

JONESBORO TRANSPORTATION MODEL

STATEMENT OF PROBLEM

Jonesboro is the largest city in Arkansas without a demand modeling process for present and future transportation needs. A transportation model should be developed that could analyze present transportation patterns and predict future needs. The Arkansas State Highway and Transportation Department (AHTD) has a microcomputer software package which could be used in the development of long-range transportation plans for urban areas. The AHTD has stated they would model Jonesboro's transportation patterns if the data was provided in the proper format. This research project will collect the required data for the transportational model and prepare a report of the model's results.

ANTICIPATED RESULTS

This project should result in the following:

1. The collection of the data required for the implementation of the AHTD long-range transportation model.
2. The presentation of the results of the model in a report stating present and future transportation needs for the city of Jonesboro.

The information acquired from this project, changes in the appropriate city ordinances, and the establishment of a city planning department to oversee the implementation of the suggested transportation needs would produce a transportational network that should meet Jonesboro's future transportational needs.

WORK PLAN

This project will be accomplished in the following manner:

1. A committee will oversee the development of the transportation model and the final transportation plan for Jonesboro. The committee will consist of representatives from Arkansas State University, Metropolitan Area Planning Commission, Jonesboro City Government, East Arkansas Planning and Development District, and the Jonesboro Chamber of Commerce Streets and Highways Committee.
2. The data collection and writing of the report summarizing the results of the transportation model will be accomplished by ASU. A grant of \$6,000.00 will be awarded to ASU by the city of Jonesboro to provide funds for the data collection and report writing. The work will be conducted by ASU students under the direction of Thomas J. Parsons and Hubert B. Stroud, professors at ASU.
3. The Arkansas State Highway and Transportation Department will model Jonesboro's transportation network and model the traffic patterns for present and future needs.

BUDGET

All work performed by the committee and AHTD will be done without charge.

ASU grant funding

Student help. \$3.35/hr 20 hr/week

Spring 1988	Cost
3 students	\$3300.
Fall 1988	
2 students	<u>2200.</u>
	\$5500.
Supplies and report reproduction	<u>500</u>
Total	\$6000

PLAN STEPS

The work will take place in the following stages:

1. Division of Jonesboro into traffic zones.
2. Determination of population in each zone for 1980, 1987 and 2010.
3. Determination of number of dwelling units in each zone for 1980, 1987 and 2010.
4. Determination of average income in each zone for 1980, 1987 and 2010.
5. Determination of employment:
 - a. Employment per zone in 1980 (retail and non retail).
 - b. Contact employers to obtain list of employees to be used for determination of present employment.
 - c. Determination of retail and non retail employment in each zone for 1987 and 2010.
6. Present network to be modeled by AHTD.
7. Present data to AHTD.
8. Receive results and write summary report.
 - a. 1988 needs and suggested changes.
 - b. 2010 needs and suggested traffic requirements.

Plan Time Table

Step	1987							1988						
	N	D	J	F	M	A	M	J	J	A	S	O	N	D
1	C	C												
2			C	C										
			A	A										
3			C	C										
			A	A										
4				C	C									
				A	A									
5				C	C	C	C							
				A	A	A	A							
6					H	H	H							
7							H	H	H	H				
8										C	C	C	C	C
										A	A	A	A	A

C Work by committee

A Work by ASU

H Work by AHTD