

## **Underlying patterns in a current economic development model\***

THOMAS C. DANDRIDGE & PAUL MIESING

*School of Business, State University at New York at Albany, Albany, New York 12222, U.S.A.*

**Abstract.** Public officials may subjectively use a variety of elements, including economic characteristics and political considerations, in their selection of locations and allocation of resources for economic development. Policy capture is a method that determines the impartial weighting of a broad number of elements which influence these decision makers as they operationalize programs. Non-political criteria that may influence the selection of sites for local economic development provide the basis of the analysis conducted in this paper. Public officials at various levels of responsibility assessed the chances of creating jobs for disadvantaged residents (employment success) for a variety of hypothetical areas chosen as an 'enterprise zone.' Their responses give insight into policy decisions. There is a comparison of both individual responses and groups of respondents to the hypothetical data as well as to actual zones that were recently selected. Concluding remarks will discuss these results and the application of this method for enterprise zones and other policy analyses.

Public policy is the result of a series of individual decisions made in a field consisting of both political and nonpartisan data-based variables. It is difficult to maintain consistency throughout the public decision making process because, in part, most policy issues are inherently complex. Complicating matters, personal values and biases, unique risk profiles, and professional judgments and experiences all influence decisions (Keeney, 1982). In addition, combinations of multiple variables may support different alternatives even though they conflict with each other. Moreover, each political decision maker must include the requirements of many constituencies which usually also have a vested interest in participating in the decision process (not to mention in its outcome), requiring each problem or issue to have multiple decision makers.

By better understanding their own views and comparing them to others, officials at all levels of government can review their positions, attempt to influence each other, or reconcile their differences. This is important in the development of enterprise zones, since local areas compete for, and become beneficiaries of, decisions made by the state. The state, in turn, will determine some of the local benefits based on state officials' perceptions of area or constituent needs. Both local and state officials consider what they believe is acceptable to the federal government. For federal legislation, the policy officials at HUD will be interpreting the intent of Congress through their selec-

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tion of the eventual zones. At each level, a clear picture of how decision makers operationalize the policy will improve the implementation of that policy.

Knowing which attributes decision makers consider important would enhance the ability to predict such selections or promote an area in the future. If there is little consensus among decision makers, then policy decisions will vary depending on the relative power, interests, and opinions of the actual decision makers involved. Researchers can gain insight as to which attributes public policy makers believe (or hope) determine economic success as well as compare the criteria employed by various government levels or public interest groups. The approach described in this paper would provide data on the most useful criteria.

In a real environment, political considerations may dominate and may even be the *sole* basis for selection of target areas or beneficiaries. The characteristics used in this study necessarily emphasize quantifiable features of the areas. There are complex tradeoffs among area characteristics and between them and political forces. This study explores these tradeoffs. As Hahn states, 'The nature of the tradeoffs in designing policy are not always easy to discern before a policy is implemented ... With a richer understanding of these tradeoffs, social scientists will be in a better position to explain why certain policies are related and how to design more effective policies' (1987: 302).

This study uses policy capture methodology to determine patterns of criteria active in public decision making. It asks officials to estimate how an area's characteristics might improve its employment. Judgments of a sample of New York State experts about the likelihood of employment success within enterprise zones were statistically analyzed. Brintnall and Green (1988) provide support for the appropriateness of enterprise zones as a medium of research in economic development decisions:

[The] lack of consensus about what an enterprise zone is supposed to be, or what principles and assumptions hold it together, makes the state programs that have been enacted difficult to evaluate and compare because programs similarly named may be built on quite different interpretations of the underlying concepts. Furthermore, there is the complicating factor that the states are likely to be more interested in meeting their own agendas than sustaining the purity of any particular enterprise zone concept (p. 52).

While our data collection and analysis pertain to enterprise zones, the general methodology has broader applications. Many prior efforts toward improving local employment have undergone similar decision processes to select a target area and assess the value of various incentives. The analysis determines the patterns used by each decision maker in trading off available information. This study addresses two specific questions. (1) *Where data are available, which criteria most influence a site selection decision for different policy makers?* (2) *Are there distinct homogeneous subsets of these decision criteria?*

## Overview of enterprise zones

The past few years have seen a variety of legislative proposals put forward on the federal and state levels to support area-specific economic development. Broadly termed 'enterprise zones,' these proposals require selection of specific bounded local areas to receive varying incentives to stimulate job or business development. The selection of the actual areas is a typical example of a legislative proposal that requires decisions that focus incentives on specific beneficiaries. The Housing and Community Development Act of 1987 empowered the Secretary of HUD to select up to one-hundred federal zones, of which one-third must be in rural areas. HUD will support a zone that a local and state government jointly develops and then make its selection based on applying the zones' rank order of 'distress.' The federal contribution to such zones is waiver of HUD regulations and expediting HUD programs in such zones. Current Congressional initiatives would add tax incentives to this.

In his January 27, 1988 Legislative Message to the Congress, President Reagan reiterated his intention to push for the passage of effective federal enterprise zone legislation. President Bush has continued that emphasis. Incentives would include various tax exemptions, loan pools and guarantees, and credits for human and capital investments. Competitive state proposals submitted to the U.S. Department of Housing and Urban Development (HUD) are expected to provide numerous state or local benefits. Among them are reduction in taxes or fees, improved public services, job training or technical assistance, contract preference, and sub-market sale of surplus land to neighborhood organizations. Given these opportunities and constraints, public officials must be selective as they decide which incentives to provide for new development. They must also be cautious in selecting an area to support. After all, the contemplated business's local environment will have an impact on its success. Officials inevitably have different perceptions and values about requirements for economic development success.

There are many skeptics about the success of this experiment, as there is no clear indication as to which criteria guide, economic development. A central criticism of fiscal incentives, pertinent to this study, is *there is no agreement that taxes are a principal cause of a business moving from or investing in an urban area.* (While states currently use tax incentives, to date there are no federal tax reductions.) Decision makers in small business consider lack of financing, appropriate land, access to labor markets, and urban infrastructure to be larger problems (Cox, 1985; Vesper, 1980). Perception of high crime, high costs of insurance or land assembly, or a weakened employment pool reduce the attraction an area has for both businesses and residents alike. Furthermore, quality-of-life indicators affect entrepreneurial activity in ways that vary across industries (Pennings, 1982). This complex of influences presents a real problem to the public decision maker who must determine the basis for zone selection.

Thirty-six states and the District of Columbia have passed enterprise zone

legislation. Each state tailors its version to perceived needs and unique resources. For instance, programs in California, Florida, and Pennsylvania are competitive while those in Arkansas, Kansas, and Louisiana are not. Ohio requires participating local governments to propose incentives that would expand business and employment bases as long as benefits, particularly to the residents of the community, exceed costs. Connecticut's incentives require industrial development as well as increases in employment. As Brintnall and Green (1988) conclude, 'State enterprise zones are fundamentally different from each other - in management style, program goals, etc. But these differences are not superficially apparent and may not even be recognized by the officials in the states involved' (p. 66).

This current study used empirical analysis to infer which combination of area characteristics or resources these policy makers believe are the most likely to improve employment prospects. As New York was deliberating such legislation at the time these data were collected within that state, policy makers were acquainted with the enterprise zone concept and alternative ways to increase employment. New York State passed legislation in 1986 to select up to 40 zones from areas suffering high unemployment rates. Designated zones have first preference on special state financial incentives. Officials expect the initial ten zones to create as many as 850 new jobs. Nine additional zones were being selected at the time of this writing. In New York State, the incentives include various tax credits and exemptions, reduced utility rates, authorization for special low-interest loans, and priority attention from State agencies. The study results should bring to the surface the patterns in area attributes which decision makers use along with extant political variables.

#### **Methodology to determine zone selection criteria**

It is not possible to predict accurately the success of a specific regional economic development effort. After all, disparate elements influence the multitude of entrepreneurial decisions as to where to start or expand a business. Many of the costs, market potential, labor characteristics, or capital resource elements considered by the business owner are only nominally under government control. The typical intent of enterprise zone legislation is not to influence these directly, but to reduce governmental burdens of regulations and taxes as a developmental incentive in a limited area.

This study analyzes the decisions of public officials and creates clusters of policy orientation based on the similarity of criteria they emphasized. Respondents estimated the likelihood of job creation for disadvantaged residents ('employment success' being the dependent variable) for hypothetical cases, each with a unique configuration of attributes (independent variables). Since an objective function integrates these attributes, a linear relationship of weighted variables represents a decision maker's implicit policies (Brehmer &

Brehmer, 1988). Individuals do not actually weight variables for each decision. Nonetheless, the weights derived from this technique are often more reliable and consistent than the decision maker's own judgments about the importance of separate characteristics (Bowman, 1963). We can then 'capture' the innate policy used by each official or cluster of officials in the decisions they made and measure the goodness of fit for the mathematical functions that represent these policies.

### *Study subjects*

Twenty government officials in New York State participated in the present research. These included three state Assemblymen and one aide; seven regional or county commissioners for industrial, economic, or urban development; eight city planners or managers and a city council member. This mix of officials represents different areas of a diverse state. This sample need not be large, random, or broadly representative. After all, operative policy is not a public opinion poll. Rather, it results from the coincidental assignment or availability of experts, and occasionally only one pertinent official makes the policy decision. (New York State's legislation created a seven-member board.)

The Office of the Assembly Speaker in the New York State Legislature selected and contacted the respondents. A cover letter explained the importance of the project and requested subjects to fill out an enclosed questionnaire. The respondents were also asked to specify their familiarity with the enterprise zone concept, the extent of their involvement in economic development, whether they are elected officials or career bureaucrats, and whether they are responsible for forming policy or implementing programs.

### *Area criteria*

An extensive two-year study of the impact of potential enterprise zones on the distressed areas of 25 cities (Dandridge, 1982; Dandridge, Oxendine, & Davidson, 1981) was the basis for the attributes selected to describe hypothetical areas. Extensive personal interviews with city officials, managers in major corporations, and local small business leaders identified eleven criteria for this type of business incentive program. Of course, personal and political reasons may be critically important in actual site selection. While political considerations are important, the variables included in this research design were chosen specifically to focus attention on the non-political portion of these decisions. The balance between political forces and economic attributes is the subject of other studies (e.g., Hahn, 1987). The following is a summary of the collective reasoning for inclusion of each item.

1. *Transportation Area* – Rail or truck transportation within an area or pro-

viding access to it is necessary for business operation; surface roads must aid labor and customer movement.

2. *Current Zoning and Land Use* – Zoning has the potential to be a barrier or tool because ineffective or inconsistent zoning thwarts planning and frustrate business, and residential stabilization requires clear segmentation.
3. *Current Vacancy of Property* – A high vacancy rate may reflect an unmarketable area; a low vacancy rate, although occasionally accompanied by undesirable land use, is desirable as it indicates economic vitality.
4. *Characteristic of Area Labor Potential* – Businesses see the quality of the labor force as a liability if it requires (re)training, and investors see a poor labor force as unstable and a risk to the area. City officials see a trained labor force as an asset they can promote and an untrained one as a fiscal liability.
5. *Unemployment in the Zone* – Very high unemployment is a liability as it reduces area stability and requires tremendous effort to change, while lower unemployment is an incentive to company investment in retaining workers or training new ones.
6. *City Competency and History in Economic Development* – Cities with a history of misuse or non-use of federally funded programs are detriments to real development because they lack effective management or funds acquisition, especially in a program requiring comprehensive planning and initiative.
7. *Commitment of Major Private Employers of the Entire City* – Some cities point to the commitment, leadership, and reinvestment of their major firms as an asset to all parts of the city (even in those locations not currently occupied by those companies) because such firms provide talent, property, and funds.
8. *Commitment of Business Within the Local Zone* – There can be a marked difference between the effort or commitment of major corporations in the city and the existing local small businesses currently existing within the distressed areas; collaboration among local businesses (including a merchant association) is a positive indication of activity while a lack of a merchant association bodes poorly for the area.
9. *Commitment of Residents in the Local Area* – Again, while both levels of business (city-wide and local) may be enthusiastic, an unorganized or apathetic resident population may not be supportive; for instance, prior bad treatment by local business could cause local residents to avoid both product and employment opportunities.
10. *Zone Property Ownership* – Property ownership may result in resident commitment since high property ownership by the occupants indicates higher personal stakes in area change and potentially greater momentum that reinvestments brings.
11. *Extent of Planning and Zone Development* – The care with which a city

Table 1. Attributes potentially influencing employment success of enterprise zones.

Attribute	Poor	Adequate	Good
1. Transportation area	Inadequate, needs extensive work	Suitable for current needs	Excellent distribution outside the zone
2. Current zoning and land use	Mixed use, zoning not effective or consistent	Appropriate to current use, no problems	Carefully segments industrial from residential, easy adaptation
3. Current vacancy of property	40%	20%	3%
4. Characteristic of area labor potential	Inexperienced, untrained	Experienced workers who need training	Highly qualified, experienced work force
5. Unemployment in the Zone	25%	12 to 15%	5 to 10%
6. City competency and history in economic development	CDBG funds turned back, no UDAG experience, little planning	Generally consistent	Extremely successful in attracting funds, major employers, and rebuilding the commercial base
7. Commitment of major private employers of the entire city	Very low, some leaving	Interested, supported	Active leaders in local planning and development
8. Commitment of business within the local zone	No collaboration, no merchant association	Stable business community, but little initiative	Work actively through their association for self development
9. Commitment of residents in the local zone	Isolated, apathetic	Attend meetings, seek added support from city	Work actively through neighborhood groups to improve physical and social environment themselves
10. Zone property ownership	20% of property is owner-occupied	40% of property is owner-occupied	60% of property is owner-occupied
11. Extent of planning and zone development	City would like to see any business move in	City has broad development plan and a variety of incentives are directed there	City has carefully tailored the incentives to the needs of the area and businesses they wish to attract

approaches prospective investors can influence future investment decisions and long range development, so selective promotion and a future perspective by the city are important.

#### *Analytical procedure*

Since official or personal attitudes often differ from actual behavior, many decision makers have difficulty in accurately describing their own policies. Also, the espoused policies often differ from those which eventually become operationalized. As a result, simulated decisions infer, or 'capture,' policies. The anonymity of filling out questionnaires should provide accurate representations of how respondents actually balance non-political attributes. Users of policy capture methodology recognize the difficulty people have in using someone else's cues to make decisions and the preference for determining which information is important. Nonetheless, differences between actual policies and decisions based on a 'paper format' are not critical (Brehmer & Brehmer, 1988).

The participants in this study evaluated 27 hypothetical areas which were unique combinations of the eleven area attributes. Each combination built a picture of a local area by providing a description of every attribute that fit one of three levels of desirability labelled as 'poor,' 'adequate,' or 'good.' (See table 1 for full descriptions.) Their evaluation was an estimate of the ability of each of the 27 hypothetical areas to create jobs for the disadvantaged residents. The scale ranged from 0% ('no change') to 100% ('sure thing'). This estimate of *employment success* will be the performance criterion in the remainder of this study. (The *Appendix* provides details of the design and analytic methods. That section explains policy capture methodology but does not contribute to the understanding of the case presented here.)

#### **Results and their implications for zone selection**

The mean likelihood of creating jobs for disadvantaged residents ('employment success') according to all twenty respondents across all 27 scenarios ( $n = 540$ ) is 47%. By itself this mean is difficult to interpret. It is close to the '50-50' expected point of difference which a private investor might see as too low odds to make a commitment. On the other hand, this average could represent vast improvement over the expectations of change without government intervention. Analyses of variances then tested whether respondents' estimates of employment successes differed based on the eleven area attributes. As one might expect, patterns of responses differed by judges and scenarios. There were also comparisons based on their degree of familiarity with enterprise zones, the extent of their economic planning involvement, if their

Table 2. Significant employment success criteria and characteristics of respondents (mean likelihood of employment success)

<i>Area attribute:</i>	Poor	Adequate	Good	Sig.
Transportation in zone (#1)	41.3%	48.5%	52.4%	.001
Area labor potential (#4)	40.0	52.0	53.3	.001
Competency and history (#6)	41.2	49.3	51.8	.001
Commitment of employers (#7)	41.5	49.2	51.5	.001
Commitment of business (#8)	43.6	48.2	50.4	.003
Commitment of residents (#9)	44.1	48.6	49.6	.05
Extent of development (#11)	44.7	48.1	49.5	.05

  

<i>Familiarity with concept:</i>	Expert (11 judges)	Some (8 judges)	Sig.
	45.0%	49.6%	.05

  

<i>Involvement in economic planning and policy analysis:</i>	Extensively (7 judges)	Occasionally (5 judges)	Seldomly (7 judges)	Sig.
	37.8%	51.6%	52.8%	.001

  

<i>Responsibility:</i>	Policy formation (8 judges)	Program implemen- tation (9 judges)	Sig.
	43.7%	51.6%	.001

  

<i>Formal position:</i>	'Top official' (3 judges)	'Sage' (9 judges)	'Aide' (3 judges)	'Administrator' (5 judges)	Sig.
	43.4%	43.7%	51.8%	53.8%	.001

appointment was political or career, their policy responsibility, and organization position. (See Table 2 for the significant results.)

Four attributes were statistically significant at least at the .001 level in estimating employment success. There were also significant correlations ( $p \leq .001$ ) between these attributes and employment success likelihood. Four attributes were not statistically significant at the .05 level and three were moderately important. Where differences are significant at the .001 level, a 'poor' attribute description consistently results in a mean success likelihood of less than 42% while a 'good' attribute description always results in a mean success likelihood of more than 51%.

This study shows *which* attributes public officials consider and disregard. In this way, a comprehensive albeit implicit balancing by respondents are exposed for speculation and discussion. The following reasons are speculative because the design did not determine *why* respondents considered these attributes. One use of this method to capture policy is to facilitate open discussion among officials of their actual reasons for decisions.

#### *Unimportant area attributes*

Policy makers apparently do not believe that ineffective or inconsistent *zoning and land use* frustrate business, as this attribute was hardly considered. Success estimates did increase, however, when current zone and land use were 'appropriate to current use, no problems' compared to 'mixed use, zoning not effective or consistent.' However, they did not increase noticeably when zoning and land use 'carefully segments industrial from residential, easy adaptation.' Although business research shows zoning problems may influence business location decisions, these particular officials possibly felt that careful segmentation of industrial and residential areas is unnecessary or that areas can establish new zoning, or alter existing zoning, if necessary.

Policy makers also dismiss any large advantage from either *current property vacancy* or *property owner-occupancy*. Similar to zoning, success estimates did not increase noticeably with a '20%' vacancy compared to '3%.' It is conceivable that vacancy rates provide insufficient information about the property's attraction or do not reflect economic vitality or the total space available. It is also quite possible that city officials rarely have demographics available which clearly measure property vacancy. This variable may be important to a business person but unknown to a policy maker. Hence, they may see this as desirable data but are unsure as to its use. Success estimates did not increase noticeably with a '40% owner-occupied' property ownership compared to '60% occupied.' The owner-occupied rate may not reflect personal stakes to the policy maker, or may be considered unnecessary for enterprise zone success. Incidentally, many economic development officials are unaware of the actual owner-occupancy rate in their area (Dandridge, et al., 1981).

Finally, officials are split about the effect *unemployment* has. Many believed a '25%' unemployment rate to be very favorable while others thought this was very unfavorable. Presumably, some view high unemployment as an opportunity for improvement, for business to take advantage of tax incentives, or simply a large available labor resource. Others see high unemployment as inherently undesirable, perhaps because of the assumed low skill level.

### *Important individual characteristics*

Participants had significantly different employment success estimates based on their *familiarity* with the enterprise zone concept. Of the nineteen judges specifying their extent of familiarity, eight with only some familiarity of enterprise zones gave the concept an average 50% chance of employment success. The eleven judges considering themselves to be experts on the concept had a mean of 45% for employment success. It therefore seems that experts are slightly less confident about the potential of the concept. While there is no benchmark against which to judge whether a 45% change is better than other development programs, we gain insight into the differences in judgment that results from added knowledge of the concept.

Nineteen judges also indicated if they were seldomly, occasionally, or extensively *involved* in economic development. Their success estimates were significantly different based on this classification. The seven judges seldomly involved believed that, overall, enterprise zones had a 53% chance of employment success. Those five occasionally involved had an estimate of 52%. However, the seven judges with extensive involvement, like the experts (six with extensive involvement also claimed expert familiarity), were the most pessimistic. They averaged 38% for employment success. The implications are formidable. The 'uninvolved' judges may become *critics* based on their divergent expectations. Agreement on reasonable expectations would result in better continuing cooperation.

Success estimates were significantly different between the eight respondents identifying themselves to be responsible for *policy formation* and the nine responsible for *program implementation*. Policy makers estimated a 44% chance of employment success, but administrators were more optimistic, estimating 52%. In essence, administrators may believe they can make such a program work. On the other hand, local politicians and policy makers may believe it simply is a good idea which still requires much more work. Again, communication of these expectations may expose specific reservations or bases for greater optimism, thereby improving the zone design and selection.

The final classification was *formal position*. The participants were subjectively placed into groups that characterize public positions. Labels are used to differentiate public officials and hopefully transmit an image of the complex pattern that creates power and visibility. The intent of these symbols are not to be pejorative, but derive from the following positions and responsibilities:

- *top official* held high office and power;
- *sage* had a responsible and visible position;
- *aide* had an established and varied role, but usually did not have much influence in a program; and
- *administrator* had a role as implementer of edicts from others.

These portrayals created composite success estimates which were significantly different. The three top officials' average estimate was only 43%, and the nine sages believed the zones to have a 44% chance of employment suc-

cess. The three aides averaged a 52% rating, and the five administrators had an average estimate of 54%. Hence, those with more power and visibility are progressively more pessimistic. This is consistent with the results for familiarity, involvement, and responsibility.

There are two perspectives from which to consider these comparative figures. First, there are clear patterns of differences between groups of officials. Determining such differences is central to this research and is useful to the actual policy formation process. Second, the total relative expectation level is on a scale of 0% to 100%. Policy makers can judge whether it is reasonable to go ahead with a specific program compared to other governmental initiatives or to take no action. Such judgments occur by comparing similar data on other program proposals or experiences. Thus, a success expectation of 44% may be good in comparison to expectations of other (or prior) government initiatives.

#### *Important area attributes*

Results so far have looked at responses to all attributes simultaneously. The remainder of this paper examines the responses to only those four attributes significant at the .001 level. (Table 3 presents individual rater policies for these attributes.) Seventeen of the twenty officials had multiple-correlations significant at least at the 0.5 level. The average multiple-correlation for all of these linear regressions is .50 and ranges from .11 to .84. These results suggest that while most of these public leaders held consistent views, they also conducted distinct analytic processes in determining their bases for employment success. This is identical to previous studies which found 'that although all subjects used a limited number of cues, they did not use the same ones' (Brehmer & Brehmer, 1988: 102).

There is substantial variation between officials in their use of different cues for employment success. Four attached their largest weight to *transportation* in the area, which had a .21 average. Another four believed this attribute to be completely irrelevant. The weight for the area's *labor potential* averaged .37. Eight considered this characteristic to be the most important, with six weighing it .50 or more. On the other hand, five dismissed its importance. Five favored the *city's competency and history in economic development*, which averaged a .24 weight. While one participant considered it exclusively, four completely ignored this attribute. *Employer commitment* had the smallest average weight at .18. While only two believed this to be the most important influence, it was at least considered by every participant.

This variation is interesting in its own right and is evidence of the critical importance of this type of research. After all, these individual decision makers, although considering different cues, do not operate independently. Their success in formulating and implementing policy decisions depends heavily on communication and coordination with others. Being aware that

Table 3. Relative weights for enterprise zone employment success criteria.<sup>a</sup>

Judge	Area transportation	Area labor potential	Competency and history	Commitment of employers	R <sup>2</sup> (consistency)
A	.15	.15	.48	.24	.35*
B	.16	.57	.25	.02	.49**
C	.15	.01	.60	.22	.35*
D	.00	.01	1.00	.01	.30
E	.05	.45	.00	.51	.73***
F	.70	.00	.29	.02	.83***
G	.04	.93	.01	.01	.11
H	.00	.45	.17	.40	.24
I	.63	.35	.00	.01	.53**
J	.92	.02	.01	.05	.58***
K	.03	.53	.22	.22	.35*
L	.00	.83	.00	.17	.54**
M	.23	.29	.29	.04	.50**
N	.27	.29	.29	.15	.53**
O	.16	.79	.03	.01	.55**
P	.02	.80	.00	.17	.84**
Q	.00	.24	.01	.75	.56**
R	.01	.03	.61	.37	.41*
S	.59	.34	.07	.01	.63***
T	.18	.38	.25	.18	.51**
<i>Averages:</i>	.21	.37	.24	.18	.50

<sup>a</sup> Only those attributes different at .001 level of significance.

\*  $p \leq .05$ .

\*\*  $p \leq .01$ .

\*\*\*  $p \leq .001$ .

different experts rely on different cues in their policy judgments is the first step toward improving the quality of the policy making process.

### Policy clusters

Analysis of variance and multiple regression are examples of *R* techniques that examine relations between factors. *Q* technique, by examining relations between individuals, can provide more insight into the results (Brown, 1980). A hierarchical cluster analysis of the objective weights extracted four policy groups. Discriminant analysis correctly classified all twenty participants into their respective cluster. Table 4 provides the relative weights for each cluster, the distinguishing characteristics of the judges in them, and their mean success likelihoods.

Distinct clusters emerge which represent the four attributes, with homogeneity coefficients ranging from .15 to .56 and all significant at the .001 level.

Table 4. Relative weights and characteristics for policy clusters.

	Employment-success policy clusters			
	Pessimist (1 judge)	Skeptic (4 judges)	Uncertain (11 judges)	Optimist (4 judges)
<i>Relative weights:</i>				
Transportation in zone	.00	.04	.08	.84
Area labor potential	.24	.03	.68	.06
Competency and history	.01	.72	.11	.07
Commitment of employers	.75	.19	.19	.01
R <sup>2</sup> (homogeneity)	.56***	.19***	.15***	.36***
<i>Characteristics of judges:</i>				
Seldom involved	-	A	B, E, G, K	I, S
Occasionally involved	-	R	L, N, T	F
Extensively involved	Q	C, D	H, M, O	J
Policy formation	-	A, D	B, E, G, L, M, T	-
Program implementation	-	C	H, K, N, O	F, I, J, S
'Administrators'	-	R	L, M, T	I
'Aides'	-	C	E	F
'Sages'	Q	D	G, H, K, N, O, P	J
'Top officials'	-	A	B	S
<i>Mean success likelihood:</i>	27.8%	38.2%	49.4%	56.0%

\*\*\* Significant at  $p \leq .0001$  level.

The average likelihood of success for the 'Pessimist' and 'Skeptic' clusters were significantly lower ( $p \leq .05$ ) than for the 'Uncertain' and 'Optimistic' clusters. The single 'Pessimist' was a sage with extensive involvement in economic development. This individuals considered *employer commitment* to be the most important consideration. On the whole, this official gave employment improvement due to enterprise zones only a 28% chance of success.

The four members of the 'Skeptic' cluster had a 38% average likelihood of success. While they cut across characteristics, they all considered the area's *competency and history* to be the most important. This group believes areas should have effective management and comprehensive planning (e.g., soliciting federal funds, attracting major employers, and rebuilding their commercial base) for employment success. On the other hand, a city may have the luxury of turning down government funds or turning away business if there is a sufficiently large tax base from a wealthy yet complacent population.

Over half of the participants belonged to the 'Uncertain' cluster that believes the characteristics of an area's *labor potential*, such as its quality, stability, and training, improve employment success. The eleven members were primarily the fairly visible and powerful sages responsible for originating policies. Since this group had average success expectations, the area labor potential must improve to allay the fears of these influential decision makers.

The four officials in the 'Optimist' cluster showed consideration for only the area's *transportation*. This group, which prefers an area with easy access, has the highest expectations for employment success. All of their individual results showed this same single preference with statistically significant consistency coefficients. The members were responsible for implementing policies.

#### *Actual zone selections*

For further insight into the actual decision making process, it is useful to look at the descriptions of some of the actual zones first selected in New York State. Data were available from the office selecting the zones on five of the eleven characteristics used in this study. (Table 5 shows the range for these variables over eight zones.) Each zone varied as to its position within each range. Note that the ranges generally match those in the hypothetical zones used in this study, as shown in Table 1. More important, aside from labor potential, these are *not* the variables which our respondent judges felt were important.

There are several possible explanations for this discrepancy between officials' estimates and actual decisions. First, perhaps the information our respondents thought important was not known or available to the actual decision makers. A study such as ours may guide zone applicants to gather and consider such data. Second, these different individuals may have unique

Table 5. Characteristics for eight selected enterprise zones.

Attribute:	Zone #1	Zone #2	Zone #3	Zone #4	Zone #5	Zone #6	Zone #7	Zone #8
% Commercial/industrial land use (#2)	70	63	40	69	36	60	79	73
% Current property vacancy (#3)	10	12	35	25	0	37	50	15
Characteristic of area labor potential (#4):								
% Completing high school	28	28	39	33	31	24	33	37
% Completing college	3	4	7	7	4	2	3	10
Unemployment in the zone (#5):								
% of Entire population	14.0*	8.5*	6.3*	8.9*	9.0*	9.2*	18.0	12.5*
% Male unemployment	31.1	22.1	10.1	13.6	13.5	20.4	15.8	15.3
Zone property ownership (#10):								
% Abandoned property	30	4	0	5	27	25	5	5
% Deteriorated property	60	78	28	20	40	57	3	30

\* City data used when zone data are unavailable. The number in parentheses indicates the corresponding zone attribute in Table 1.

perceptions and perspectives not considered or captured in this study. Third, the actual decision makers possibly considered political ramifications. For instance, the presence and power of neighborhood groups, demands other constituencies place on elected officials, and political bargaining with other officials are pertinent and distinctive to the actual location. At times, such demands may overpower the characteristics of selected areas.

### Conclusions

The results presented and discussed in this paper provide insight into how people involved in the public policy process weigh variables. Although further work remains, this study identifies some important perceptions of success determinants and their patterns. Respondents judged four attributes to be important in improving employment success in distressed areas. There must obviously be some care in the selection of the initial attributes, and a strong rationale must assure that all applicable scenarios are available to respondents. To examine attributes impartially rather than verify preexisting global impressions of actual cities, real names cannot substitute for area descriptions. Thus, this study at no point confronted the *real* decision which public officials make about *real* areas. It has instead sought to determine the underlying dimensions by employing hypothetical constructs that would be operative in actual situations (Miesing & Dandridge, 1986).

Government officials do not agree about the particular area attributes which are important. According to Keeney, 'Research is needed to provide methods to reduce such discrepancies when appropriate and to produce representations of the 'collective judgment' in cases where discrepancies persist' (1982: 828). This lack of consensus emphasizes the importance of policy capture methodology. Nonetheless, similarity of judgments can cluster decision makers. The cluster members' involvement in the program under consideration, role in formation or implementation of policy, and formal position described each cluster. A basic concern should arise when experts, those more involved, and those in the most powerful position have reservations about a program's success. These reservations may also apply to other programs.

The intent of this study was to show the complexity of decision processes that determine policy and to demonstrate a technique for analyzing their views. This type of analysis is valuable in enterprise zone selection and similar contexts because of its ability to make the participants aware of their current bases for decisions. It provides policy makers the opportunity to consider explicitly any selected attributes, recognize the importance they attach to these attributes in a complex array, and compare openly the basis of their decisions with the bases of others with whom they must interact to make program expectations become a reality.

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*Thomas C. Dandridge* is Associate Professor of Management and Director of the Small Business Institute in the School of Business at the State University of New York at Albany. He is also an Affiliate of the Public Policy Department in the Rockefeller Institute and of the Center for Comparative Urban and Regional Research, both at the State University of New York at Albany.

*Paul Miesing* is Associate Professor of Management in the School of Business at the State University of New York at Albany. He is also an Affiliate of the Public Policy Department in the Rockefeller Institute and of the Center for Comparative Urban and Regional Research, both at the State University of New York at Albany.

## Appendix: policy capture methodology

Traditional empirical research methods applied to historical data examine *existing policies*. However, conflict can arise in debating the merits of *proposed policies* because individual decision makers perceive their environments differently. These decision makers may apply different criteria or weigh the same criteria in unique ways. We can improve important multi-person public processes with techniques that make characteristics of each decision maker more visible and available for comparison. Since individuals combine and weigh pieces of information differently, it would be valuable to determine and make visible the pattern and relative influence that the myriad of attributes have on each decision maker.

*Policy capture* is a valuable method used to assess the bases of public policy (Brehmer & Joyce, 1988). Derived from the 'Lens Model Equation,' policy capture tries to calculate the accuracy of judgments for actual situations and the agreement between individual judgments. To achieve accuracy and agreement, 'we need general knowledge about ... the number of cues people are able to use, the kinds of integration rules they will employ, their consistency, and their ability to communicate what they know about the task and how they make their judgments' (Brehmer & Brehmer, 1988: 76). The procedure therefore requires the identification of suitable cues and the estimation of the relations between these cues and a judgment criterion.

In this particular study, an orthogonal design provided zero-order intercorrelations among the three levels for each possible pair of the eleven criteria. This procedure avoids multicollinearity without the use of a full factorial design and simplifies the interpretation of the analyses. Of course, not all the combinations of these independent variables may represent actual situations faced by the decision maker. Similarly, there is no presentation of all possible situations. The purpose is to measure trade-offs between the eleven criteria identified as being important. To do so, the respondents estimated the ability of each of the 27 hypothetical areas to create jobs for the disadvantaged residents on a scale of 0% ('no chance') to 100% ('sure thing'). The analysis used the absolute raw values of these task criteria to preserve the relative optimism or pessimism of each respondent and retain the full range of the judgment scale.

There are two ways to reduce the data matrix of eleven attributes and twenty respondents (Brunner, Fitch, Grassia, Kathlene, & Hammond, 1987). The *variablewise* method estimates population parameters and generalities *across subject* by using conventional descriptive and summary statistical techniques. The simpler method of the two, this approach has weaker statistical tests by assuming individuals are identical on the parameters of interest. The *case-wise*

method summarizes results for each respondent *across objects*. This approach uses more complex techniques that require parameter estimation and model-fitting. However, stronger statistical tests are possible that explain individual differences.

The policy is the pattern of importance a rater or group of raters attaches to every cue. These unique patterns of *relative weights* are calculated as the percentage of variance accounted for by a given dimension as follows:

$$RW = \frac{(\text{Beta}) \times (r)}{R^2},$$

where beta is the *beta weight* for the variable in the equation and r is the *zero-order (validity) coefficient* between the variable and the task criterion. The two are equal when there are zero-order intercorrelations among them.  $R^2$  is the *squared multiple-correlation coefficient (consistency)* for the entire equation. A low  $R^2$  may be due to judgmental inconsistency or such model specification errors as variables selected, erroneously assuming a linear and additive relationship, or simultaneous rather than independent weighing. Since the optimal combination is unknown, the relative weights are also the tradeoffs made by decision makers. Without a correct answer, these weights represent values or risks that combine to form a utility function for each judge. In this study, the utility is the expected likelihood of employment success.

Analysis of variance and multiple regression are 'the two most common methods of analysis' in policy capture (Brehmer & Brehmer: 77). The combining step is to cluster all individual decision makers based on the similarity of their relative weights. The raw estimates of employment success are unreliable if judges are inconsistent. For instance, low multiple correlations would indicate little agreement even if the judges might agree in principle but apply it inconsistently. Therefore, the objective weights were the basis for the clustering. Composite policies were then derived by conducting regression analysis and computing relative weights for each cluster. An  $R^2$  for each cluster is the degree of homogeneity in judgments among the cluster members. Finally, the characteristics of individual members provided greater interpretation of the clusters.

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