ON-BOARD RIDERSHIP SURVEY REPORT
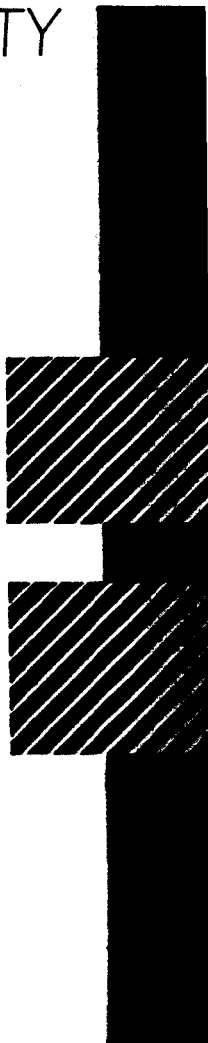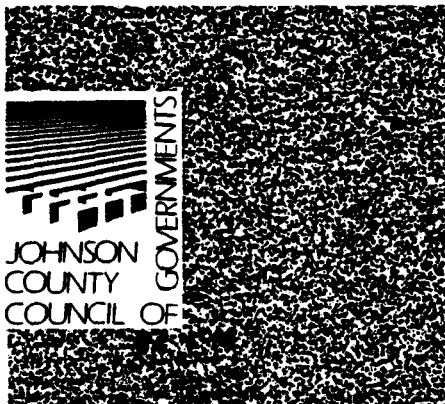
OAKDALE AND PENTACREST ROUTES

MARCH 1988

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1988

UNIVERSITY
OF
IOWA
CAMBUS
SYSTEM

JOHNSON
COUNTY
COUNCIL OF GOVERNMENTS

ON-BOARD RIDERSHIP SURVEY REPORT

Oakdale and Pentacrest Routes

University of Iowa CAMBUS System

Prepared by the Johnson County Council of Governments

March 1988

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INTRODUCTION AND SURVEY METHODOLOGY

In FY85 an on-board ridership survey was conducted for the University of Iowa CAMBUS system by the Johnson County Council of Governments (JCCOG). Two routes, Pentacrest and Oakdale, were not surveyed. The Pentacrest route was not included in the survey because of re-routing due to the reconstruction of the Iowa Avenue bridge. The Oakdale route was not surveyed because of the different characteristics of this route from the rest of the system, and its interaction with the Pentacrest route.

An item was included in the FY88 JCCOG Transportation Planning Work Program to conduct an on-board survey of the Pentacrest and Oakdale routes. The purpose of the survey is to gather general information pertaining to the characteristics of users of these two routes, and to learn what perceptions users of these routes have about CAMBUS. In addition, CAMBUS management staff indicated they would like to see information about University parking lot usage and hospital usage by people riding on these two routes.

The specific areas addressed in the survey are:

1. For what purpose are people riding these two routes?

2. What are the predominant origins and destinations?

3. What is the University status of users?

4. What information is available about hospital users?

5. What information is available about University parking lot users?

6. How do users feel about CAMBUS':

   a. frequency of service

   b. schedule reliability

   c. driver courtesy

   d. location of bus stops

   e. safety

A questionnaire (see Figure 1) was developed which addressed each of these points and also gave riders the opportunity to comment on any other aspect of the system.

CAMBUS SURVEY

CAMBUS is conducting a survey of the Pentacrest and Oakdale routes in effort to better analyze and evaluate our services. Please assist us by taking a few moments to complete this questionnaire and placing it in the containers provided as you leave the bus. Thank you for your cooperation and valued assistance.

1. What is the primary purpose of this trip? (Check <u>ONE</u> only)

    _____Home, off-campus _____Home, on-campus _____Home, Oakdale
    _____Class   _____Shopping   _____Medical
    _____Work   _____Other_____

2. Where did you come from before getting on this bus? (Check ONE only)

    _____UI Hospital   _____VA Hospital
    _____UI Parking Lot (please name lot)_____
    _____Other UI Building (please name)_____
    _____Oakdale Campus (please name Dept.)_____
    _____Another Bus (please name route)_____
    _____Other (please name)_____

3. Where will you go just after getting off this bus? (Check ONE only)

    _____UI Hospital   _____VA Hospital
    _____UI Parking Lot (please name lot)_____
    _____Other UI Building (please name)_____
    _____Oakdale Campus (please name Dept.)_____
    _____Another Bus (please name route)_____
    _____Other (please name)_____

4. What is your University status? (Check ONE only)

    _____Student   _____Hospital patient or visitor
    _____Faculty/Staff   _____Not associated with University

5. How do you rate the following aspects of Cambus?

	Very Good	Good	Fair	Poor	Very Poor
a. Frequency of buses	____	____	____	____	____
b. Schedule reliability	____	____	____	____	____
c. Driver courtesy	____	____	____	____	____
d. Location of bus stops	____	____	____	____	____
e. Safety	____	____	____	____	____

6. Additional Comments:_____

_____

_____

On Wednesday, February 17, 1988, the survey was conducted by JCCOG staff and CAMBUS operators on-board the Pentacrest and Oakdale routes. The questionnaire was distributed from 6:24 a.m. to 6:09 p.m. on the Pentacrest route, and from 6:15 a.m. to 9:00 p.m. on the Oakdale route. A questionnaire was given to each person who boarded the bus, which they then completed on the bus. Questionnaires were collected at the end of each trip and coded with the route name and departure time. A total of 706 surveys were completed on the Pentacrest route and 178 on the Oakdale route.

The following section summarizes the results of the questionnaire. Frequency data for each graphic are included in the appendix.

RESULTS

Question 1:

What is the primary purpose of this trip?

OVERALL RESPONSE

Pentacrest

6% 17% 5% 1% 28% 50.6% 4% 9% 30%

Oakdale

.6% 16.8% 1.7% 7.9% 50.6% 19% 2.8% .6%
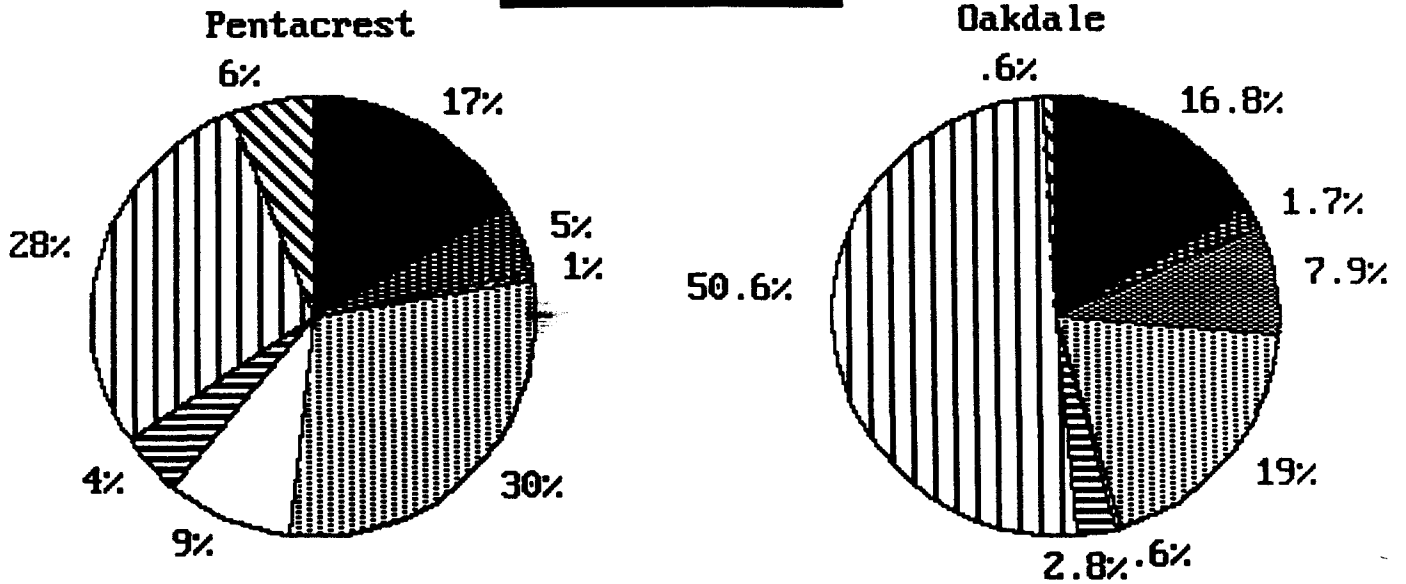
■ Home, off-campus	▦ Home, on-campus	▨ Home, Oakdale	▦ Class
□ Shopping	▤ Medical	⊞ Work	◩ Other

The responses to this question indicate that these two routes are used primarily to travel to class or work. On the Pentacrest route 58% of the respondents use the bus to get to class or work. On the Oakdale route 70% of the respondents use the bus for those purposes. The second highest trip purpose was to go home.

Where did you come from before getting on this bus?

OVERALL RESPONSE

Pentacrest

25%   26%

4%
1%   3%
1%

40%

Oakdale

14%
1.1%
30.9%   5.6%

6.2%

12.4%
29.8%

| ■ UI Hospital | ▦ VA Hospital | ▩ UI Parking Lot | ▦ Other UI Bldg. |
| □ Oakdale Campus | ▤ Another bus | ▥ Other | |
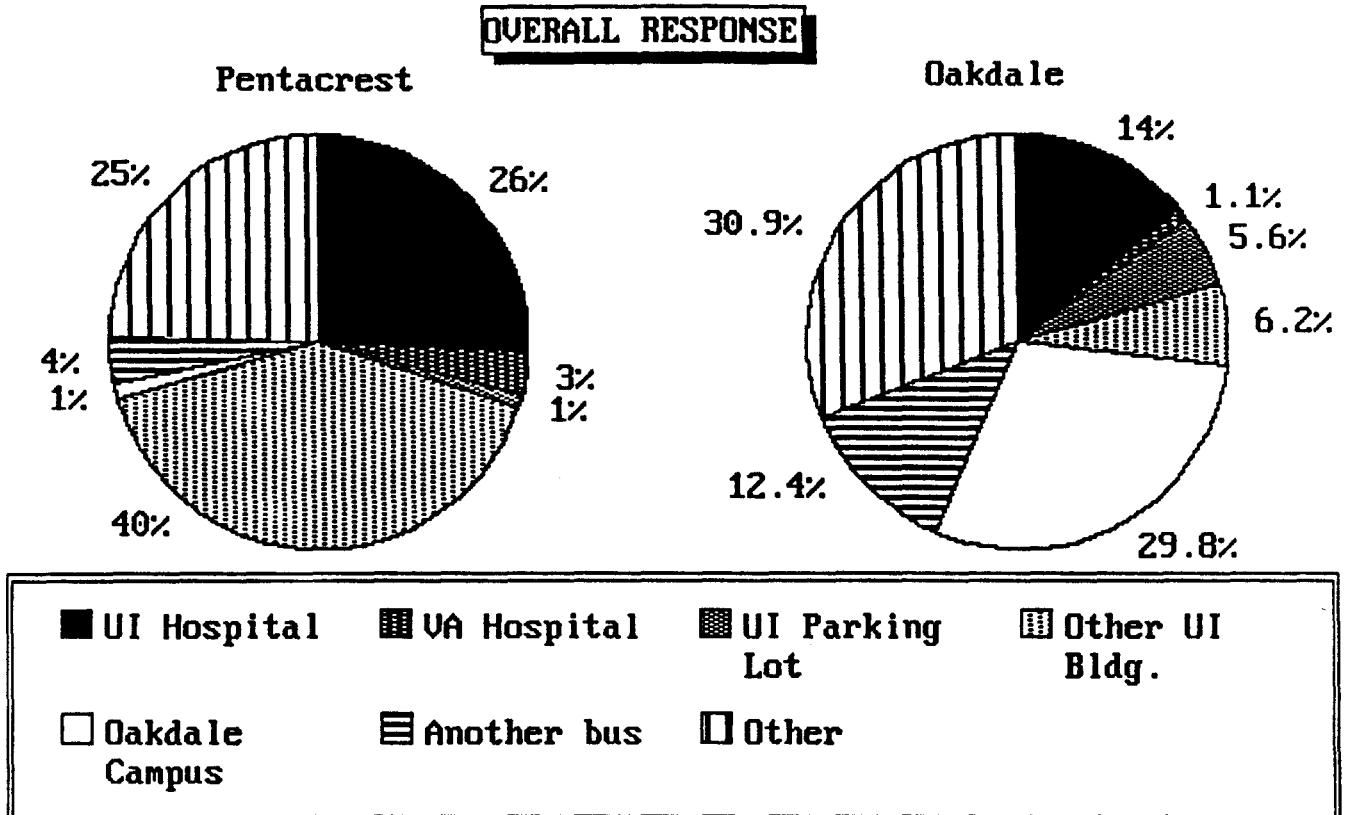
The majority of respondents (40%) on the Pentacrest route originated their trip from another UI Building. The second and third most frequent origins were the UI Hospital and "Other," 26% and 25% respectively. The largest number of respondents on the Oakdale route, 31%, checked "Other" as their trip origin. These responses are elaborated in the following graphs.

Pentacrest

.6% .6%
1.2%
27.5%
70.1%

	Home		Downtown
	Pentacrest		Quad
	Other		

Oakdale

1.8% 1.8% 3.6%
7.3%
29.1%
56.4%

	Home		North Liberty
	Cedar Rapids		Solon
	Downtown		Other
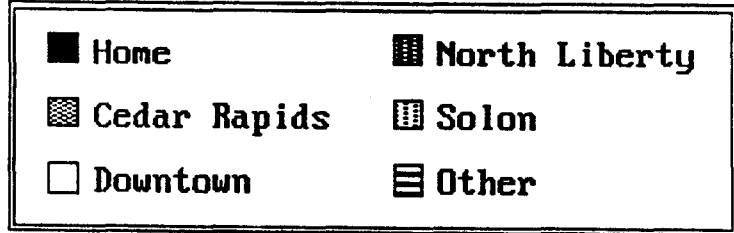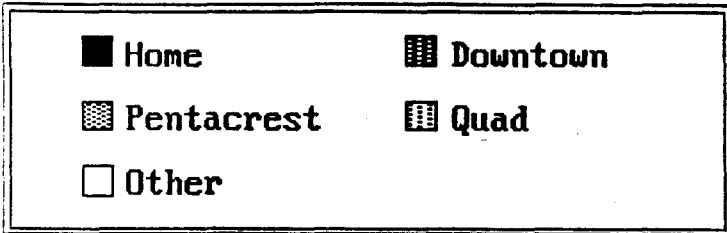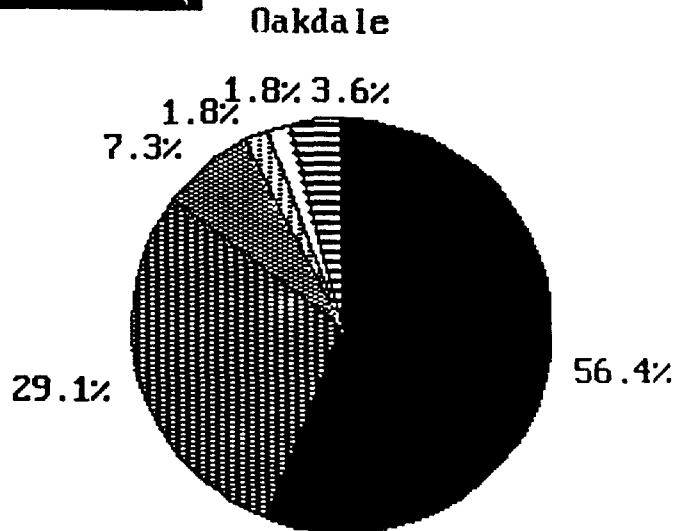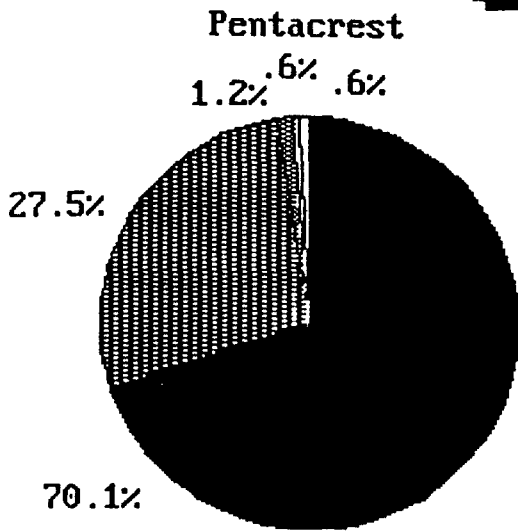
TRIP ORIGIN - Other UI Bldg., Pentacrest Route

Frequency

140 — 133
120
100 — 94
80
60
40 — 26   23
20
0 —   8

UI Hospital   Pentacrest   Library/IMU   Other   E.Dorm/ Mayflower

Area

Where will you go just after getting off this bus?

OVERALL RESPONSE

Pentacrest

Oakdale

.1%
17.5%
30.2%
3.2%
.9%
6%
.3%
41.8%

9.5%
28.7%
19.7%
2.8%
5.6%
23%
10.7%

| ■ UI Hospital | ▤ VA Hospital | ▨ UI Parking Lot | ▦ Other UI Bldg. |
| □ Oakdale Campus | ▤ Another bus | ▥ Other | ◩ No Response |
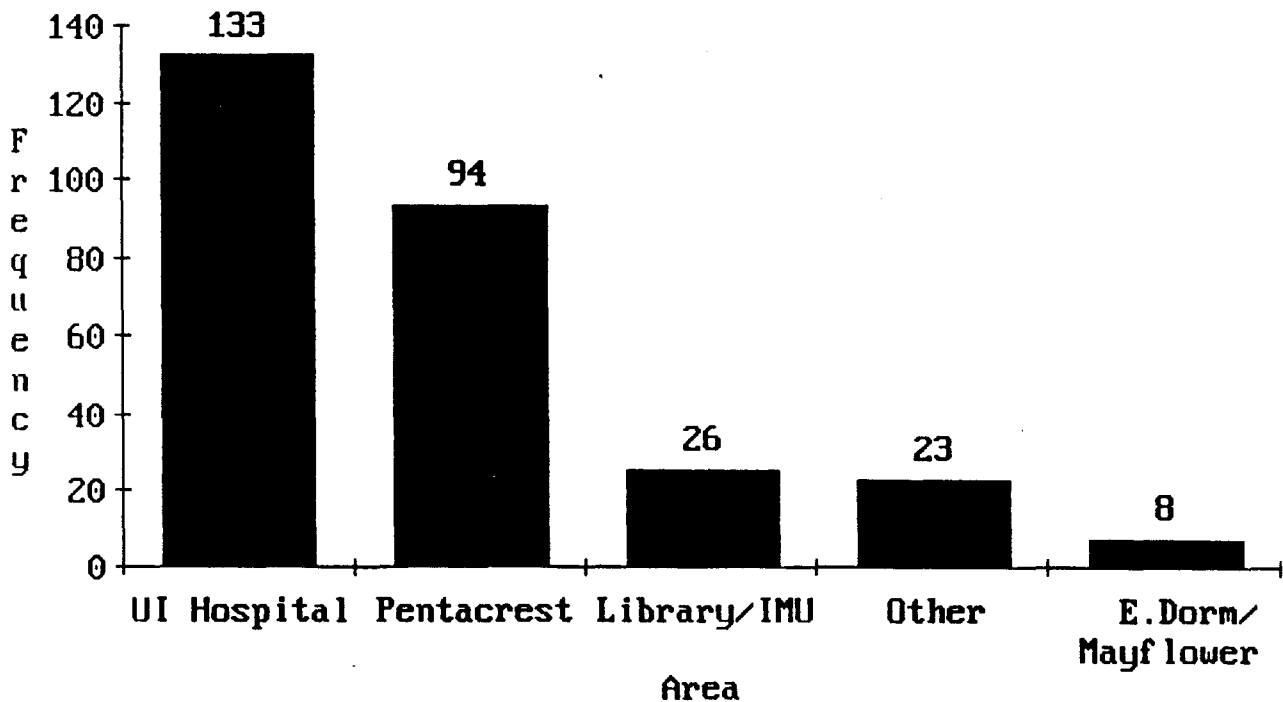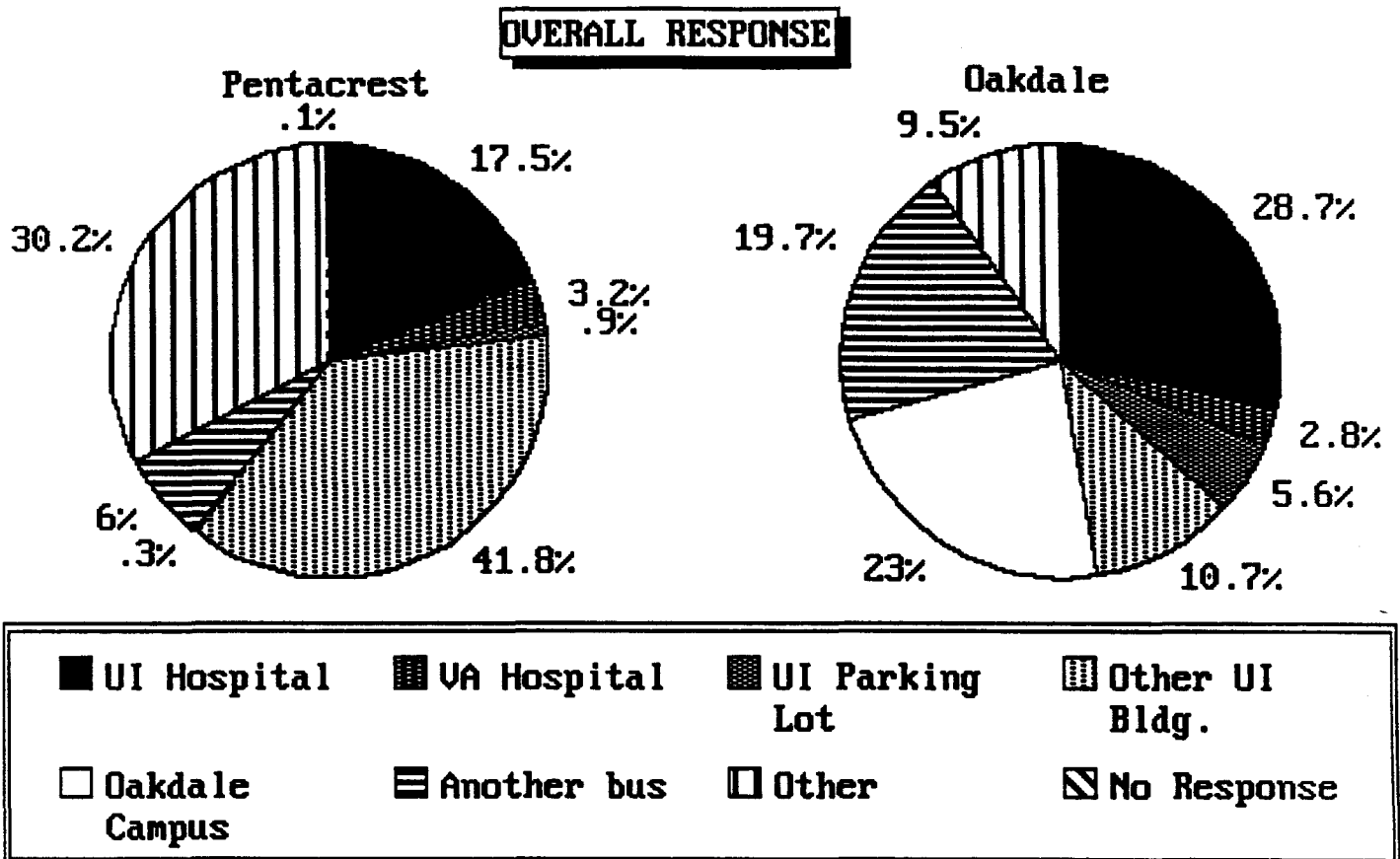
The trip destinations of respondents on the Pentacrest route followed a similar pattern as the trip origins. The largest number, 41.8%, indicated "Other UI Building," as their destination. The next two highest destinations were "Other" and "UI Hospital" with 42% and 18% of the respondents respectively. The most frequent response on the Oakdale route was "UI Hospital," 29%.

Trip Destination - Other UI Building: Pentacrest Route

	Frequency	%
Pentacrest Area	110	37
UI Hospital Area	92	31
IMU/Main Library Area	50	17
Other	22	8
West Side Dorm Area	15	5
East Side Dorm Area	6	2
Total	295	100

Trip Destination - Oakdale Campus: Oakdale Route

	Frequency	%
Oakdale Apartments	11	26.8
Oakdale	7	17.1
Hygenics Lab	5	12.2
Oakdale Hall	4	10.0
Technology Innovation Center	2	4.9
Chemical Dependency	2	4.9
CEEDE	2	4.9
Labor Center	1	2.4
Ag Med Research	1	2.4
Public Affairs	1	2.4
Family Dental	1	2.4
Conduit	1	2.4
Pentacrest	1	2.4
Print Shop	1	2.4
No answer	1	2.4
Total	41	100.0

OVERALL RESPONSE

Pentacrest

1.4% 2.6% .5%

30.9%

64.6%

Oakdale

8.4%

1.1%

33.7%

56.8%

| ■ Student | ▦ Faculty/Staff | ▓ Hospital Patient/Vis | ▤ Not Assoc. w/UI |
| □ No Answer | | | |
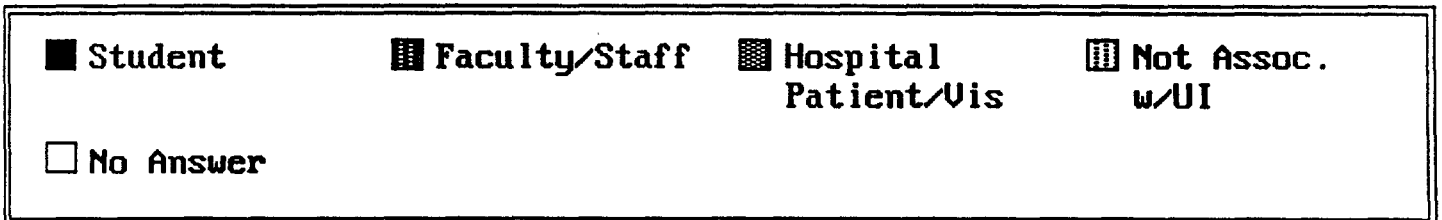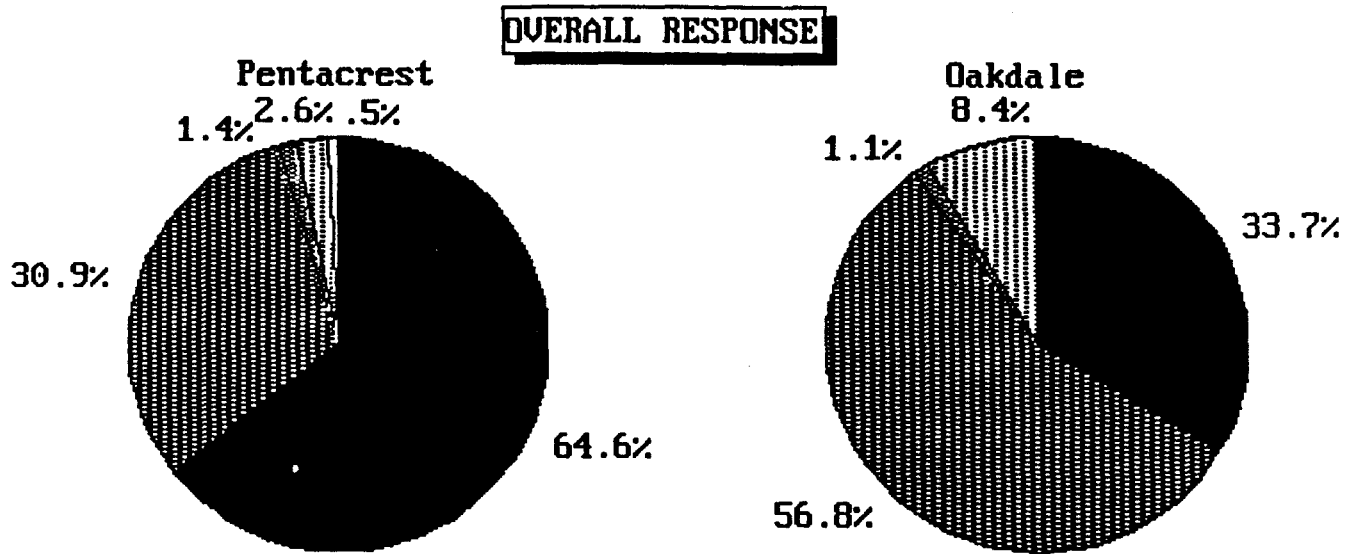
On the Pentacrest route, the majority of the respondents, 95%, were either students or faculty/staff. The percentage for these two groups on the Oakdale route was 91%.

How do you rate the following aspects of Cambus?

The following responses indicate a generally favorable user perception of CAMBUS.

a. Frequency of Buses

Pentacrest

2% 1% 2%
13%
37%
46%

Oakdale

4% 1% 1%
15%
25%
54%

| ■ Very good | ▓ Good | ▓ Fair | ▦ Poor |
| □ Very Poor | ☰ No Answer | | |
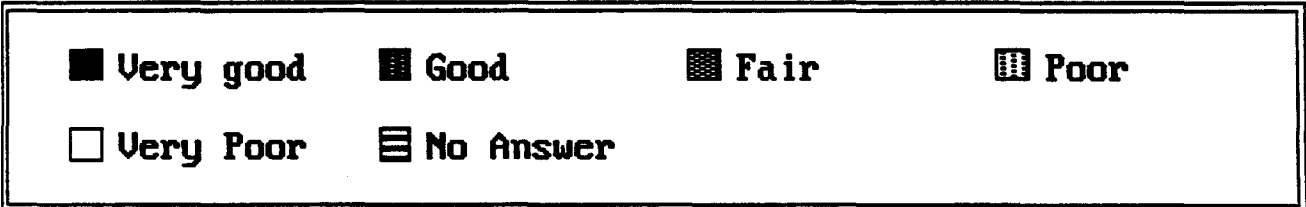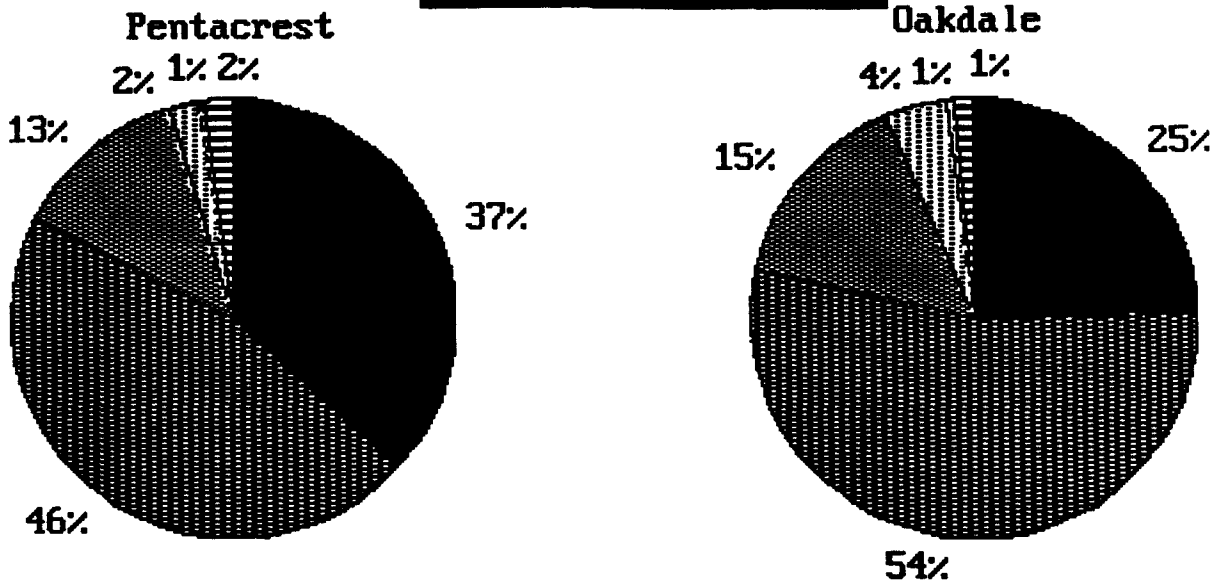
The respondents on the Pentacrest and Oakdale routes, 83% and 79%, respectively, indicated that the frequency of buses on CAMBUS is good or very good.

b. Schedule Reliability

Pentacrest

5%   3%   12%
11%
34%
35%

Oakdale

7%   1%   3%
13%
33%
43%

■ Very good	▦ Good	▨ Fair	▥ Poor
☐ Very Poor	☰ No Answer		
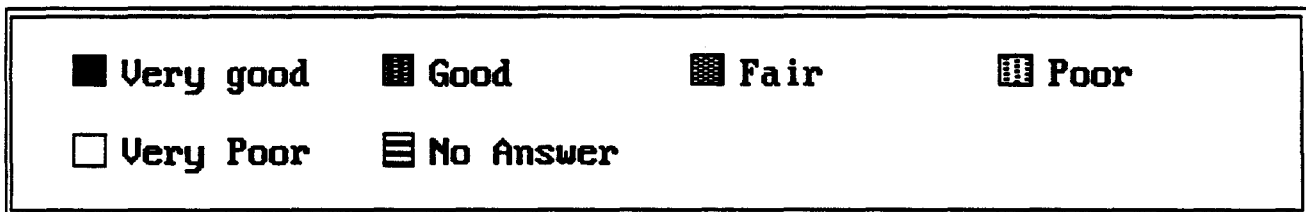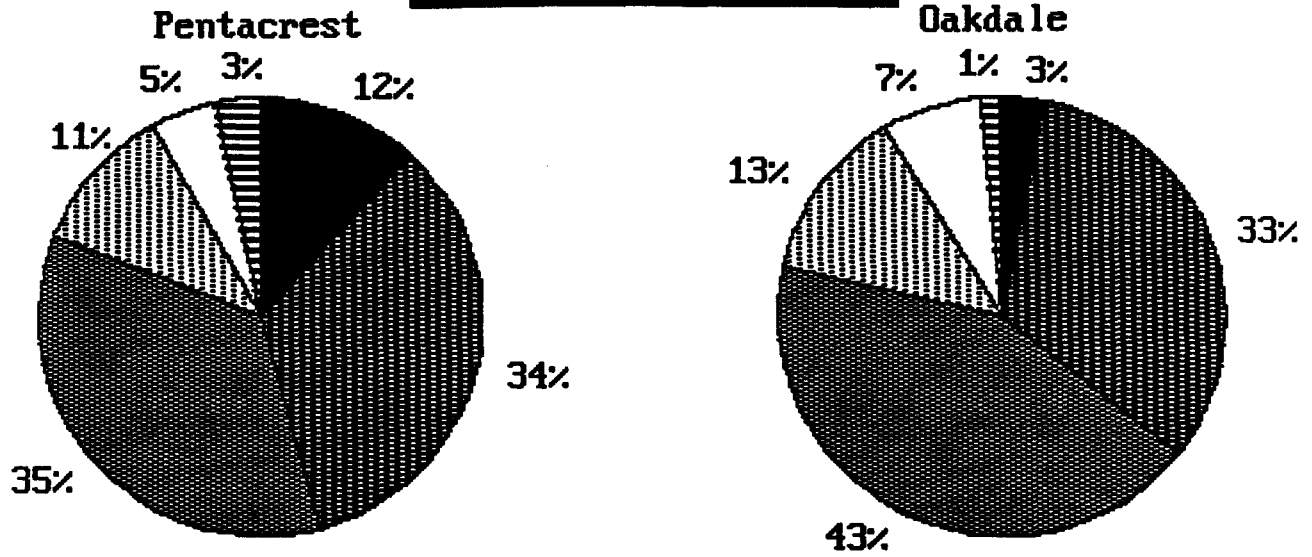
Schedule reliability received the lowest rating among respondents on both the Pentacrest and Oakdale routes. On the Pentacrest route 41% of the respondents felt that schedule reliability was fair or poor. On the Oakdale route 56% of the respondents indicated fair or poor.

c. Driver Courtesy

Pentacrest

1% 3%
9%
38%
49%

Oakdale

1% 2%
13%
28%
56%

■ Very good	▦ Good	▒ Fair	▦ Poor
□ No Answer			
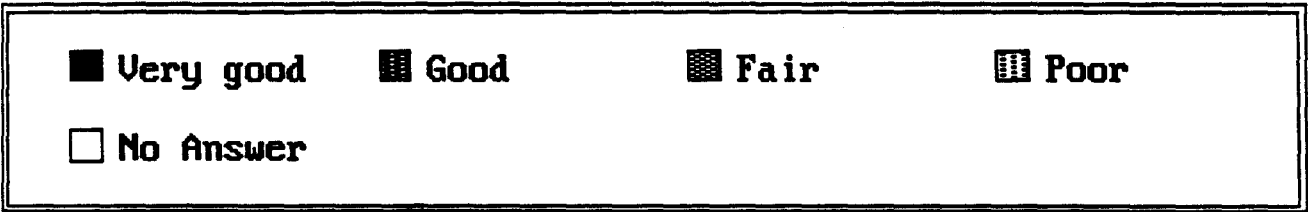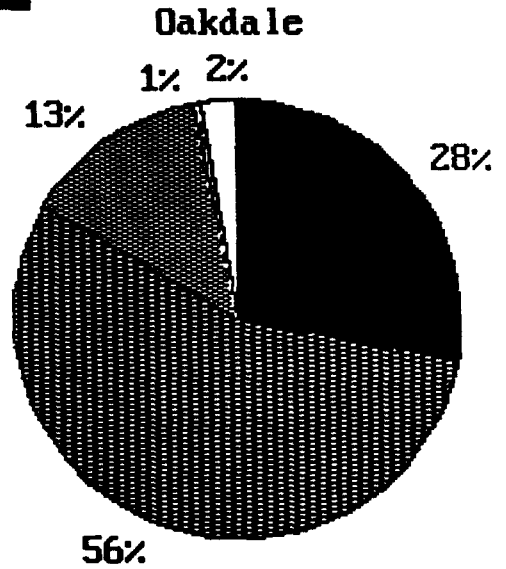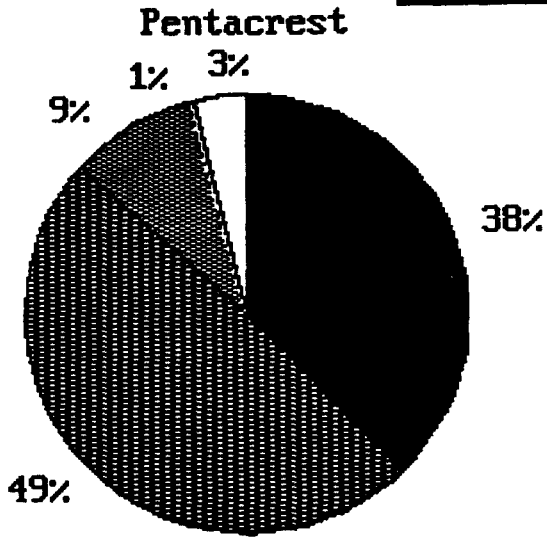
Respondents on both routes were very satisfied with driver courtesy. The percentage of those responding very good or good was 87% on the Pentacrest route and 84% on the Oakdale route.

d. Location of Bus Stops

Pentacrest

1% 3%
1%
9%
33%
53%

Oakdale

1% 1% 1%
1%
15%
23%
60%

| ■ Very good | ▦ Good | ▨ Fair | ▦ Poor |
| □ Very Poor | ▤ No Answer | | |
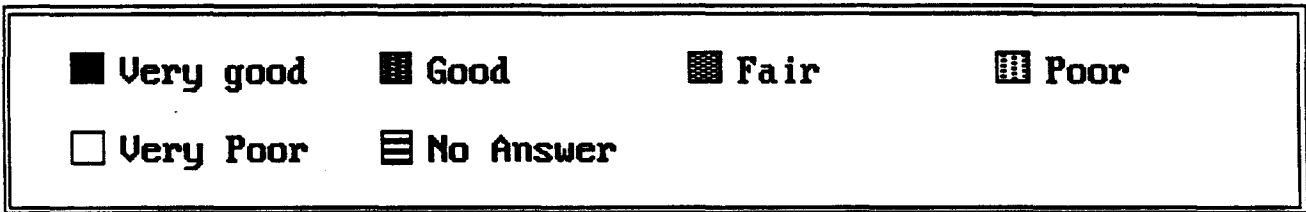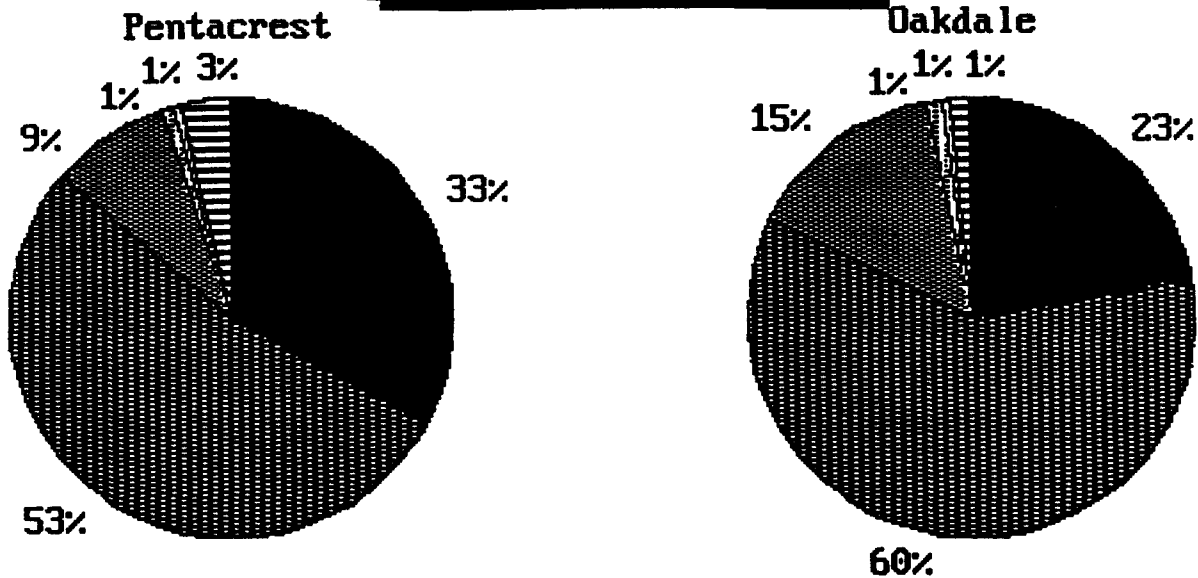
Respondents on both routes indicated that bus stop locations are accept-
able. On the Pentacrest route 81% indicated that bus stop locations are
good or very good. Response from the Oakdale route was 83% good or very
good.

(13)

Pentacrest

1% 4%
1%
12%
30%
52%

Oakdale

1% 1% 2%
1%
16%
18%
62%

| ■ Very good | ▦ Good | ▨ Fair | ▥ Poor |
| □ Very Poor | ▤ No Answer | | |
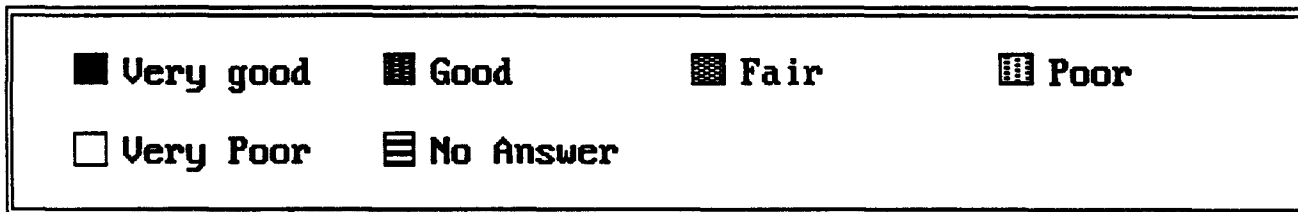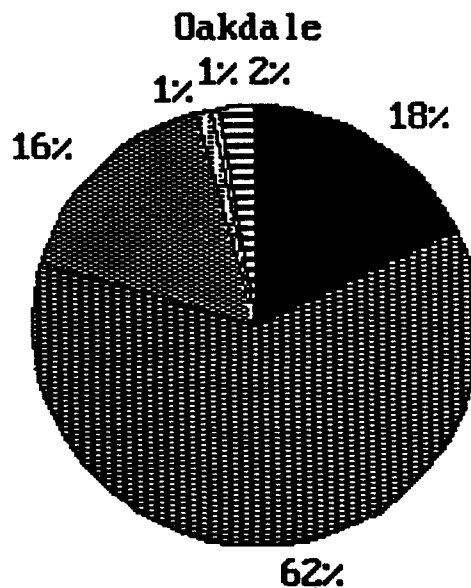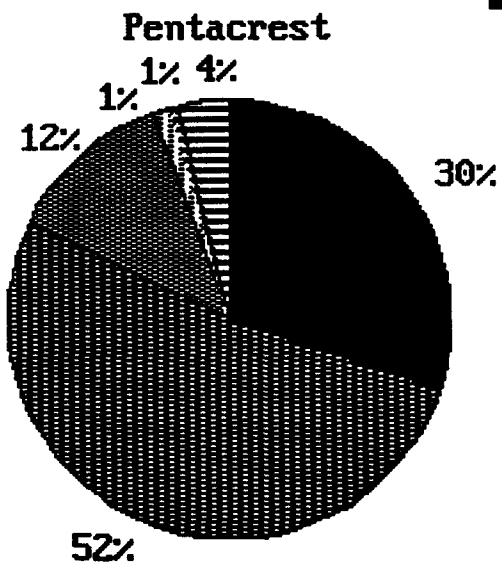
Respondents on both routes are satisfied with safety. On the Pentacrest route 82% felt that safety was good or very good. On the Oakdale route 80% responded good or very good.

14

HOSPITAL USER ANALYSIS

A specific user group that the CAMBUS staff was interested in obtaining information about were those persons using CAMBUS to or from the University Hospital area. Forty-one percent of those responding to the survey indicated that their origin or destination was University Hospital.

A separate analysis was done using those survey respondents from both the Pentacrest and Oakdale routes who indicated their origin or destination was University Hospitals. The following figures illustrate the characteristics of riders going to and from the University Hospital area.

UNIVERSITY STATUS

2% 1% 1%

41%

55%

■ Student

▦ Faculty/Staff

▨ Hospital Patient/Visitor

▥ Not Assoc. with UI

☐ No Answer
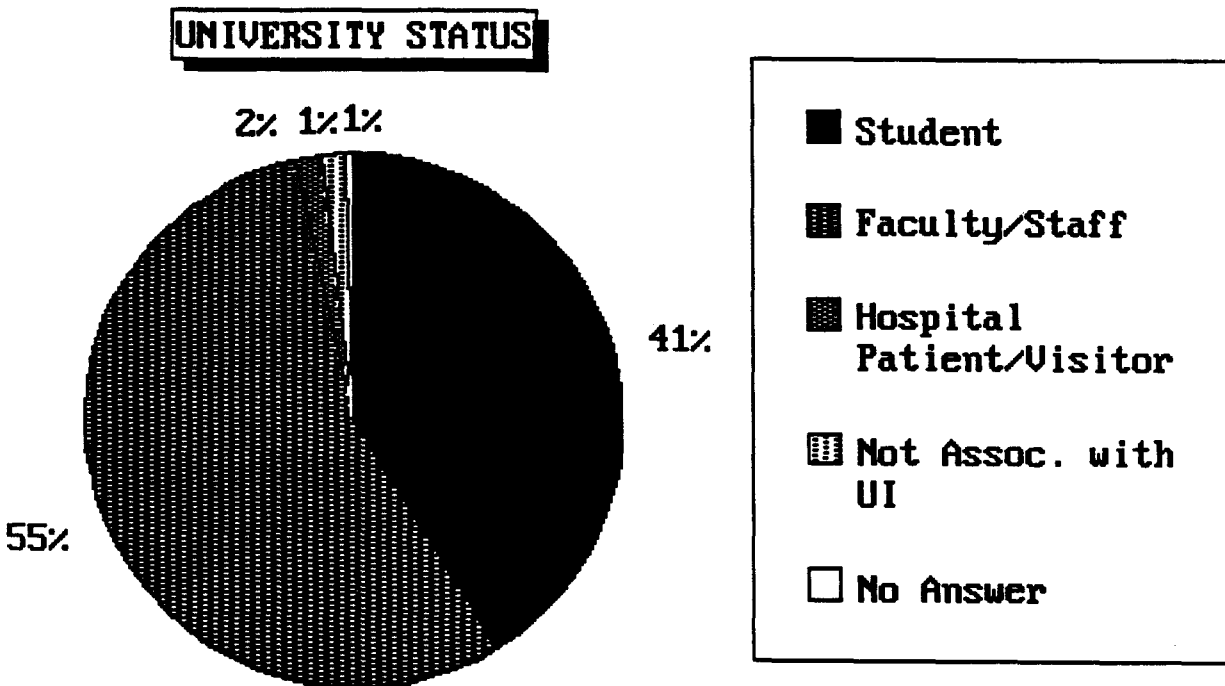
The status of hospital users was comparable to users in the rest of the survey. Ninety-six percent of hospital users were students or faculty/staff, while in the survey as a whole the responses were 95% Pentacrest and 91% Oakdale.

TRIP PURPOSE

6% 16% 2% 2% 15% 45% 11% 3%

Legend:
- Home, off-campus
- Home, on-campus
- Home, Oakdale
- Class
- Shopping
- Medical
- Work
- Other
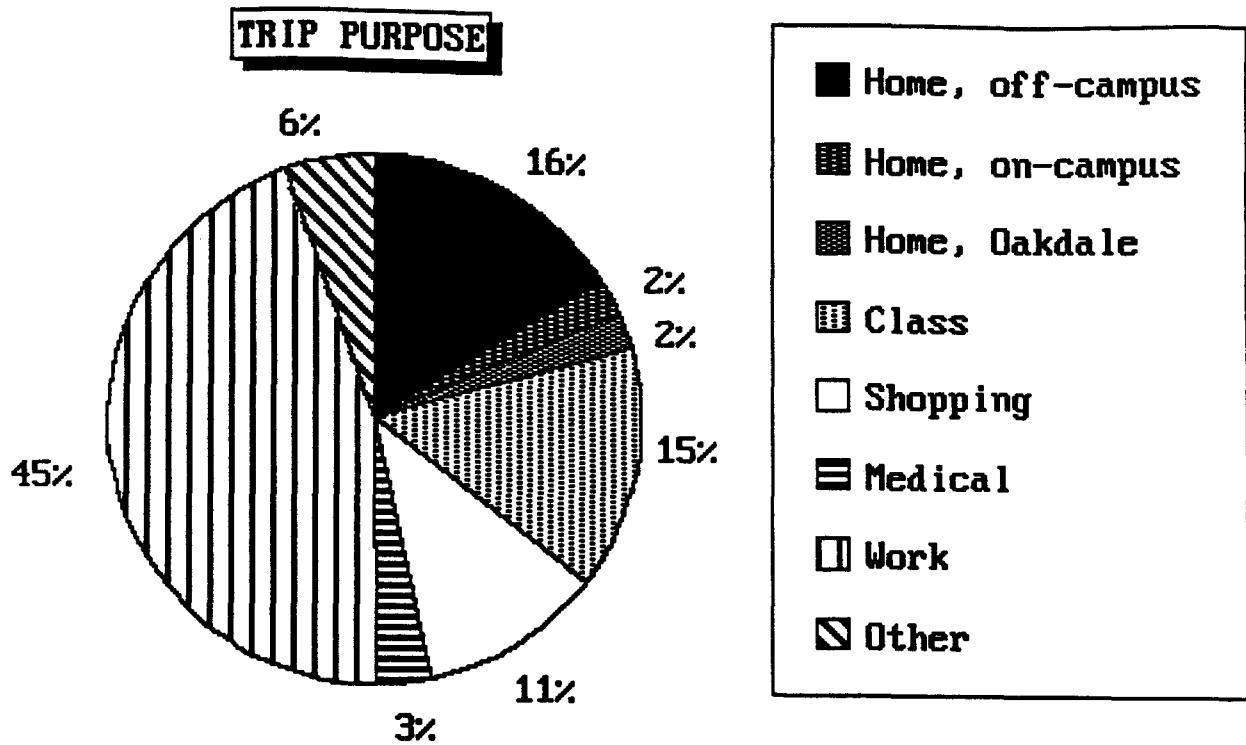
The major trip purpose of hospital users was "work" (45%).

Time of Day Usage

Time of Day	Frequency	Percent
6:00 a.m. - 8:59 a.m.	83	23
9:00 a.m. - 11:59 a.m.	92	26
12:00 noon - 2:59 p.m.	97	27
3:00 p.m. - 5:59 p.m.	85	24
6:00 p.m. - 8:59 p.m.	2	1
Total	359	100

Time-of-day usage of CAMBUS by hospital users is spread evenly throughout the day with the exception of trips after 6:00 p.m. It should be noted that the Pentacrest route ends at 6:09 p.m. and there were only two responses from the evening Oakdale route.

16

PARKING LOT USER ANALYSIS

An analysis of information about parking lot usage on the Pentacrest and Oakdale routes was requested by CAMBUS staff. There were 34 respondents (4%) who indicated that their trip either began or ended at a University parking lot.

University Parking Lot Usage

Lot Named	Frequency	Percent
Oakdale	13	38
Arena Lot	8	23
Lot 30	2	6
Union Ramp	1	3
Union/Lot 60	1	3
Lot 70	1	3
Lot 46	1	3
Lot 11	1	3
Hancher	1	3
Old Capitol	1	3
449 N. Parklawn	1	3
Psych	1	3
None given	2	6
Total	34	100

Parking lot usage may be understated due to the high number of respondents who answered "Other-Home" as their origin or destination. There were 250 respondents who indicated "Home" was their origin or destination, and presumably some of these users are also utilizing the University parking system.

SURVEY COMMENTS

Respondents were given the opportunity to add additional comments on any aspect of the CAMBUS system. There were 207 comments on the Pentacrest route and 103 comments on the Oakdale route. The comments were tabulated separately for each route due to the different areas served and characteristics of these two routes. Comments with a frequency of at least three are listed.

Pentacrest Route

		Frequency
1.	CAMBUS is a valued and essential service.	55
2.	The Pentacrest route has poor schedule reliability.	53
3.	There should be more night and/or weekend service.	16
4.	There should be a stop by EPB.	14
5.	Need service to additional off-campus areas (where high concentrations of students live).	12
6.	Drivers drive too fast.	10
7.	Need more peak hour service.	7
8.	Red and Blue route schedule is unreliable.	6
9.	Drivers start before everyone is seated.	5
9.	Need more service from commuter lots to hospital area.	5
9.	Should have 20 minute service so buses stay on schedule.	5
12.	Should have 10 minute service on Pentacrest route.	4
12.	Need more service to/from Mayflower.	4
12.	Drivers are good.	4
12.	Need better bus stops (waiting areas).	4
16.	Buses are too crowded.	3

Oakdale Route

		Frequency
1.	Schedule is not reliable.	32
2.	Would like weekend and additional late service.	18
3.	Appreciate the Oakdale service.	14
4.	Drivers drive too fast.	6
5.	Buses should turn around at top of hill again.	5
5.	Heat and air conditioning should work on buses.	5
7.	Drivers' radios are too loud.	4
7.	Most drivers drive well.	4
9.	Drivers run yellow lights to keep on schedule.	3
9.	Pentacrest route has too many stops.	3
9.	Buses are dirty.	3
9.	Need more frequent service on Oakdale route.	3
9.	Please keep the Oakdale service.	3

SUMMARY

-- The predominant trip purpose of riders on the Pentacrest and Oakdale routes is to get to class or work.

-- The major origins for persons using the Pentacrest route are University Hospital and other University buildings.

-- The major origin for persons using the Oakdale route is Oakdale campus.

-- A large percentage of users, 25% on the Pentacrest and 31% on the Oakdale routes, indicated their origin was home.

-- Most persons indicated their destination was a University building on the Pentacrest route, and University Hospital on the Oakdale route.

-- Ninety-five percent (95%) of the respondents were students or faculty/staff.

-- The user perception of CAMBUS on these two routes with regard to frequency of bus service, driver courtesy, location of bus stops, and safety was favorable.

-- Schedule reliability was the only aspect of CAMBUS that received a low rating on both routes. In addition, there were 85 comments regarding schedule unreliability.

-- The hospital user analysis indicated most riders in this group use these two routes to get to work. Time of day usage by this group is split evenly throughout the day.

-- The parking lot user analysis indicates a low percentage of riders are using University lots in conjunction with trips on these two routes. The results may be understated due to a large number of persons responding "home" to the origination and destination questions.

APPENDIX

Question 1: What is the primary purpose of your trip?

OVERALL RESPONSE

	Pentacrest		Oakdale	
	Frequency	%	Frequency	%
Home, off-campus	119	17	30	16.8
Home, on-campus	34	5	3	1.7
Home, Oakdale	5	1	14	7.9
Class	209	30	34	19.0
Shopping	66	9	1	0.6
Medical	31	4	5	2.8
Work	200	28	90	50.6
Other	42	6	1	0.6
Total	706	100	178	100.0

Question 2: Where did you come from before getting on this bus?

OVERALL RESPONSE

	Pentacrest		Oakdale	
	Frequency	%	Frequency	%
UI Hospital	183	26	25	14.0
VA Hospital	24	3	2	1.1
UI Parking Lot	8	1	10	5.6
Other UI Building	284	40	11	6.2
Oakdale Campus	8	1	53	29.8
Another bus	28	4	22	12.4
Other	171	25	55	30.9
Total	706	100	178	100.0

Trip Origin - Other UI Building, Pentacrest Route

	Pentacrest	
	Frequency	%
UI Hospital area	133	47
Pentacrest area	94	33
Library/IMU area	26	9
Other	23	8
E. Side Dorm/Mayflower	8	3
Total	284	100

Trip Origin - Other

	Pentacrest			Oakdale	
	Frequency	%		Frequency	%
Home	120	70.1	Home	31	56.4
Downtown	47	27.5	N. Liberty	16	29.1
Pentacrest	2	1.2	Cedar Rapids	4	7.3
Quad	1	0.6	Solon	1	1.8
Other	1	0.6	Downtown	1	1.8
Total	171	100.0	Other	2	3.6
				55	100.0

Question 3: Where will you go just after getting off this bus?

OVERALL RESPONSE

	Pentacrest		Oakdale	
	Frequency	%	Frequency	%
UI Hospital	124	17.5	51	28.7
VA Hospital	23	3.2	5	2.8
UI Parking Lot	6	0.9	10	5.6
Other UI Building	295	41.8	19	10.7
Oakdale Campus	2	0.3	41	23.0
Another bus	42	6.0	35	19.7
Other	213	30.2	17	9.5
No Response	1	0.1	0	0.0
Total	706	100.0	178	100.0

Question 4: What is your University status?

OVERALL RESPONSE

	Pentacrest		Oakdale	
	Frequency	%	Frequency	%
Student	456	64.6	60	33.7
Faculty/staff	218	30.9	101	56.8
Hospital Patient or Visitor	10	1.4	2	1.1
Not Associated with University	18	2.6	15	8.4
No answer	4	0.5	0	0.0
Total	706	100.0	178	100.0

Question 5: How do you rate the following aspects of CAMBUS?

a. Frequency of Buses

	Pentacrest		Oakdale	
	Frequency	%	Frequency	%
Very good	262	37	44	25
Good	321	46	96	54
Fair	91	13	27	15
Poor	15	2	8	4
Very Poor	3	1	1	1
No answer	14	2	2	1
Total	706	100	178	100

b. Schedule Reliability

	Pentacrest		Oakdale	
	Frequency	%	Frequency	%
Very good	85	12.0	6	3.0
Good	239	34.0	58	33.0
Fair	249	35.0	76	43.0
Poor	78	11.0	23	13.0
Very Poor	33	5.0	13	7.0
No answer	22	3.0	2	1.0
Total	706	100.0	178	100.0

c. Driver Courtesy

	Pentacrest		Oakdale	
	Frequency	%	Frequency	%
Very Good	268	38	50	28
Good	344	49	99	56
Fair	66	9	24	13
Poor	2	1	1	1
Very Poor	0	0	0	0
No answer	26	3	4	2
Total	706	100	178	100

d. Location of Bus Stops

	Pentacrest		Oakdale	
	Frequency	%	Frequency	%
Very good	234	33	40	23
Good	376	53	107	60
Fair	61	9	26	15
Poor	7	1	2	1
Very Poor	4	1	1	1
No answer	24	3	2	1
Total	706	100	178	100

e. Safety

	Pentacrest		Oakdale	
	Frequency	%	Frequency	%
Very good	214	30	32	18
Good	367	52	110	62
Fair	87	12	29	16
Poor	10	1	2	1
Very Poor	1	1	1	1
No answer	27	4	4	2
Total	706	100	178	100

Hospital User Analysis

University Status

	Frequency	Percent
Student	148	41
Faculty/Staff	199	55
Hospital Patient or Visitors	6	2
Not Associated with the University	5	1
No Answer	1	1
Total	359	100

Trip Purpose

	Frequency	Percent
Home, off-campus	58	16
Home, on-campus	8	2
Home, Oakdale	8	2
Class	54	15
Shopping	39	11
Medical	12	3
Work	161	45
Other	19	6
Total	359	100