

DOCUMENT RESUME

ED 103 047

JC 750 192

AUTHOR Landini, Albert J.
TITLE Population Characteristics of Potential Satellite
Campus Students.
PUB DATE Mar 75
NOTE 64p.
EDRS PRICE MF-\$0.76 HC-\$3.32 PLUS POSTAGE
DESCRIPTORS Data Bases; Demography; Educational Facilities;
Educational Planning; *Facility Planning; Geographic
Location; Information Systems; *Junior Colleges;
Maps; *Off Campus Facilities; *Site Selection;
*Student Characteristics; Urban Areas
IDENTIFIERS California; Delphi Technique; DIME; *Dual Independent
Map Encoding; Pierce College

ABSTRACT

This document presents a method of determining the best location for a potential satellite campus by predetermining the population characteristics of its potential students. The question is approached as a marketing problem with a geographical orientation. The test site for this project was Pierce College in the Los Angeles Community College District. The researcher chose to employ a geographically based information system with nationwide availability: the GBF/DIME technology developed by the U. S. Census Bureau. The foundation of this system is a computerized map of the urban area under consideration, referred to as a DIME file (Dual Independent Map Encoding), the technique by which this basic file is created. A Delphi technique was used to question 15 Pierce College policymakers about the importance of each student characteristic variable. They were asked to list as many population characteristics as they could to describe the student groups to be served by the new educational facility. Tabulated responses and a copy of the author's first report were then sent to each participant for review and further suggestions. After two iterations of the administration of the instrument, a substantial amount of convergence as to item importance was evidenced. (DC)

ED103047

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRO-
DUCED EXACTLY AS RECEIVED FROM
THE PERSON OR ORGANIZATION ORIGIN-
ATING IT. POINTS OF VIEW OR OPINIONS
STATED DO NOT NECESSARILY REPRE-
SENT OFFICIAL NATIONAL INSTITUTE OF
EDUCATION POSITION OR POLICY

BEST COPY AVAILABLE

**POPULATION CHARACTERISTICS
OF
POTENTIAL SATELLITE CAMPUS STUDENTS**

by

**Albert J. Landini
Educational Researcher**

March 1975

JC 750 192

POPULATION CHARACTERISTICS
OF
POTENTIAL SATELLITE CAMPUS STUDENTS

It was the purpose of this research effort to partially document one application of a geographically based information system as applied to community college educational planning and evaluation. The test site for this project was Pierce College, one of eight colleges in the Los Angeles Community College District. Specifically this paper is an analysis of Delphi investigation results to determine population characteristics of potential satellite campus students residing within the Pierce College service area. The methodology presented here to determine those characteristics was designed with the hope that it would have universal application to other community colleges also seeking to establish satellite campus programs.

INTRODUCTION

Community college educators are facing a host of new problems. The public is demanding a wider variety of educational and community services, better and more effective educational delivery systems, and a greater voice in planning and evaluating educational products. At the same time tax and other revenue bases are falling behind escalating costs leaving tighter budgets, higher unit costs, and increasing workloads per employee. In these situations every resource somehow has to count for more.

Accelerating this need for greater service to the community is the changing nature of the two-year colleges themselves. Community colleges have historically undergone a transition from private and semi-private finishing and preparatory schools to publically funded under graduate and technical training institutions. Most recently these two year institutions have been confronted with the requirement to provide a wide variety of cultural, social and educational services to the community at large within their service areas. No universal method existed for systematically defining the needs of those communities or marketing the colleges products once the needs had been identified.

Thus, recently, more and varied residents of a community have been found to be entering a local college for a growing number of reasons. In matriculating they anticipate that their need, real or self perceived, will some how be serviced. The servicing of that need is complex. The establishment of temporary educational facilities, (often times referred to as satellite campuses, outreach centers, or colleges without walls), away from permanent college facilities has been seen as a means of servicing community needs in a cost-efficient manner.

GEOGRAPHICALLY BASED INFORMATION SYSTEMS

Educators seeking to implement a policy of establishing remote or satellite campus sites have been hampered by

inadequate data describing the basic college service area as well as that of the potential satellite location. Systematic means of using such data to actually locate and evaluate those remote sites were also needed so as to maximize the effectiveness of the remote educational facilities.

By recognizing those needs the groundwork was established for approaching the problem of locating satellite campuses as a marketing one with a geographic orientation. This was particularly true when marketing was defined as a total system of interacting activities designed to plan, price, promote, and distribute want satisfying products to present and potential customers.

The geographically based information system employed in this research activity was selected because of its nation-wide availability. It is based on GBF/DIME technology developed by the U.S. Census Bureau. The foundation of that system is a computerized map of the urban region under consideration. That computerized map is referred to as a DIME file. DIME stands for Dual Independent Map Encoding, the technique by which these basic files are created.

DIME technology allows researchers to aggregate local data to census tracts and compare this aggregated data to census data. This system as used in the Los Angeles Community College District contains internally generated student data and externally generated data from local agencies and the U.S. Census.

To use this geographically based information system successfully it was necessary to develop a means to define the population characteristics of potential satellite campus students. The technique evolved, and described here relied heavily on Delphi methodology and sought to capitalize on the expert knowledge of Pierce College policy makers. It was believed that these policy makers held considerable intuitive knowledge about their community and the Delphi process provided a means of capturing their ideas as to the nature of the population group to be served by satellite campus facilities. Those ideas, once captured, were in turn operationalized and classified as to their importance and would be ultimately used later to query a developing geographic data base for purposes of locating satellite campus sites.

DELPHI RESEARCH DESIGN

In light of the hundreds of possible data items that could be construed as meaningful indicators of possible satellite campus students, it was decided to undertake a Delphi study in an effort to determine what were the most important population characteristics to be considered in determining such campus sites. Delphi is a technique that in one form involves a panel of subject matter experts who are not convened. Usually a traditional questionnaire of some sort is developed and administered to the group.

The goal of this process is to seek group consensus regarding some set of choices. The "blind" committee is formed to minimize the impact of individual personalities on the overall group judgement. A typical Delphi exercise usually consists of two or more iterations of administering the same questionnaire. Each successive administration of the questionnaire is accompanied with appropriate statistics describing the group's previous performance. The group is then asked if they wish to modify their previous responses.

The Delphi study reported here was designed around several steps with two iterations of instrument administration. Steps one and two were concerned with clarifying conflicting concepts held at Pierce College regarding outreach programs versus satellite campuses. Characteristics for potential students of satellite campuses were then operationally defined by a second panel of experts familiar with existing geographically based population data files. The two iterations of questionnaire administration involved Pierce College policy makers in assigning importance scores to the various data items giving an indication as to their importance in identifying satellite campus sites.

METHODOLOGY

It was first necessary to obtain permission of Pierce College and the Los Angeles Community College District to conduct the research project using their service areas as

the test zone and to also involve their educational and administrative staffs in the Delphi process. After discussion with the President and Deans of Pierce College, and the District Director of Research, permission was granted to conduct the research project.

With the aid of the Pierce College Director of Research 15 educators and administrators were selected as key policy makers concerned with satellite campus locations and programs. These persons constituted the "blind" panel of experts for the Delphi exercise. Their names and titles are listed in Appendix I.

At the time the panel was formed, it was learned that two terms were used at Pierce College to indicate remote educational facilities. When various College faculty and staff were interviewed regarding the exact meaning of these terms and the difference between them, it became apparent that any distinction between the terms was not universally recognized at Pierce College.

The two terms were "satellite campuses" and "outreach centers". Thus in the first phase of this Delphi exercise it became necessary to document the differences between the two titular phrases and the project participants were directly informed that they were being asked to describe the characteristics of the populations they believed should be served by both satellite campuses and outreach centers.

Two questionnaire forms were sent to the participants. (See Appendix II). One was titled, Satellite Campus Student Population Characteristics, the other was similarly titled for Outreach Centers. The participants were asked to list as many population characteristics as they could to describe the student groups to be served by these educational facilities, and to return their responses in an enclosed self addressed stamped envelope.

After all listings of satellite and outreach student characteristics were received, they were compiled into two master lists (Appendix III). Copies of those lists were sent to project participants for their review as to completeness. If they found items missing that they considered important to them, they were asked to notify the researcher and request that those items be included in the master lists. At the same time the existing lists of characteristics were submitted to several external reviewers who had expertise in the areas of social, economic, demographic and geographic data.

Those reviewers were to suggest existing data items that could be used to operationally define the characteristics supplied by the project participants. After the expert list of operationalized student characteristics was completed, a third group, this time composed of educational researchers, reviewed it to determine its appropriateness before being returned to Pierce College.

Also, at this time, the list of characteristics prepared by the Pierce College project participants was reviewed to document the differences, in-part, between the two types of off-campus facilities. This difference is best stated by freely quoting one participant.

As was stated by that participant and substantiated by the effort:

"Most people are unfamiliar with the distinction between satellite and outreach as reflected in the students, except that they tend to view the former as a sort of mini-college sponsored by the parent institution and the latter (as) more of an extension of the parent." (emphasis added)

Further:

"The satellite is viewed largely as a single location entity while the outreach is seen as a proliferation of extant classes (and sometimes special ones for special purposes) to locations far enough from the parent institution so that time and/or distance become a significant limiting factor."

Also:

"The characteristics cited for the student population at both satellite and outreach are remarkably similar and frequently, within each list, contradictory. In other words, students of disparate profiles are placed within each of the two programs."

Nonetheless, it was judged, that characteristics sufficiently differed in the two lists to allow outreach to be considered to be catering to a potential student group

that is somewhat different from that of satellite and having different educational needs. Thus as the title of this paper implies, further activity dealt only with locating sites for satellite campuses so as to maximize their effectiveness in serving the population initially described.

Following this, the list of characteristics submitted to expert reviewers for their suggested existing data items that could be used to operationally define potential satellite campus students, was returned. Their suggested data items were all associated with place of residence and were aggregated to the neighborhood (census tract) level.

That list of data items (Appendix IV), was in turn submitted to the project participants who were asked to review it and select from it those data items that they believed best described potential satellite campus students. They were told that the ultimate project goal was to find locales within the Pierce College service area in which the greatest concentrations of those types of people lived, and label those places as possible satellite sites.

This Delphi panel was instructed that to select the best items from the attached list, that they carefully read each item. Following each item was a series of blanks with values ranging from one to ten. They were to check off the value they wished to give any one data item. A check in blank one would indicate that item was a poor one to consider

in locating a satellite campus; while a check in blank ten would indicate that item was an important one to consider.

Those ranked lists of items were returned and from them a brief report titled, Report On First Iteration Delphi Study: Satellite Campus Site Selection Research Project, was prepared (Appendix V). Upon inspecting this report it can be seen that it is very similar to the list of data items shown in Appendix IV, but with three pieces of additional information added.

The three bits of information are: (1) the number of persons rating each item shown under the column labeled N; (2) the number of persons scoring each data item a particular value shown by the . . . marks -- (it was felt that this technique also gave a good graphic view of the variance associated with the scores for each item); and (3) the median or middle score for each data item.

Thus the first data item "1.1 -- All males aged 0-19", shown on page one of the Report can be seen to have had ten persons ranking it; four gave it a score of 1, one gave it a score of 2, two gave it a score of 3, one gave it a score of 4, and two gave it a score of 5. This resulted in a median score of 2.5 for the data item, and placed it in the poor descriptor category.

That Report along with a second copy of the original list of data items was returned to the project participants. They

were asked to review the Report to see how their fellow project participants rated each of the data items. After reviewing the Report to see how their fellow project participants rated each of the data items, they were asked to please re-rank the data items on the new list, and to feel free to rank the items differently than they had the first time. Similar instructions were given for ranking this second data list as had been given in the first iteration.

This second series of ranked lists of items were also returned. They in turn were used to compile a second brief report titled, Report On Second Iteration Delphi Study: Satellite Campus Site Selection Research Project (Appendix VI). This second report was not returned to the project participants. It is interesting to note that after two iterations of administration of this instrument, a substantial amount of convergence as to item importance was evidenced, as well as the desire among Pierce College staff for hard data to incorporate into policy planning activities. Following the second iteration there was also strong evidence of "questionnaire fatigue" among the project participants.

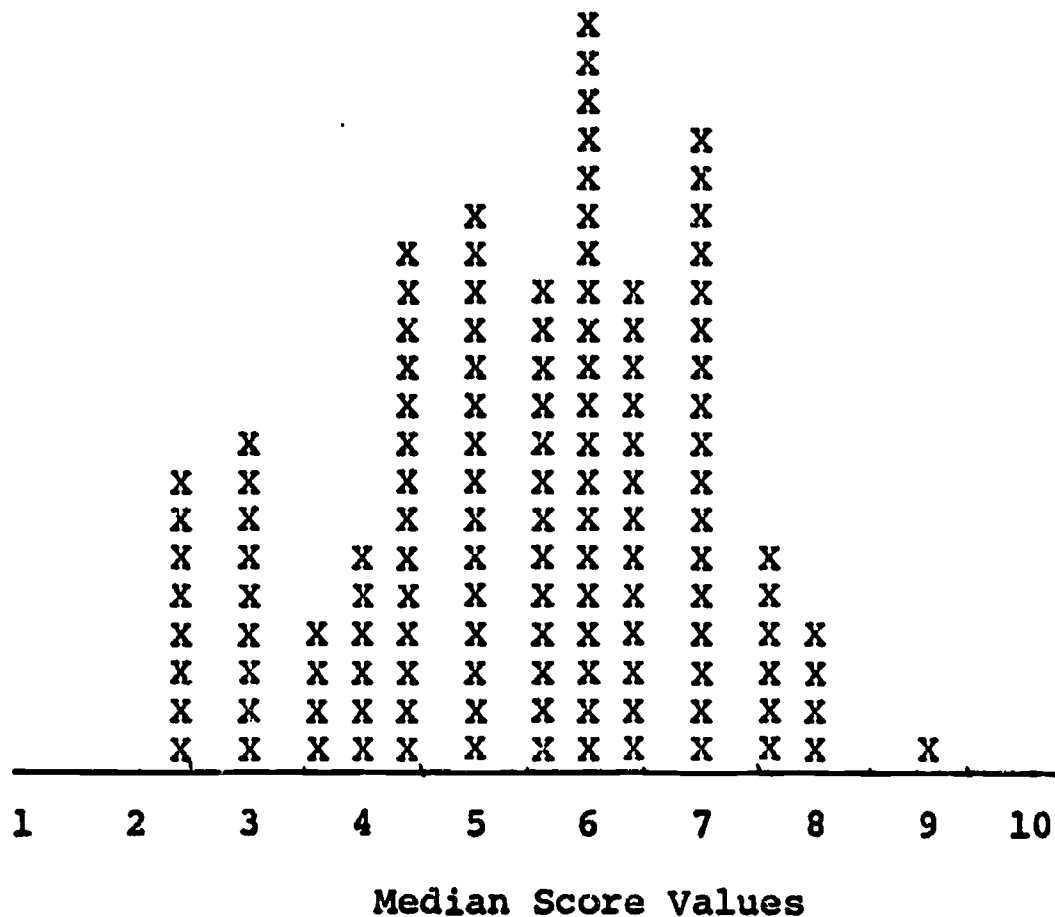
ANALYSIS

Using the data shown in the reports of the first and second iterations (Appendices V and VI), several figures, tables and statistical appendices were created to demonstrate the panel's reaction to the usefulness of the various data items for describing potential satellite campus students.

Figures 1. and 2. are a distribution of median scores given in the first and second iterations of the ranking of data items. In both of those figures there are 130 data points, one for each item. The data value plotted was that of the median score given each item by the Delphi panel.

FIGURE 1.

Distribution of First Iteration Median Scores

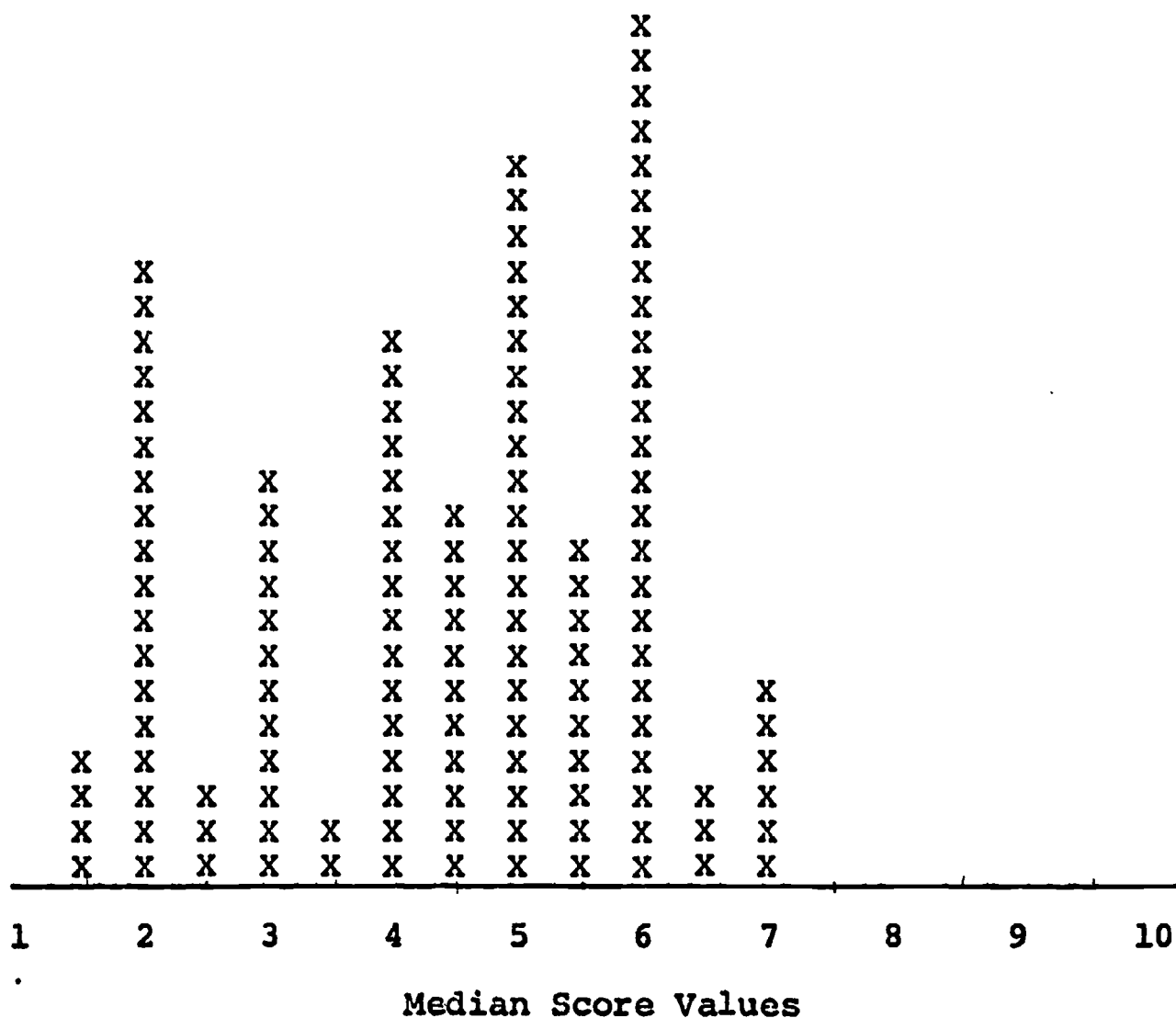


In Figure 1., the median of median values is 5.5. This figure illustrates that on the first iteration the panel found 21 data items that were poor descriptors of potential satellite campus students.

Figure 2., when compared to Figure 1., gives an indication of the panel's increased ability to discriminate between data items as to their relative importance.

FIGURE 1.

Distribution of Second Iteration Median Scores



The median for median values in the second iteration shifted from 5.5 to 5.0 and the number of items rejected for further consideration in the location of satellite campuses increased from 21 to 39. This possibly can be attributed to the group gaining greater confidence in their ability to prejudice

likely candidates for attendance at satellite campuses.

To further explore this shift in median values at the individual item level, Table 1. was constructed. This table lists all 130 data items and the panel given median score for the first (M_1) and second (M_2) iteration for each item. All but seven items showed a decrease in their median score value between the first and second iteration.

So far we have only demonstrated the directional shift of the Delphi panel importance scores as they related to the entire list of data items as well as to individual items. No attempt has been made to demonstrate the strength of agreement between the panel members as to the importance score they assigned to each data item, or to the amount of convergence experienced by the group between the first and second iteration in assigning their final importance scores.

To illustrate this strength of agreement and degree of convergence, means and standard deviations were computed from the scores given each item by each panel member for both the first and second iteration. That was done by first converting the raw data to a computer readable format and submitting it to be run with the BIO-MED Statistical Package program BMD-01D. The output using first and second iteration data are shown in Appendices VII and VIII.

TABLE 1.

Comparison Listing of Median Scores from First (M₁) and Second (M₂) Iterations for Each Item

ITEM	M ₁	M ₂	ITEM	M ₁	M ₂	ITEM	M ₁	M ₂	ITEM	M ₁	M ₂	ITEM	M ₁	M ₂
1	2.5	2.0	27	5.0	4.0	53	6.5	7.0	79	6.5	6.0	105	6.5	5.0
2	5.5	4.0	28	6.0	5.0	54	6.5	6.0	80	7.0	6.0	106	9.0	7.0
3	6.0	5.0	29	6.0	4.5	55	5.0	5.0	81	7.5	5.0	107	6.0	5.0
4	6.5	5.5	30	5.5	4.0	56	4.5	4.0	82	6.5	5.0	108	6.0	4.5
5	7.0	5.5	31	4.5	3.0	57	5.5	4.5	83	7.0	5.0	109	6.5	4.5
6	2.5	2.0	32	8.0	6.0	58	5.5	5.0	84	4.5	4.0	110	6.0	4.5
7	6.0	5.0	33	6.5	6.0	59	6.0	5.0	85	4.5	3.5	111	5.0	3.0
8	7.0	6.0	34	3.0	3.0	60	6.5	3.5	86	3.5	3.0	112	6.0	3.0
9	7.0	6.5	35	5.0	4.0	61	6.5	4.0	87	6.0	6.0	113	3.0	3.0
10	7.0	5.5	36	7.0	6.0	62	5.5	6.0	88	5.0	5.5	114	3.0	3.0
11	2.5	1.5	37	7.0	6.0	63	6.5	6.0	89	6.0	3.0	115	3.0	4.0
12	5.0	4.5	38	6.0	6.0	64	5.5	4.5	90	7.5	5.5	116	3.0	4.0
13	6.0	5.5	39	6.0	5.5	65	6.5	4.5	91	6.0	4.0	117	2.5	2.0
14	6.0	6.0	40	4.5	3.0	66	6.0	5.0	92	4.0	3.0	118	4.0	2.0
15	5.5	6.0	41	6.0	4.5	67	8.0	6.0	93	5.5	4.0	119	4.5	2.0
16	2.5	2.0	42	4.5	4.0	68	4.5	2.5	94	7.0	7.0	120	4.5	2.0
17	5.5	5.0	43	5.5	5.0	69	4.5	3.0	95	7.5	6.0	121	4.0	2.0
18	7.0	6.0	44	4.5	4.0	70	5.0	4.0	96	3.0	2.0	122	4.0	2.0
19	7.0	7.0	45	5.5	5.0	71	5.5	4.0	97	5.0	4.5	123	4.0	2.5
20	6.0	5.5	46	5.0	5.0	72	7.0	6.0	98	7.0	6.0	124	3.0	2.0
21	2.5	1.5	47	5.0	6.0	73	7.0	6.0	99	8.0	6.0	125	4.5	2.0
22	4.5	4.0	48	7.0	6.0	74	5.0	5.5	100	8.0	6.5	126	4.0	2.0
23	5.0	5.0	49	6.5	5.0	75	5.0	5.5	101	5.0	2.5	127	3.5	2.0
24	5.0	4.0	50	7.0	5.0	76	2.5	1.5	102	6.0	5.0	128	3.5	2.0
25	5.0	4.0	51	7.5	6.0	77	3.0	2.0	103	7.5	6.5	129	4.5	2.0
26	2.5	1.5	52	7.0	7.0	78	3.5	3.0	104	7.5	7.0	130	3.0	2.0

12

Appendix VII (Item Analysis First Iteration Delphi Study), shows the variable number for each of the 130 items (which corresponds to the variable numbers shown in Appendices IV, V, and VI), the arithmetic mean or average, the standard deviation, the standard error of the mean, the sample (number of panel participants ranking that item), the maximum value given that data item by any participant, the minimum value given, and the range between the maximum and minimum values. Appendix VIII is a similar report for the second iteration.

By reviewing the range and standard deviation for any item shown in Appendix VIII the reader can gain some measure as to the strength of agreement between the Delphi panel participants as to the importance of a data item. That relative importance is of course shown here as the mean, however that value was not used for final selection of items for advancement to inclusion in the planning data base.

To see the degree of convergence between panel members from the first to the second iteration on any one item, the reader will need to refer to Appendix VII and Appendix VIII for the item under consideration. To see this convergence, the reader should address himself to the item's mean and standard deviation in each appendix. Shift in group ranking of an item's importance can be seen by comparing mean-first iteration to mean-second iteration. Group convergence is illustrated by comparing standard deviation-first iteration

to standard deviation-second iteration. Greater group convergence is shown by second iteration standard deviations being substantially smaller than those shown for the same item in the first iteration.

SUMMARY

A means to define the characteristics of potential satellite campus students has been described. The procedure used to define those characteristics was constrained in that it was limited to the expert opinion of Pierce College policy makers and to operationally defining those characteristics in terms of already existing geographically based data items. The technique used relied heavily on Delphi technology.

CONCLUSIONS

The study reported here successfully defined the nature of satellite campuses versus outreach centers, both in terms of institutional philosophies and perceived potential client groups. Pierce College policy makers were exposed to a planning and management tool that has potential for expanding their decision making activity within already crowded schedules. They were also made aware of the vast array of existing data available to them (the 130 items shown here are only representative of the total data available) to be used in other geographically oriented decision activities beyond the locating of satellite campus sites. Finally a means of discriminating between these data items as to their relative importance was introduced.

CONTINUING WORK

All items (39) in Appendix VI having a median score of 3.5 or less will not be considered further in the action of locating satellite campus sites for Pierce College. What remains now is to spatially define the Pierce College service area in terms of the seven other colleges in the Los Angeles Community College District.

The definition of this service area will rely heavily on DIME file technology and policy review of Pierce College policy makers. Once defined data will be gathered for all the chosen items from this study for all census tracts in the service area (estimated to be approximately 115 census tracts). That data will be treated statistically involving the relative weight obtained thus far for each item. Subsequent analysis will reveal those census tracts with the greatest number of potential satellite campus students residing within them and their adjacent service areas.

Field work will be initiated to determine if appropriate lease facilities are or will be available in the candidate census tracts for potential satellite campuses. Lastly policy makers will review each of the selected census tracts for political acceptability using a unique decision algorithm to be developed as part of this project, and enrollments projected for each of the candidate sites.

APPENDIX I

**List of Delphi Panel Participants
Names and Titles**

Mr. E.J. Liston
College President

Mr. Jack Fujimoto
Dean of Instruction

Mr. R. Gearing
Dean of Students

Mr. J.W. Morosi
Dean of Ed. Services

Mr. Evan Maas
Dean Admin. & Guid.

Mr. Robert Case
Asst. Dean

Ms. Stelle Feuers
Asst. Dean

Mr. Walter Hadel
Asst. Dean

Mr. H.E. Lewis
Asst. Dean

Mr. Wm. E. Norlund
Asst Dean

Mr. D. Lee Ross
Asst Dean

Ms. A.G. Davis
Dir. Of Research

Dr. Ron Farrar
Chrmn. Innova. Comm

Ms. Connie Silver
Career Counselor

Mr. H. Van Noy
Pres. Acad. Senate

APPENDIX II

Initial Forms Sent to Delphi Panel Participants

SATELLITE CAMPUS SITE SELECTION
RESEARCH PROJECT

APPENDIX I.
Satellite Campus Student Population Characteristics

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.
- 11.
- 12.
- 13.
- 14.
- 15..

SATELLITE CAMPUS SITE SELECTION
RESEARCH PROJECT

APPENDIX II.
Outreach Centers Student Population Characteristics

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.
- 11.
- 12.
- 13.
- 14.
- 15.

APPENDIX III

Identified Student Population Characteristics

SATELLITE CAMPUS SITE SELECTION
RESEARCH PROJECT

APPENDIX I

Identified Satellite Campus Student Population Characteristics

1. Students cannot get transportation to main campus.
2. Students are mature and have local responsibilities such as household management or employment which prevent their taking time to travel.
3. Students are young working people who cannot afford to leave work for a full campus schedule as found on the parent campus.
4. Students wish to engage in continuing education after having it interrupted or completed (i.e., post-degree study to keep life interesting).
5. Students need remedial or required courses to enable them to continue their education subsequently.
6. Students are of middle or upper-middle socio economic level.
7. Students are of lower socio-economic level.
8. Students may take a variety of courses such as they might be offered at the parent institution but without the travel necessary.
9. Students are timid about going directly into the main institution until they have proven their capabilities to themselves.
10. Some students feel more at home in a smaller and more personal academic atmosphere.
11. Students from special ethnic or disadvantaged areas can be served with greater efficiency and less disruption of culture and life.
12. Students who might otherwise not go to school are given the opportunity to do so.
13. There is an implication that these students will eventually come to the parent institution if (a) they are "motivated" enough and (b) they cannot get what they want in any other way. At the same time, there is a slight fear that if they cannot get what they want via satellite or outreach, they may not go any further at all; an obvious contradiction. Note that conditions (a) and (b) were stated more strongly as being the case for the satellite campuses than for the outreach.

Identified Satellite Campus Student Population Characteristics

14. Ability to travel limited.
15. Constrained as to time available.
16. Previously shielded from educational opportunity.
17. Often limited cultural background -- cultural or financial (economy).
18. Older age group.
19. Not recently in school.
20. Frequently housewives.
21. Female -- usually not employed (Housewife)
22. Ambitious -- good to high aspiration level.
23. Recent change of life -- children grown, divorce, moved, unemployed.
24. Adolescent education interrupted.
25. Definite time slots available.
26. Inclined to "self-fulfillment".
27. Segment of population institutionalized -- apartments, hospitals, old folks home, factories.
28. This population would be as varied as the community in which the satellite is located in is.
29. Older female (25+).
30. All over 21 with 12 yr. - 14 yr. of education.
31. Higher income level \$15,000+.
32. Live within 5 miles of the satellite, over 5 miles from campus.
33. Be eligible to attend a community college, by age and residence.
34. Be students who by reason of academic skills (or lack of them), years away from college or school, personal constraints of time -- housewives, businessman, are more likely to attend and successfully complete satellite campus classes than on campus classes.

Identified Satellite Campus Student Population Characteristics

35. Live in areas isolated from educational institutions.
36. Possibly able to be away from home a short time.
37. More comfortable in small campus setting.
38. Probably more mature (chronologically).
39. Been away from formal education for many years.
40. Interested in developing a new career.
41. Personal enrichment.

SATELLITE CAMPUS SITE SELECTION
RESEARCH PROJECT

APPENDIX II

Identified Outreach Centers Student Population Characteristics

1. Students may take courses which are otherwise unavailable to them, through released time at work, and especially those courses which are directly relevant to the work they are doing or would like to do; concomitantly, the courses may be given at a certain place because of the facilities at that place (i.e. Spanish for nurses, given in a hospital).
2. Students may take classes of a special nature which a group of them desire. (Example: the Italian club in the outreach area wishing a special class in conversational Italian.)
3. Students tend to be more interest-oriented than degree-oriented. School becomes a social or hobby type of activity and while learning is desired, the lack of formal achievement as measured by grades is significantly less traumatic. Credit for given courses is largely irrelevant.
4. Students cannot get transportation to the main campus.
5. Students are mature and have local responsibilities such as household management or employment which prevent their taking time to travel.
6. Students are young working people who cannot afford to leave work for a full campus schedule as found on the parent campus.
7. Students wish to engage in continuing education after having it interrupted or completed (i.e., post-degree study to keep life interesting).
8. Students need remedial or required courses to enable them to continue their education subsequently.
9. Students are of middle or upper-middle socio-economic level.
10. Students are of lower socio-economic level.
11. Students are timid about going directly into the main institution until they have proven their capabilities to themselves.
12. Students who might otherwise not go to school are given the opportunity to do so.

Identified Outreach Centers Student Population Characteristics

13. There is an implication that these students will eventually come to the parent institution if (a) they are "motivated" enough and (b) they cannot get what they want in any other way. At the same time, there is a slight fear that if they cannot get what they want via satellite or outreach, they may not go any further at all; an obvious contradiction. Note that conditions (a) and (b) were stated more strongly as being the case for the satellite campuses than for the outreach.
14. Ability to travel limited.
15. Constrained as to time available.
16. Previously shielded from educational opportunity.
17. Often limited cultural or financial (economic) background.
18. Older age group.
19. Not recently in school.
20. Frequently housewives.
21. Female -- usually not employed (Housewife).
22. Ambitious -- good to high aspirational level.
23. Recent change of life -- children grown, divorced, moved, unemployed.
24. Adolescent education was interrupted.
25. Definite time slots available.
26. Inclined to "self fulfillment".
27. Segment of population -- institutionalized -- hospital, apartments, old folks homes, factories.
28. May share a common occupation -- eg. nurses.
29. May share a common place of employment -- e.g. Hughes.
30. May share a common residence -- e.g. apartment complex.
31. May be a distance from campus -- e.g. Granada Hills.
32. May be immobilized -- e.g. hospital patient - V.A.

Identified Outreach Centers Student Population Characteristics

33. May be a common age group -- e.g. H.S. students, elderly.
34. May share a common interest -- e.g. art.
35. These are usually based in a specific location such as a hospital or school.
36. Live closer to outreach center than campus.
37. Be motivated to attend classes for self-interest and personal enrichment, as much as for academic transfer credit or degree requirements.
38. Be involved in some personal activity such as homemaking or career which makes it impossible to attend regular campus classes.
39. Needs classes brought to them.
40. Special interest classes for job improvement.
41. More mature.
42. May live some distance from main campus.

APPENDIX IV

**List of Operationally Stated Student
Population Characteristics**

SATELLITE CAMPUS SITE SELECTION RESEARCH PROJECT

A Possible List of Existing Data Items to be Used in Describing Potential Satellite Students.

Poor Descriptor 2 3 4 5 6 7 8 9 10
 Excelect Descriptor

BEST COPY AVAILABLE

1.0 POPULATION

001.....1.1	All males aged 0-19	—	—	—	—	—	—	—	—	—
002.....1.2	All males aged 20-29	—	—	—	—	—	—	—	—	—
003.....1.3	All males aged 30-44	—	—	—	—	—	—	—	—	—
004.....1.4	All males aged 45-59	—	—	—	—	—	—	—	—	—
005.....1.4	All males aged 60+	—	—	—	—	—	—	—	—	—
006.....1.5	All females aged 0-19	—	—	—	—	—	—	—	—	—
007.....1.6	All females aged 20-29	—	—	—	—	—	—	—	—	—
008.....1.7	All females aged 30-44	—	—	—	—	—	—	—	—	—
009.....1.8	All females aged 45-59	—	—	—	—	—	—	—	—	—
010.....1.9	All females aged 60+	—	—	—	—	—	—	—	—	—
011.....1.10	White males aged 0-19	—	—	—	—	—	—	—	—	—
012.....1.11	White males aged 20-29	—	—	—	—	—	—	—	—	—
013.....1.12	White males aged 30-44	—	—	—	—	—	—	—	—	—
014.....1.13	White males aged 45-59	—	—	—	—	—	—	—	—	—
015.....1.14	White males aged 60+	—	—	—	—	—	—	—	—	—
016.....1.15	White females aged 0-19	—	—	—	—	—	—	—	—	—
017.....1.16	White females aged 20-29	—	—	—	—	—	—	—	—	—
018.....1.17	White females aged 30-44	—	—	—	—	—	—	—	—	—
019.....1.18	White females aged 45-59	—	—	—	—	—	—	—	—	—
020.....1.19	White females aged 60+	—	—	—	—	—	—	—	—	—
021.....1.20	Black males aged 0-19	—	—	—	—	—	—	—	—	—
022.....1.21	Black males aged 20-29	—	—	—	—	—	—	—	—	—
023.....1.22	Black males aged 30-44	—	—	—	—	—	—	—	—	—
024.....1.23	Black males aged 45-59	—	—	—	—	—	—	—	—	—
025.....1.24	Black males aged 60+	—	—	—	—	—	—	—	—	—
026.....1.25	Black females aged 0-19	—	—	—	—	—	—	—	—	—
027.....1.26	Black females aged 20-29	—	—	—	—	—	—	—	—	—
028.....1.27	Black females aged 30-44	—	—	—	—	—	—	—	—	—
029.....1.28	Black females aged 45-59	—	—	—	—	—	—	—	—	—
030.....1.29	Black females aged 60+	—	—	—	—	—	—	—	—	—

SATELLITE CAMPUS SITE SELECTION RESEARCH PROJECT

A Possible List of Existing Data Items to be Used in Describing Potential Satellite Students.

	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>
	<u>Poor Descriptor</u>			<u>Good Descriptor</u>		<u>Excellent Descriptor</u>				
031.....1.30 Total Spanish American Population	—	—	—	—	—	—	—	—	—	—
032.....1.31 Latest estimated total Population	—	—	—	—	—	—	—	—	—	—
033.....1.32 Projected 1995 total Population	—	—	—	—	—	—	—	—	—	—

BEST COPY AVAILABLE

2.0 INCOME

034.....2.1 1969 Family Income \$4,999 or less	—	—	—	—	—	—	—	—	—	—
035.....2.2 1969 Family Income \$5,000 -- \$9,999	—	—	—	—	—	—	—	—	—	—
036.....2.3 1969 Family Income \$10,000 -- \$24,999	—	—	—	—	—	—	—	—	—	—
037.....2.4 1969 Family Income \$25,000 and over	—	—	—	—	—	—	—	—	—	—

3.0 EMPLOYMENT

038.....3.1 Occupation of employed population 16 years old +	—	—	—	—	—	—	—	—	—	—
038.....3.1.1 White collar	—	—	—	—	—	—	—	—	—	—
039.....3.1.2 Blue collar	—	—	—	—	—	—	—	—	—	—
040.....3.1.3 Farm workers	—	—	—	—	—	—	—	—	—	—
041.....3.1.4 Service workers	—	—	—	—	—	—	—	—	—	—
042.....3.2 Industry of employed population 16 years old +	—	—	—	—	—	—	—	—	—	—
042.....3.2.1 Construction	—	—	—	—	—	—	—	—	—	—
043.....3.2.2 Manufacturing	—	—	—	—	—	—	—	—	—	—
044.....3.2.3 Transportation	—	—	—	—	—	—	—	—	—	—
045.....3.2.4 Communications	—	—	—	—	—	—	—	—	—	—
046.....3.2.5 Wholesale Trade	—	—	—	—	—	—	—	—	—	—
047.....3.2.6 Retail Trade	—	—	—	—	—	—	—	—	—	—
048.....3.2.7 Finance, Insurance and Real Estate	—	—	—	—	—	—	—	—	—	—
049.....3.2.8 Business and Repair Services	—	—	—	—	—	—	—	—	—	—

SATELLITE CAMPUS SITE SELECTION RESEARCH PROJECT

A Possible List of Existing Data Items to be Used in Describing Potential Satellite Students.

	1	2	3	4	5	6	7	8	9	10
	Poor Descriptor			Good Descriptor			Excellent Descriptor			
050.....										
051.....										
052.....										
053.....										
054.....										
055.....										
056.....										
057.....										
058.....										
059.....										
060.....										
061.....										
062.....										
063.....										
064.....										
065.....										
066.....										
067.....										
068.....										
069.....										
070.....										
071.....										

BEST COPY AVAILABLE



SATELLITE CAMPUS SITE SELECTION RESEARCH PROJECT

A Possible List of Existing Data Items to be Used in Describing Potential Satellite Students.

	1	2	3	4	5	6	7	8	9	10
				Poor Descriptor	Good Descriptor	Potential	Excellent	Descriptor	Descriptor	Descriptor

- 072.....4.5 Males aged 25+ finished 4 yrs. hi-school _____
- 073.....4.6 Females aged 25+ finished 4 yrs. hi-school _____
- 074.....4.7 Males who finished 4 yrs. or more of college _____
- 075.....4.8 Females who finished 4 yrs. or more of college _____
- 076.....4.9 First grade reading score - 1970 _____
- 077.....4.10 Third grade reading score - 1972 _____
- 078.....4.11 Sixth grade reading score - 1970 _____

BEST COPY AVAILABLE

5.0 FAMILY

- 079.....5.1 Total number of families _____
- 080.....5.2 Total husband & wife families _____
- 081.....5.3 Total families with other than husband as male head _____
- 082.....5.4 Total families with female head of household _____
- 083.....5.5 Count of total births _____
- 084.....5.6 Average age of mother at first birth _____
- 085.....5.7 Number of births to mothers with 4+ children _____
- 086.....5.8 Number of persons in families in poverty _____

SATELLITE CAMPUS SITE SELECTION RESEARCH PROJECT

A Possible List of Existing Data Items to be Used in Describing Potential Satellite Students.

	1	2	3	4	5	6	7	8	9	10
	Poor	Descriptor	Good	Descriptor	Excellent	Descriptor	Descriptor	Descriptor	Descriptor	Descriptor

6.0 HOUSING

087.....6.1	Total	Owner	Occupied	Units	_____	_____	_____	_____	_____	_____
088.....6.2	Total	Renter	Occupied	Units	_____	_____	_____	_____	_____	_____
089.....6.3	Total	Vacant	Housing	Units	_____	_____	_____	_____	_____	_____
090.....6.4	Total	Housing	Units		_____	_____	_____	_____	_____	_____
091.....6.5	Total	Mobile	Homes		_____	_____	_____	_____	_____	_____
	Owner	specified	housing	value						
092.....6.6.1		\$9999	or less		_____	_____	_____	_____	_____	_____
093.....6.6.2		\$10,000	--	\$19,999	_____	_____	_____	_____	_____	_____
094.....6.6.3		\$20,000	--	\$34,999	_____	_____	_____	_____	_____	_____
095.....6.6.4		\$35,000	and over		_____	_____	_____	_____	_____	_____

6.7 Renter specified contract rent

096.....6.7.1		\$79	or less		_____	_____	_____	_____	_____	_____
097.....6.7.2		\$80	--	\$149	_____	_____	_____	_____	_____	_____
098.....6.7.3		\$150	--	\$199	_____	_____	_____	_____	_____	_____
099.....6.7.4		\$200	and over		_____	_____	_____	_____	_____	_____

100.....6.8 Latest estimate of total housing units _____

7.0 TRANSPORTATION

101.....7.1	Count of occupied housing units with no autos	_____	_____	_____	_____	_____	_____	_____	_____	_____
102.....7.2	Count of occupied housing units with one auto	_____	_____	_____	_____	_____	_____	_____	_____	_____
103.....7.3	Count of occupied housing units with 2+ autos	_____	_____	_____	_____	_____	_____	_____	_____	_____
104.....7.4	Transportation accessibility at place of residence	_____	_____	_____	_____	_____	_____	_____	_____	_____
105.....7.5	Number of street miles in census tract	_____	_____	_____	_____	_____	_____	_____	_____	_____
106.....7.6	Distance from home to main campus	_____	_____	_____	_____	_____	_____	_____	_____	_____



SATELLITE CAMPUS SITE SELECTION RESEARCH PROJECT

A Possible List of Existing Data Items to be Used in Describing Potential Satellite Students.

	1	2	3	4	5	6	7	8	9	10
	Poor		Descriptor	Good	Descriptor	Excellent	Descriptor			
107.....7.7	—	—	—	—	—	—	—	—	—	—
Count of Auto Transport work trips										
108.....7.8	—	—	—	—	—	—	—	—	—	—
Count of Public Transit work trips										
109.....7.9	—	—	—	—	—	—	—	—	—	—
Count of Walk or Other Transit work trips										
110.....7.10	—	—	—	—	—	—	—	—	—	—
Count of Population working at home										
BEST COPY AVAILABLE										
8.0 SOCIETAL										
111.....8.1	—	—	—	—	—	—	—	—	—	—
Count of total deaths										
112.....8.2	—	—	—	—	—	—	—	—	—	—
Count of deaths for persons aged 25-44										
113.....8.3	—	—	—	—	—	—	—	—	—	—
Count of park sites										
114.....8.4	—	—	—	—	—	—	—	—	—	—
Count of park acres										
115.....8.5	—	—	—	—	—	—	—	—	—	—
Count of suicides										
116.....8.6	—	—	—	—	—	—	—	—	—	—
Count of attempted suicides										
117.....8.7	—	—	—	—	—	—	—	—	—	—
Count of Arsons and suspected Arsons										
118.....8.8	—	—	—	—	—	—	—	—	—	—
Count of Robberies										
119.....8.9	—	—	—	—	—	—	—	—	—	—
Count of Residential Burg- laries										
120.....8.10	—	—	—	—	—	—	—	—	—	—
Dollar loss from residential burglaries										
121.....8.11	—	—	—	—	—	—	—	—	—	—
Count of Assaults										
122.....8.12	—	—	—	—	—	—	—	—	—	—
Count of Murders										
123.....8.13	—	—	—	—	—	—	—	—	—	—
Count of auto thefts										

SATELLITE CAMPUS SITE SELECTION RESEARCH PROJECT

A Possible List of Existing Data Items to be Used in Describing Potential Satellite Students.

	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>
	<u>Poor</u>	<u>Descriptor</u>	<u>Good</u>	<u>Descriptor</u>	<u>Excellent</u>	<u>Descriptor</u>	<u>Descriptor</u>	<u>Descriptor</u>	<u>Descriptor</u>	<u>Descriptor</u>
124.....8.14	Count of total arrests	_____	_____	_____	_____	_____	_____	_____	_____	_____
125.....8.15	Count of drunk arrests	_____	_____	_____	_____	_____	_____	_____	_____	_____
126.....8.16	Count of drunk driving arrests	_____	_____	_____	_____	_____	_____	_____	_____	_____
127.....8.17	Count of juvenile arrests	_____	_____	_____	_____	_____	_____	_____	_____	_____
128.....8.18	Count of juvenile delinquent arrests	_____	_____	_____	_____	_____	_____	_____	_____	_____
129.....8.19	Count of narcotic arrests	_____	_____	_____	_____	_____	_____	_____	_____	_____
130.....8.20	Count of traffic arrests	_____	_____	_____	_____	_____	_____	_____	_____	_____

BEST COPY AVAILABLE

APPENDIX IV

Report On First Iteration Delphi Study

SATELLITE CAMPUS SITE SELECTION RESEARCH PROJECT

A Possible List of Existing Data Items to be Used in Describing Potential Satellite Students.

			BEST COPY									
			1	2	3	4	5	6	7	8	9	10
			Poor Descriptor			Good Descriptor			Excellent Descriptor			
Median	1.0	POPULATION										
2.5	001	All males aged 0-19	....	.	..	.	..	.	..	.	..	.
5.5	002	All males aged 20-29	....	.	..	.	..	.	..	.	..	.
6.0	003	All males aged 30-44	....	.	..	.	..	.	..	.	..	.
6.5	004	All males aged 45-59	....	.	..	.	..	.	..	.	..	.
7.0	005	All males aged 60+	....	.	..	.	..	.	..	.	..	.
2.5	006	All females aged 0-19	....	.	..	.	..	.	..	.	..	.
6.0	007	All females aged 20-29	....	.	..	.	..	.	..	.	..	.
7.0	008	All females aged 30-44	....	.	..	.	..	.	..	.	..	.
7.0	009	All females aged 45-59	....	.	..	.	..	.	..	.	..	.
7.0	010	All females aged 60+	....	.	..	.	..	.	..	.	..	.
2.5	011	White males aged 0-19	....	.	..	.	..	.	..	.	..	.
5.0	012	White males aged 20-29	....	.	..	.	..	.	..	.	..	.
6.0	013	White males aged 30-44	....	.	..	.	..	.	..	.	..	.
6.0	014	White males aged 45-59	....	.	..	.	..	.	..	.	..	.
5.5	015	White males aged 60+	....	.	..	.	..	.	..	.	..	.
2.5	016	White females aged 0-19	....	.	..	.	..	.	..	.	..	.
5.5	017	White females aged 20-29	....	.	..	.	..	.	..	.	..	.
7.0	018	White females aged 30-44	....	.	..	.	..	.	..	.	..	.
7.0	019	White females aged 45-59	....	.	..	.	..	.	..	.	..	.
6.0	020	White females aged 60+	....	.	..	.	..	.	..	.	..	.
2.5	021	Black males aged 0-19	....	.	..	.	..	.	..	.	..	.
4.5	022	Black males aged 20-29	....	.	..	.	..	.	..	.	..	.
5.0	023	Black males aged 30-44	....	.	..	.	..	.	..	.	..	.
5.0	024	Black males aged 45-59	....	.	..	.	..	.	..	.	..	.
5.0	025	Black males aged 60+	....	.	..	.	..	.	..	.	..	.
2.5	026	Black females aged 0-19	....	.	..	.	..	.	..	.	..	.
5.0	027	Black females aged 20-29	....	.	..	.	..	.	..	.	..	.
6.0	028	Black females aged 30-44	....	.	..	.	..	.	..	.	..	.
6.0	029	Black females aged 45-59	....	.	..	.	..	.	..	.	..	.
5.5	030	Black females aged 60+	....	.	..	.	..	.	..	.	..	.

SATELLITE CAMPUS SITE SELECTION RESEARCH PROJECT

A Possible List of Existing Data Items to be Used in Describing Potential Satellite Students.

	N	1	2	3	4	5	6	7	8	9	10
4.5 031.....1.30 Total Spanish American Population	10	—	—	...	..	.	—	..	.	—	—
8.0 032.....1.31 Latest estimated total Population	10	—	—	..	—	.	—	.	...	—	...
6.5 033.....1.32 Projected 1995 total Population	10	—	—	..	..	—	—	.	..	.	—
3.0 034.....2.1 1969 Family Income \$4999 or less	10	—	..	...	.	.	—	—	—	.	—
5.0 035.....2.2 1969 Family Income \$5000 -- \$9999	10	—	.	—	.	...	—	—	..	—	—
7.0 036.....2.3 1969 Family Income \$10,000 -- \$24,999	10	—	.	—	—	..	—	...	—	..	—
7.0 037.....2.4 1969 Family Income \$25,000 and over	10	—	.	—	—	—	...	..	...	—	—

BEST COPY AVAILABLE

2.0 INCOME

3.0 EMPLOYMENT

6.0 038.....3.1.1 Occupation of employed population 16 years old + White collar	10	—	—	..	.	.	..	.	..	—	—
6.0 039.....3.1.2 Blue collar	10	—	.	—	—	...	..	..	—	—	—
4.5 040.....3.1.3 Farm workers	10	—	..	—	...	.	..	..	—	—	—
6.0 041.....3.1.4 Service workers	10	—	..	—	—	...	..	..	—	—	—
4.5 042.....3.2.1 Industry of employed population 16 years old + Construction	10	.	—	..	..	...	.	..	—	—	—
5.5 043.....3.2.2 Manufacturing	10	—	—	..	..	...	..	..	—	—	—
4.5 044.....3.2.3 Transportation	10	—	—	.	...	.	..	..	—	—	—
5.5 045.....3.2.4 Communications	10	—	—	.	...	.	..	..	—	—	—
5.0 046.....3.2.5 Wholesale Trade	10	—	—	.	...	.	..	..	—	—	—
5.0 047.....3.2.6 Retail Trade	10	—	—	.	...	.	..	..	—	—	—
7.0 048.....3.2.7 Finance, Insurance and Real Estate	10	—	—	—	—	...	..	..	..	..	..
6.5 049.....3.2.8 Business and Repair Services	10	—	—	—	—	...	..	..	..	..	..

SATELLITE CAMPUS SITE SELECTION RESEARCH PROJECT

A Possible List of Existing Data Items to be Used in Describing Potential Satellite Students.

N
 1 2 3 4 5 6 7 8 9 10
 Poor Descriptor Good Descriptor Excellent Descriptor

7.0 050.....	3.2.9	Personal Services	10																	
7.5 051.....	3.2.10	Health Services	10																	
7.0 052.....	3.2.11	Educational Service	10																	
6.5 053.....	3.2.12	Other Professional	10																	
6.5 054.....	3.2.13	Public Administrat.	10																	
5.0 055.....	3.2.14	Other Industries	10																	
4.5 056.....	3.3	Males 16+ in labor force	10																	
5.5 057.....	3.4	Females 16+ in labor force	10																	
5.5 058.....	3.5	Males 16+ employed	10																	
6.0 059.....	3.6	Females 16+ employed	10																	
6.5 060.....	3.7	Males 16+ unemployed	10																	
6.5 061.....	3.8	Females 16+ unemployed	10																	
5.5 062.....	3.9	White collar employed males	10																	
6.5 063.....	3.10	White collar employed females	10																	
5.5 064.....	3.11	Blue collar employed males	10																	
6.5 065.....	3.12	Blue collar employed females	10																	
6.0 066.....	3.13	Females 16+ in labor force	10																	
8.0 067.....	3.14	Married Husband present	10																	
		Females 16+ not in labor force (Married Husband present)	10																	
4.0 EDUCATION																				
4.5 068.....	4.1	Male high school dropout	10																	
4.5 069.....	4.2	Female high school dropout	10																	
5.0 070.....	4.3	Males aged 25+ not finish 1 yrs. high school	10																	
5.5 071.....	4.4	Females aged 25+ not finish 4 yrs. high school	10																	

SATELLITE CAMPUS SITE SELECTION RESEARCH PROJECT

A Possible List of Existing Data Items to be Used in Describing Potential Satellite Students.

Median

		Poor Descriptor										Good Descriptor										Excellent Descriptor																			
		1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10										
7.0	072																																								
		N										10																													
		Males aged 25+										finished 4 yrs. hi-school																													
7.0	073																																								
		10										Females aged 25+										finished 4 yrs. hi-school																			
5.0	074																																								
		Males who finished 4 yrs.										or more of college																													
5.0	075																																								
		10										Females who finished 4 yrs.										or more of college																			
2.5	076																																								
		10										First grade reading										score - 1970																			
3.0	077																																								
		10										Third grade reading										score - 1972																			
3.5	078																																								
		10										Sixth grade reading										score - 1970																			
BEST COPY AVAILABLE																																									
5.0 FAMILY																																									
6.5	079																																								
		10										Total number of families										10																			
7.0	080																																								
		10										Total husband & wife families										10																			
7.5	081																																								
		9										Total families with other										9																			
		than husband as male head																																							
6.5	082																																								
		9										Total families with female										9																			
		head of household																																							
7.0	083																																								
		9										Count of total births										9																			
4.5	084																																								
		9										Average age of mother										9																			
		at first birth																																							
4.5	085																																								
		9										Number of births to mothers										9																			
		with 4+ children																																							
3.5	086																																								
		10										Number of persons in families										10																			
		in poverty																																							

SATELLITE CAMPUS SITE SELECTION RESEARCH PROJECT

A Possible List of Existing Data Items to be Used in Describing Potential Satellite Students.

Median	N	Description	Poor Descriptor																	
			1	2	3	4	5	6	7	8	9	10								
3.0	10	Count of total arrests	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
4.5	10	Count of drunk arrests	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4.0	10	Count of drunk driving arrests	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3.5	10	Count of juvenile arrests	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
3.5	10	Count of juvenile delinquent arrests	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
4.5	10	Count of narcotic arrests	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
3.0	10	Count of traffic arrests	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

BEST COPY AVAILABLE

APPENDIX VI

Report On Second Iteration Delphi Study

SATELLITE CAMPUS SITE SELECTION RESEARCH PROJECT

A Possible List of Existing Data Items to be Used in Describing Potential Satellite Students.

	Poor Descriptor										Good Descriptor										Excellent Descriptor									
	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
3.0 031.....1.30	Total Spanish American Population																													
6.0 032.....1.31	Latest estimated total Population																													
6.0 033.....1.32	Projected 1995 total Population																													
BEST COPY AVAILABLE																														
3.0 034.....2.1	1969 Family Income \$4999 or less																													
4.0 035.....2.2	1969 Family Income \$5000 -- \$9999																													
6.0 036.....2.3	1969 Family Income \$10,000 -- \$24,999																													
6.0 037.....2.4	1969 Family Income \$25,000 and over																													

3.0 EMPLOYMENT

6.0 038.....3.1	Occupation of employed population 16 years old +																													
5.5 039.....3.1.1	White collar																													
3.0 040.....3.1.2	Blue collar																													
4.5 041.....3.1.3	Farm workers																													
	3.1.4 Service workers																													
4.0 042.....3.2	Industry of employed population 16 years old +																													
5.0 043.....3.2.1	Construction																													
4.0 044.....3.2.2	Manufacturing																													
5.0 045.....3.2.3	Transportation																													
5.0 046.....3.2.4	Communications																													
6.0 047.....3.2.5	Wholesale Trade																													
6.0 048.....3.2.6	Retail Trade																													
	3.2.7 Finance, Insurance and Real Estate																													
5.0 049.....3.2.8	Business and Repair Services																													

SATELLITE CAMPUS SITE SELECTION RESEARCH PROJECT

A Possible List of Existing Data Items to be Used in Describing Potential Satellite Students.

Median	N	Poor Descriptor										Good Descriptor										Excellent Descriptor																																																											
		1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10																																																		
5.0	050																				Personal Services	10																																																											
6.0	051																					Health Services	10																																																										
7.0	052																					Educational Service	10																																																										
7.0	053																					Other Professional	10																																																										
6.0	054																					Public Administrat.	10																																																										
5.0	055																					Other Industries	10																																																										
4.0	056																					Males 16+ in labor force	10																																																										
4.5	057																					Females 16+ in labor force	10																																																										
5.0	058																					Males 16+ employed	10																																																										
5.0	059																					Females 16+ employed	10																																																										
3.5	060																					Males 16+ unemployed	10																																																										
4.0	061																					Females 16+ unemployed	10																																																										
6.0	062																					White collar employed males	10																																																										
6.0	063																					White collar employed females	10																																																										
4.5	064																					Blue collar employed males	10																																																										
4.5	065																					Blue collar employed females	10																																																										
5.0	066																					Females 16+ in labor force	10																																																										
6.0	067																					Married Husband present	10																																																										
6.0	068																					Females 16+ not in labor force (Married Husband present)	10																																																										
2.5	068																					Male high school dropout	10																																																										
3.0	069																					Female high school dropout	10																																																										
4.0	070																					Males aged 25+ not finish 4 yrs. high school	10																																																										
4.0	071																					Females aged 25+ not finish 4 yrs. high school	10																																																										

4.0 EDUCATION

SATELLITE CAMPUS SITE SELECTION RESEARCH PROJECT

A Possible List of Existing Data Items to be Used in Describing Potential Satellite Students.

Median

Poor Descriptor 1 2 3 4 5 6 7 8 9 10

6.0 HOUSING

6.0	087.....	6.1	Total Owner Occupied Units	10															
5.5	088.....	6.2	Total Renter Occupied Units	10															
3.0	089.....	6.3	Total Vacant Housing Units	10															
5.5	090.....	6.4	Total Housing Units	10															
4.0	091.....	6.5	Total Mobile Homes	10															

Owner specified housing value

3.0	092.....	6.6.1	\$9999 or less	10															
4.0	093.....	6.6.2	\$10,000 -- \$19,999	10															
7.0	094.....	6.6.3	\$20,000 -- \$34,999	10															
6.0	095.....	6.6.4	\$35,000 and over	10															

6.7 Renter specified contract rent

2.0	096.....	6.7.1	\$79 or less	9															
4.5	097.....	6.7.2	\$80 -- \$149	9															
6.0	098.....	6.7.3	\$150 -- \$199	9															
6.0	099.....	6.7.4	\$200 and over	9															

6.5	100.....	6.8	Latest estimate of total housing units	9															
-----	----------	-----	--	---	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

7.0 TRANSPORTATION

2.5	101.....	7.1	Count of occupied housing units with no autos	10															
5.0	102.....	7.2	Count of occupied housing units with one auto	10															
6.5	103.....	7.3	Count of occupied housing units with 2+ autos	10															
7.0	104.....	7.4	Transportation accessibility at place of residence	10															
5.0	105.....	7.5	Number of street miles in census tract	10															
7.0	106.....	7.6	Distance from home to main campus	10															

BEST COPY AVAILABLE



SATELLITE CAMPUS SITE SELECTION RESEARCH PROJECT

A Possible List of Existing Data Items to be Used in Describing Potential Satellite Students.

Item	Poor Descriptor										Good Descriptor										Excellent Descriptor									
	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
2.0	124	Count of total arrests	10																											
2.0	125	Count of drunk arrests	10																											
2.0	126	Count of drunk driving arrests	10																											
2.0	127	Count of juvenile arrests	10																											
2.0	128	Count of juvenile delinquent arrests	10																											
2.0	129	Count of narcotic arrests	10																											
2.0	130	Count of traffic arrests	10																											

BEST COPY AVAILABLE



APPENDIX VII

Item Analysis First Iteration Delphi Study

BEST COPY AVAILABLE

PROBLEM CARD
 PROBLEM NUMBER A00002 METHOD NUMBER 1
 NUMBER OF CASES 10 NUMBER OF SPECIAL VALUES 0
 NUMBER OF VARIABLES 130 NUMBER OF TRANSGENERATIONS 0
 NUMBER OF VARIABLES ADDED 0 INPUT TAPE NUMBER 5
 NUMBER OF VARIABLE FORMAT CARDS 1

VARIABLE FORMAT CARD(S)
 (5X,37F2.0/5X,37F2.0/5X,37F2.0/5X,37F2.0/5X,37F2.0)

VAR NO	MEAN	S.D.	S.E. OF MEAN	SAMPLE	MAXIMUM	MINIMUM	RANGE
1	2.6000	1.6465	0.5207	10	5.0000	1.0000	4.0000
2	6.0000	2.3570	0.7454	10	10.0000	4.0000	6.0000
3	6.5000	1.9579	0.6191	10	10.0000	4.0000	6.0000
4	6.7000	2.1628	0.6839	10	10.0000	3.0000	7.0000
5	6.3000	1.7670	0.5588	10	9.0000	3.0000	6.0000
6	2.7000	1.7029	0.5385	10	5.0000	1.0000	4.0000
7	6.3000	2.2632	0.7157	10	10.0000	4.0000	6.0000
8	7.3000	1.6364	0.5175	10	10.0000	5.0000	5.0000
9	7.6000	1.5776	0.4989	10	10.0000	6.0000	4.0000
10	6.8000	1.3166	0.4163	10	9.0000	5.0000	4.0000
11	2.6000	1.6465	0.5207	10	5.0000	1.0000	4.0000
12	5.2000	2.3944	0.7572	10	10.0000	1.0000	9.0000
13	5.8000	2.1499	0.6799	10	9.0000	1.0000	8.0000
14	5.8000	2.3476	0.7424	10	9.0000	1.0000	8.0000
15	5.6000	2.3664	0.7483	10	9.0000	1.0000	8.0000
16	2.7000	1.7029	0.5385	10	5.0000	1.0000	4.0000
17	5.4000	2.4129	0.7630	10	10.0000	1.0000	9.0000
18	6.5000	2.3214	0.7341	10	9.0000	1.0000	8.0000
19	6.8000	2.3944	0.7572	10	10.0000	1.0000	9.0000
20	5.9000	2.4244	0.7667	10	9.0000	1.0000	8.0000
21	2.7000	1.7029	0.5385	10	5.0000	1.0000	4.0000
22	5.0000	2.7487	0.8692	10	10.0000	1.0000	9.0000
23	5.4000	2.7568	0.8718	10	10.0000	1.0000	9.0000
24	5.4000	2.8752	0.9092	10	10.0000	1.0000	9.0000
25	4.9000	2.7264	0.8622	10	9.0000	1.0000	8.0000
26	2.7000	1.7029	0.5385	10	5.0000	1.0000	4.0000
27	5.2000	2.6583	0.8406	10	10.0000	1.0000	9.0000
28	5.6000	2.7568	0.8718	10	10.0000	1.0000	9.0000
29	5.7000	2.9078	0.9195	10	10.0000	1.0000	9.0000
30	5.1000	2.7264	0.8622	10	9.0000	1.0000	8.0000
31	5.3000	2.2632	0.7157	10	9.0000	3.0000	6.0000
32	7.2000	2.6998	0.8537	10	10.0000	3.0000	7.0000
33	6.2000	2.5734	0.8138	10	10.0000	3.0000	7.0000
34	4.0000	2.1602	0.6831	10	9.0000	2.0000	7.0000
35	5.7000	2.1108	0.6675	10	9.0000	2.0000	7.0000
36	6.4000	2.0656	0.6532	10	9.0000	2.0000	7.0000
37	6.6000	1.8379	0.5812	10	8.0000	2.0000	6.0000
38	5.9000	2.2336	0.7063	10	10.0000	3.0000	7.0000
39	5.9000	2.0248	0.6403	10	10.0000	2.0000	8.0000
40	4.8000	2.3944	0.7572	10	10.0000	2.0000	8.0000
41	5.9000	2.2828	0.7219	10	10.0000	1.0000	9.0000
42	4.6000	2.3664	0.7483	10	10.0000	1.0000	9.0000
43	5.7000	2.0028	0.6333	10	10.0000	3.0000	7.0000

BEST COPY AVAILABLE

44	4.8000	2.1499	0.6799	10	10.0000	2.0000	8.0000
45	6.0000	1.8856	0.5963	10	10.0000	3.0000	7.0000
46	5.1000	2.1833	0.6904	10	10.0000	2.0000	8.0000
47	6.1000	1.7288	0.5467	10	10.0000	5.0000	5.0000
48	6.8000	1.6193	0.5121	10	10.0000	4.0000	6.0000
49	6.9000	1.5951	0.5044	10	10.0000	5.0000	5.0000
50	6.5000	1.9003	0.6009	10	10.0000	3.0000	7.0000
51	7.0000	1.6997	0.5375	10	10.0000	5.0000	5.0000
52	7.2000	1.5492	0.4899	10	10.0000	5.0000	5.0000
53	6.6000	2.1705	0.6864	10	10.0000	3.0000	7.0000
54	6.7000	1.6354	0.5175	10	10.0000	5.0000	5.0000
55	5.8000	2.0440	0.6464	10	10.0000	3.0000	7.0000
56	4.5000	2.0138	0.6368	10	7.0000	1.0000	6.0000
57	4.9000	2.2828	0.7219	10	8.0000	1.0000	7.0000
58	5.7000	1.9465	0.6155	10	9.0000	3.0000	6.0000
59	6.0000	2.0548	0.6498	10	9.0000	3.0000	6.0000
60	6.6000	1.8379	0.5812	10	9.0000	3.0000	6.0000
61	6.6000	1.8379	0.5812	10	9.0000	3.0000	6.0000
62	6.1000	1.5951	0.5044	10	9.0000	3.0000	6.0000
63	6.5000	1.5811	0.5000	10	9.0000	4.0000	5.0000
64	5.9000	1.8529	0.5859	10	9.0000	3.0000	6.0000
65	6.2000	1.6855	0.5333	10	9.0000	4.0000	5.0000
66	6.4000	1.5776	0.4989	10	8.0000	4.0000	4.0000
67	7.7000	1.5670	0.4955	10	10.0000	4.0000	6.0000
68	4.3000	2.1108	0.6675	10	8.0000	1.0000	7.0000
69	4.4000	2.0656	0.6532	10	8.0000	1.0000	7.0000
70	5.2000	1.6865	0.5333	10	8.0000	2.0000	6.0000
71	5.3000	1.7029	0.5385	10	8.0000	2.0000	6.0000
72	6.6000	1.5776	0.4989	10	9.0000	4.0000	6.0000
73	7.0000	1.6330	0.5164	10	10.0000	5.0000	5.0000
74	4.8000	1.5492	0.4899	10	7.0000	1.0000	6.0000
75	5.0000	1.6997	0.5375	10	7.0000	1.0000	6.0000
76	2.7000	1.5670	0.4955	10	5.0000	1.0000	4.0000
77	2.7000	1.6364	0.5175	10	5.0000	1.0000	4.0000
78	3.3000	1.5670	0.4955	10	5.0000	1.0000	4.0000
79	6.1000	2.1833	0.6904	10	9.0000	1.0000	8.0000
80	6.7000	1.8288	0.5783	10	9.0000	3.0000	6.0000
81	6.8889	1.5366	0.5122	9	9.0000	5.0000	4.0000
82	6.4444	1.6667	0.5556	9	9.0000	4.0000	5.0000
83	6.4444	2.7437	0.9146	9	10.0000	3.0000	7.0000
84	5.0000	2.0000	0.6667	9	9.0000	3.0000	6.0000
85	4.0000	2.2361	0.7454	9	8.0000	1.0000	7.0000
86	3.4000	1.7127	0.5416	10	6.0000	1.0000	5.0000
87	5.7000	2.2136	0.7000	10	9.0000	2.0000	7.0000
88	5.1000	2.2336	0.7063	10	8.0000	2.0000	6.0000
89	5.3000	3.1640	1.0006	10	10.0000	1.0000	9.0000
90	6.5000	2.7588	0.8724	10	10.0000	2.0000	8.0000
91	5.5000	2.3214	0.7341	10	9.0000	2.0000	7.0000
92	4.1000	2.0248	0.6403	10	8.0000	1.0000	7.0000
93	5.0000	2.1602	0.6831	10	8.0000	2.0000	6.0000
94	6.3000	1.8886	0.5972	10	8.0000	2.0000	6.0000
95	6.9000	2.1318	0.6741	10	9.0000	2.0000	7.0000
96	3.7000	2.1628	0.6839	10	9.0000	2.0000	7.0000
97	4.8000	1.9889	0.6289	10	9.0000	2.0000	7.0000
98	6.3000	1.8886	0.5972	10	8.0000	2.0000	6.0000
99	7.0000	2.0548	0.6498	10	9.0000	2.0000	7.0000
100	7.0000	2.2913	0.7638	9	9.0000	2.0000	7.0000
101	5.1000	3.2813	1.0376	10	10.0000	1.0000	9.0000
102	6.4000	1.8379	0.5812	10	10.0000	4.0000	6.0000
103	7.0000	2.3094	0.7303	10	9.0000	2.0000	7.0000
104	7.8000	1.6865	0.5333	10	10.0000	5.0000	5.0000

BEST COPY AVAILABLE

105	6.2000	2.7406	0.8667	10	10.0000	1.0000	9.0000
106	8.1000	2.5144	0.7951	10	10.0000	2.0000	8.0000
107	5.6250	1.5059	0.5324	8	7.0000	3.0000	4.0000
108	5.7500	1.1650	0.4119	8	7.0000	4.0000	3.0000
109	6.0000	1.6903	0.5976	8	8.0000	3.0000	5.0000
110	6.5000	1.8516	0.6547	8	10.0000	4.0000	6.0000
111	4.2222	1.9861	0.6620	9	6.0000	1.0000	5.0000
112	4.5556	2.1279	0.7093	9	7.0000	1.0000	6.0000
113	3.3333	2.0000	0.6667	9	7.0000	1.0000	6.0000
114	3.3333	2.2361	0.7454	9	8.0000	1.0000	7.0000
115	3.6250	2.0659	0.7304	8	6.0000	1.0000	5.0000
116	3.6250	2.0659	0.7304	8	6.0000	1.0000	5.0000
117	3.2500	1.9086	0.6748	8	6.0000	1.0000	5.0000
118	4.2500	2.7124	0.9590	8	9.0000	1.0000	8.0000
119	4.5000	2.8785	1.0177	8	9.0000	1.0000	8.0000
120	4.7500	3.1053	1.0979	8	9.0000	1.0000	8.0000
121	4.3750	2.9246	1.0340	8	8.0000	1.0000	7.0000
122	4.3750	2.8754	1.0166	8	8.0000	1.0000	7.0000
123	4.1250	2.4749	0.8750	8	8.0000	1.0000	7.0000
124	3.5000	1.9579	0.6191	10	7.0000	1.0000	6.0000
125	4.1000	2.2828	0.7219	10	8.0000	1.0000	7.0000
126	4.1000	2.3781	0.7520	10	8.0000	1.0000	7.0000
127	4.2000	2.7406	0.8667	10	9.0000	1.0000	8.0000
128	4.1000	2.6853	0.8492	10	9.0000	1.0000	8.0000
129	4.3000	2.6687	0.8439	10	9.0000	1.0000	8.0000
130	3.5000	2.0683	0.6540	10	8.0000	1.0000	7.0000

APPENDIX VIII

Item Analysis Second Iteration Delphi Study

BEST COPY AVAILABLE

PROBLEM CARD
 PROBLEM NUMBER A00003 METHOD NUMBER 1
 NUMBER OF CASES 10 NUMBER OF SPECIAL VALUES 0
 NUMBER OF VARIABLES 130 NUMBER OF TRANSENERGATIONS 0
 NUMBER OF VARIABLES ADDED 0 INPUT TAPE NUMBER 5
 NUMBER OF VARIABLE FORMAT CARDS 1

VARIABLE FORMAT CARD(S)
 (5X,37F2.0/5X,37F2.0/5X,37F2.0/5X19F2.0)

VAR NO	MEAN	S.D.	S.E. OF MEAN	SAMPLE	MAXIMUM	MINIMUM	RANGE
1	1.7700	0.6749	0.2134	10	3.0000	1.0000	2.0000
2	4.4600	0.8433	0.2667	10	6.0000	3.0000	3.0000
3	5.4000	1.5055	0.4761	10	8.0000	3.0000	5.0000
4	5.6000	1.6465	0.5207	10	8.0000	3.0000	5.0000
5	5.7000	1.6364	0.5175	10	8.0000	3.0000	5.0000
6	1.8000	0.9189	0.2906	10	4.0000	1.0000	3.0000
7	5.0000	1.0541	0.3333	10	7.0000	4.0000	3.0000
8	6.0000	1.3333	0.4216	10	8.0000	4.0000	4.0000
9	6.1000	1.5239	0.4819	10	8.0000	4.0000	4.0000
10	5.8000	1.6865	0.5333	10	8.0000	3.0000	5.0000
11	1.5000	0.5270	0.1667	10	2.0000	1.0000	1.0000
12	4.3000	1.4191	0.4485	10	6.0000	2.0000	4.0000
13	5.2000	1.6193	0.5121	10	8.0000	3.0000	5.0000
14	5.6000	1.8379	0.5812	10	8.0000	2.0000	6.0000
15	5.7000	1.8288	0.5783	10	8.0000	2.0000	6.0000
16	1.6000	0.5154	0.1633	10	2.0000	1.0000	1.0000
17	5.0000	1.2472	0.3944	10	7.0000	3.0000	4.0000
18	5.9000	1.5239	0.4819	10	8.0000	3.0000	5.0000
19	5.9000	1.7920	0.5667	10	8.0000	2.0000	6.0000
20	5.6000	1.8379	0.5812	10	8.0000	2.0000	6.0000
21	1.5000	0.5270	0.1667	10	2.0000	1.0000	1.0000
22	4.0000	1.4907	0.4714	10	6.0000	2.0000	4.0000
23	5.0000	1.8257	0.5773	10	8.0000	2.0000	6.0000
24	5.0000	1.9435	0.6146	10	8.0000	2.0000	6.0000
25	4.6000	2.1705	0.6864	10	8.0000	2.0000	6.0000
26	1.5000	0.5270	0.1667	10	2.0000	1.0000	1.0000
27	4.0000	1.4907	0.4714	10	6.0000	2.0000	4.0000
28	4.9000	1.9119	0.6046	10	8.0000	2.0000	6.0000
29	4.7000	2.0575	0.6506	10	8.0000	2.0000	6.0000
30	4.3000	2.3118	0.7311	10	8.0000	2.0000	6.0000
31	3.4000	1.2649	0.4000	10	6.0000	1.0000	5.0000
32	5.7000	2.1628	0.6839	10	9.0000	3.0000	6.0000
33	5.2000	2.0976	0.6633	10	9.0000	3.0000	6.0000
34	2.9000	1.1972	0.3786	10	5.0000	1.0000	4.0000
35	4.5000	1.2693	0.4014	10	7.0000	3.0000	4.0000
36	6.2000	1.1353	0.3590	10	8.0000	4.0000	4.0000
37	6.3000	1.1595	0.3667	10	8.0000	5.0000	3.0000
38	5.5000	1.7795	0.5627	10	8.0000	2.0000	6.0000
39	5.3000	1.6364	0.5175	10	8.0000	3.0000	5.0000
40	3.2000	1.3166	0.4163	10	5.0000	2.0000	3.0000
41	4.9000	2.0790	0.6574	10	8.0000	2.0000	6.0000
42	3.9000	1.5239	0.4819	10	6.0000	1.0000	5.0000
43	5.2000	1.5492	0.4899	10	8.0000	3.0000	5.0000

BEST COPY AVAILABLE

44	4.5000	1.0801	0.3416	10	7.0000	3.0000	4.0000
45	6.0000	2.0000	0.6325	10	9.0000	4.0000	5.0000
46	5.4000	1.8379	0.5812	10	9.0000	3.0000	6.0000
47	5.8000	2.0440	0.6464	10	9.0000	3.0000	6.0000
48	6.2000	1.9899	0.6289	10	9.0000	4.0000	5.0000
49	5.0000	1.3333	0.4216	10	7.0000	3.0000	4.0000
50	5.0000	1.1547	0.3451	10	7.0000	3.0000	4.0000
51	6.2000	1.3156	0.4163	10	8.0000	4.0000	4.0000
52	6.9000	2.0790	0.6574	10	10.0000	4.0000	6.0000
53	6.6667	1.4142	0.4714	9	8.0000	4.0000	4.0000
54	5.8889	1.3642	0.4547	9	8.0000	4.0000	4.0000
55	5.3333	1.1180	0.3727	9	7.0000	4.0000	3.0000
56	3.7000	1.4944	0.4726	10	6.0000	1.0000	5.0000
57	4.2000	1.6193	0.5121	10	7.0000	1.0000	6.0000
58	4.7000	1.4191	0.4485	10	6.0000	1.0000	5.0000
59	4.6000	1.5055	0.4761	10	6.0000	1.0000	5.0000
60	4.2000	1.4757	0.4667	10	7.0000	3.0000	4.0000
61	4.3000	1.4944	0.4726	10	7.0000	3.0000	4.0000
62	5.5000	1.5811	0.5000	10	7.0000	2.0000	5.0000
63	5.4000	1.4298	0.4522	10	7.0000	2.0000	5.0000
64	4.4000	1.2649	0.4000	10	6.0000	2.0000	4.0000
65	4.4000	1.4298	0.4522	10	6.0000	2.0000	4.0000
66	4.6000	1.4298	0.4522	10	6.0000	2.0000	4.0000
67	5.9000	1.9119	0.6046	10	9.0000	3.0000	6.0000
68	3.2000	1.5492	0.4899	10	6.0000	2.0000	4.0000
69	3.6000	1.7764	0.5617	10	6.0000	2.0000	4.0000
70	4.3000	1.6364	0.5175	10	7.0000	2.0000	5.0000
71	4.4000	1.7127	0.5416	10	7.0000	2.0000	5.0000
72	5.5000	1.5811	0.5000	10	7.0000	2.0000	5.0000
73	5.6000	1.5776	0.4989	10	7.0000	2.0000	5.0000
74	5.0000	1.8856	0.5963	10	7.0000	2.0000	5.0000
75	5.0000	1.8856	0.5963	10	7.0000	2.0000	5.0000
76	1.9000	0.9944	0.3145	10	3.0000	1.0000	2.0000
77	2.6000	1.7127	0.5416	10	6.0000	1.0000	5.0000
78	3.6000	2.2211	0.7024	10	8.0000	1.0000	7.0000
79	5.7000	1.4181	0.4685	10	8.0000	4.0000	4.0000
80	6.0000	1.2472	0.3944	10	8.0000	4.0000	4.0000
81	5.3000	1.8288	0.5783	10	8.0000	2.0000	6.0000
82	5.0000	1.8257	0.5773	10	7.0000	2.0000	5.0000
83	4.9000	1.5239	0.4819	10	8.0000	3.0000	5.0000
84	3.8000	1.6193	0.5121	10	6.0000	1.0000	5.0000
85	3.2222	1.4814	0.4938	9	6.0000	1.0000	5.0000
86	2.5000	0.8498	0.2687	10	4.0000	1.0000	3.0000
87	6.1000	0.7379	0.2333	10	7.0000	5.0000	2.0000
88	5.1000	0.9944	0.3145	10	6.0000	4.0000	2.0000
89	3.6000	2.1187	0.6700	10	7.0000	1.0000	6.0000
90	5.1000	2.1318	0.6741	10	8.0000	2.0000	6.0000
91	4.3000	1.7029	0.5385	10	7.0000	2.0000	5.0000
92	3.1000	1.4491	0.4583	10	6.0000	1.0000	5.0000
93	4.1000	1.5239	0.4819	10	7.0000	2.0000	5.0000
94	6.0000	1.3333	0.4216	10	7.0000	4.0000	3.0000
95	6.2000	1.2293	0.3887	10	8.0000	4.0000	4.0000
96	2.6667	1.7320	0.5773	9	6.0000	1.0000	5.0000
97	4.5556	1.5899	0.5300	9	7.0000	2.0000	5.0000
98	5.6667	1.0000	0.3333	9	7.0000	4.0000	3.0000
99	6.1111	0.9280	0.3093	9	8.0000	5.0000	3.0000
100	6.2222	2.2791	0.7597	9	9.0000	2.0000	7.0000
101	3.7000	2.5841	0.8172	10	8.0000	1.0000	7.0000
102	4.8000	1.4757	0.4667	10	7.0000	3.0000	4.0000
103	6.4000	1.0750	0.3399	10	8.0000	4.0000	4.0000
104	6.4000	2.2211	0.7024	10	10.0000	3.0000	7.0000

BEST COPY AVAILABLE

105	4.6000	1.6465	0.5207	10	7.0000	2.0000	5.0000
106	7.3000	2.0028	0.6333	10	10.0000	4.0000	6.0000
107	4.2000	1.2293	0.3887	10	6.0000	2.0000	4.0000
108	4.5000	1.3540	0.4282	10	6.0000	2.0000	4.0000
109	4.5000	1.5092	0.4773	10	6.0000	2.0000	4.0000
110	4.4000	1.4298	0.4522	10	6.0000	2.0000	4.0000
111	3.4000	1.5055	0.4761	10	6.0000	2.0000	4.0000
112	3.4000	1.5055	0.4761	10	6.0000	2.0000	4.0000
113	3.5000	1.6499	0.5217	10	6.0000	2.0000	5.0000
114	3.5000	1.6499	0.5217	10	6.0000	1.0000	5.0000
115	4.2000	2.0976	0.6633	10	7.0000	1.0000	6.0000
116	4.3000	2.2136	0.7000	10	7.0000	1.0000	6.0000
117	2.4000	1.0750	0.3399	10	5.0000	1.0000	4.0000
118	2.6000	0.9651	0.3055	10	5.0000	2.0000	3.0000
119	2.6000	0.9651	0.3055	10	5.0000	2.0000	3.0000
120	2.6000	0.9661	0.3055	10	5.0000	2.0000	3.0000
121	3.2000	1.9889	0.6289	10	8.0000	2.0000	6.0000
122	2.8000	1.3166	0.4163	10	5.0000	2.0000	3.0000
123	3.1000	1.4491	0.4583	10	6.0000	2.0000	4.0000
124	3.1000	1.5951	0.5044	10	6.0000	2.0000	4.0000
125	3.0000	1.4907	0.4714	10	6.0000	2.0000	4.0000
126	2.9000	1.4491	0.4583	10	6.0000	2.0000	4.0000
127	3.1000	1.7920	0.5667	10	6.0000	2.0000	4.0000
128	3.1000	1.7920	0.5667	10	6.0000	2.0000	4.0000
129	2.9000	1.4491	0.4583	10	5.0000	2.0000	3.0000
130	3.0000	1.7638	0.5578	10	7.0000	2.0000	5.0000

UNIVERSITY OF CALIF.
LOS ANGELES

APR 4 1975

CLEARINGHOUSE FOR
JUNIOR COLLEGE
...FORMATION