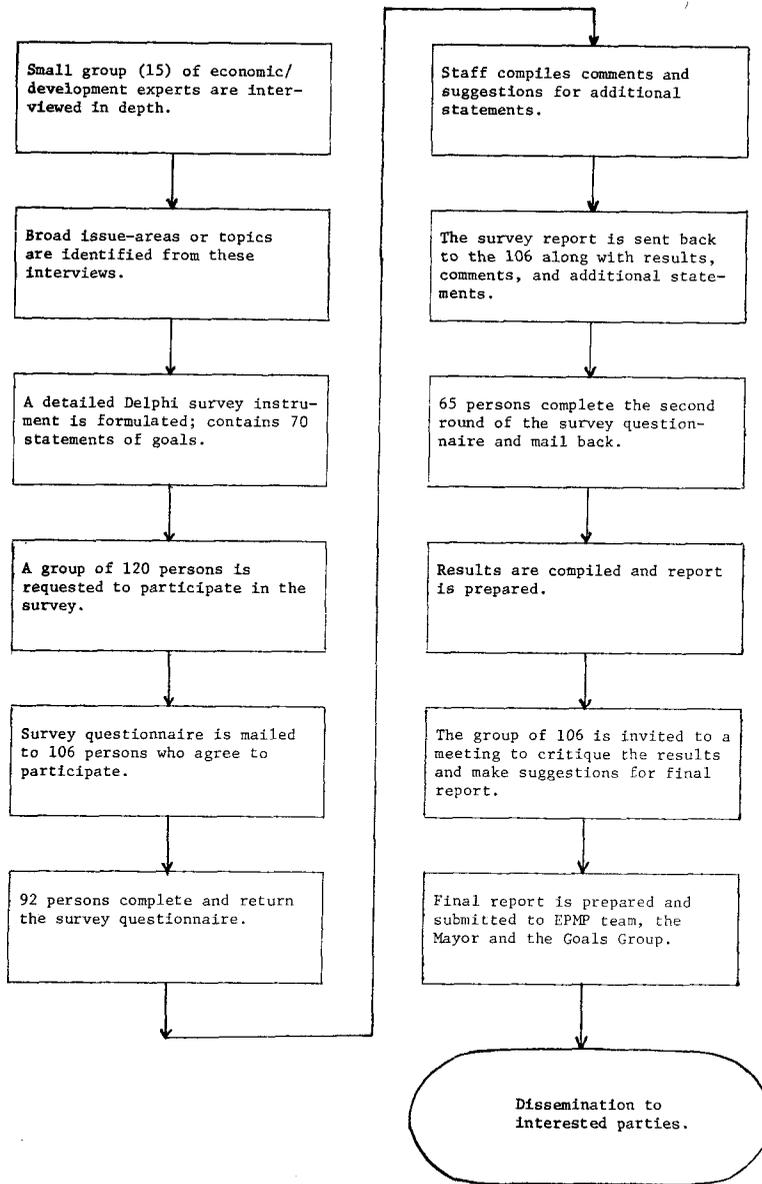
The most frequent use of the Delphi technique has been to obtain expert consensus about the likely time of occurrence of some future event. Lately, the term "Policy Delphi" has been used to describe experiments in which researchers have tried to identify policy options on general issues. The major difficulty encountered in such Delphi experiments is with the adequacy of the description of policies. A certain amount of generality or ambiguity is always inherent in these Delphi statements, and each expert's interpretations embellish it to the point that the statements are too general to be policy guides or too specific for a wide variety of experts to comment on.

In the Nashville experiment, the Delphi technique was used primarily to collect data in which the data-gatherer acts as an objective collator of the opinions of others. Specifically, the modified Delphi consisted of the following steps (fig. 1):

Step 1.—A small group of 15 developmental experts was subjected to in-depth interviews. This group included economists, developmental experts, urban planners, elected officials, bankers, engineers, and investment experts. The interviews were taped and conducted by a retired newspaper reporter who had covered city affairs for the past 35 years. Open-ended questions were used. The purpose was to surface issues and aspects around the city's future.

Step 2.—A staff team conducted an

Figure 1.—Plan and sequence of the Delphi technique used in Nashville.



analysis of transcripts from Step 1. A list of broad issues and goal-type statements was developed. A detailed list of community goals, containing 69 statements, was developed.

Step 3.—A Delphi questionnaire was developed from the list of goals. The questionnaire sought responses on (1) the level of importance of a goal state-

ment and (2) how much needs to be done to reach the goal. To obtain these two pieces of data, the respondents were asked to rate each goal on its present status and desired future status.

Step 4.—A group of 120 opinion leaders was invited to participate in this survey. The method of selection was as follows: The Mayor invited all profes-

Figure 2.—A comparative analysis of goals by ranking of differences.

COMPARATIVE ANALYSIS BY RANKING OF DIFFERENCES (D-P)	Ranking by mean of difference		PROFESSION				INCOME			LENGTH OF RESIDENCE		RACE		
	Overall	D/P	Government services	Retired and housewives	Business	Professionals	Low	Medium	High	Less than 10 years	More than 39 years	Caucasians	Blacks	
2. HOUSING	(1)	1	1	2	1	3	1	1	3	4	1	1	2	1
	D/P	3/9	5/9	3/9	3/7	5/8	3/9	3/7	6/7	5/7	5/9	1/8	5/9	1/10
5. PUBLIC EDUCATION	(9)	2	3	1	5	2	2	3	2	3	3	2	1	3
	D/P	4/7	3/7	1/10	6/8	1/6	2/7	4/6	3/10	3/6	3/7	4/9	3/8	2/4
1. ENVIRONMENT	(3)	3	6	3	3	6	6	8	1	6	2	8	4	10
	D/P	1/1	2/1	2/4	1/1	4/3	1/2	1/1	1/8	1/1	1/6	2/1	1/1	3/1
8. REGIONAL ASPECTS AND RELATIONS	(8)	4	2	4	8	1	5	2	9	2	6	4	5	7
	D/P	6/6	1/6	5/7	8/5	2/9	6/8	6/9	7/2	4/8	6/6	6/7	6/6	9/8
4. PUBLIC SAFETY	(2)	5	5	7	6	5	4	6	4	8	4	3	3	6
	D/P	5/4	6/4	6/6	4/4	3/4	5/5	5/5	5/5	7/5	4/4	5/4	4/5	6/6
3. TRANSPORTATION	(5)	6	7	9	2	8	8	4	8	1	9	6	8	5
	D/P	8/8	9/8	8/2	5/9	8/7	8/6	8/8	8/4	6/7	9/8	7/6	7/7	7/7
10. GOVERNMENT SERVICES AND CONCERNS	(4)	7	4	5	7	4	3	5	7	5	5	7	6	2
	D/P	9/10	7/10	9/10	9/10	9/10	9/10	9/10	9/10	9/10	7/10	9/10	9/10	5/9
9. ECONOMIC COMMUNITY DEVELOPMENT	(7)	8	8	8	4	9	9	7	5	7	7	5	7	8
	D/P	2/2	4/2	7/1	2/2	6/2	4/1	2/2	2/1	2/2	2/2	3/2	2/2	3/2
6. HUMAN RESOURCE DEVELOPMENT	(6)	9	9	6	9	7	7	9	6	9	8	9	9	4
	D/P	7/5	8/5	4/5	7/3	7/5	7/4	7/4	4/3	8/4	7/4	8/5	8/3	4/5
7. RECREATIONAL RESOURCES	(10)	10	10	10	10	10	10	10	10	10	10	10	10	9
	D/P	10/3	10/3	10/3	10/6	10/1	10/3	10/3	10/6	10/3	10/3	10/5	10/4	10/3

difference between desired status and present status is used as a measure of how far we've got to go to get where we want to be, even then the same three issues are on top. This time, however, the order is slightly different: housing, public safety, and environment (table 1).

A more detailed analysis was done on the basis of (1) profession, (2) income, (3) length of residence in Davidson County, and (4) race (fig. 2). For Blacks, housing and governmental services were the most important goal areas, as measured by the mean difference between present and desired status scores. By the same measure and for the same group, environment ranked tenth, while its rating by the total group was third.

In transportation, the two subgroups that attach high importance (by mean of difference between present and desired) to this are (1) businessmen and (2) relative newcomers to the community.

The main accomplishment of this experiment was the starting of a community-based process for looking at Nashville's future. It has developed an awareness for goal-setting as a basis for growth-management.

True, the survey itself was not as statistically clean as a researcher might have desired it to be. But then, it was

undertaken by practitioners, not academicians. Consequently, there are several caveats. The most important, of course, is the admonition that the dynamics of the process were more important than the output. More time could have been spent on making the statements more substantive.

The Delphi technique has tremendous value as an educational device for planners, particularly policy planners. That is its prime benefit in Nashville. It obviously obtained citizen input through a very representative group. In fact, it could be expanded to cover wider segments of population.

The technique may have more use if used on an ongoing basis. Goals should not be considered one at a time, nor should they be thought of as set for all time to come. Goals are as dynamic as the human experience. As goals are reached, visions are broadened and yet more difficult and numerous goals are set.

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