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# IOWA CITY URBANIZED AREA

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# TRANSIT PLAN

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JULY 1988

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Johnson County Council of Governments  
410 E. Washington St. Iowa City, Iowa 52240

# **TRANSIT PLAN FOR THE IOWA CITY URBANIZED AREA**

**Coralville Transit  
Iowa City Transit  
University of Iowa CAMBUS  
Johnson County SEATS**

**July 1988**

**Prepared by:**

**The Johnson County Council of Governments  
Transportation Planning Division**

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Kevin L. Doyle, Assistant Transportation Planner  
Barbara Coffey, Graphics**

**Preparation of this report was financed in part through  
a Federal grant by the Urban Mass Transportation  
Administration under Section 8 of the UMT Act, as amended.**

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Transit Planning

## Transit Planning

Transit planning in the Iowa City Urbanized Area is conducted by the JCCOG Transportation Planning Division. On January 12, 1982, the Governor of Iowa designated JCCOG as the Metropolitan Planning Organization (MPO) for the Iowa City Urbanized Area. Local officials organized the JCCOG Board of Directors to conform with federal requirements for an MPO. Six governmental bodies have voting representatives on the JCCOG Board of Directors. The Iowa Department of Transportation is represented by a non-voting member. The following JCCOG member agencies are represented on the JCCOG Board of Directors:

City of Iowa City	-	5 representatives
City of Coralville	-	2 representatives
Johnson County	-	2 representatives
University of Iowa	-	1 representative
City of University Heights	-	1 representative
City of North Liberty	-	1 representative
Total	-	12 representatives

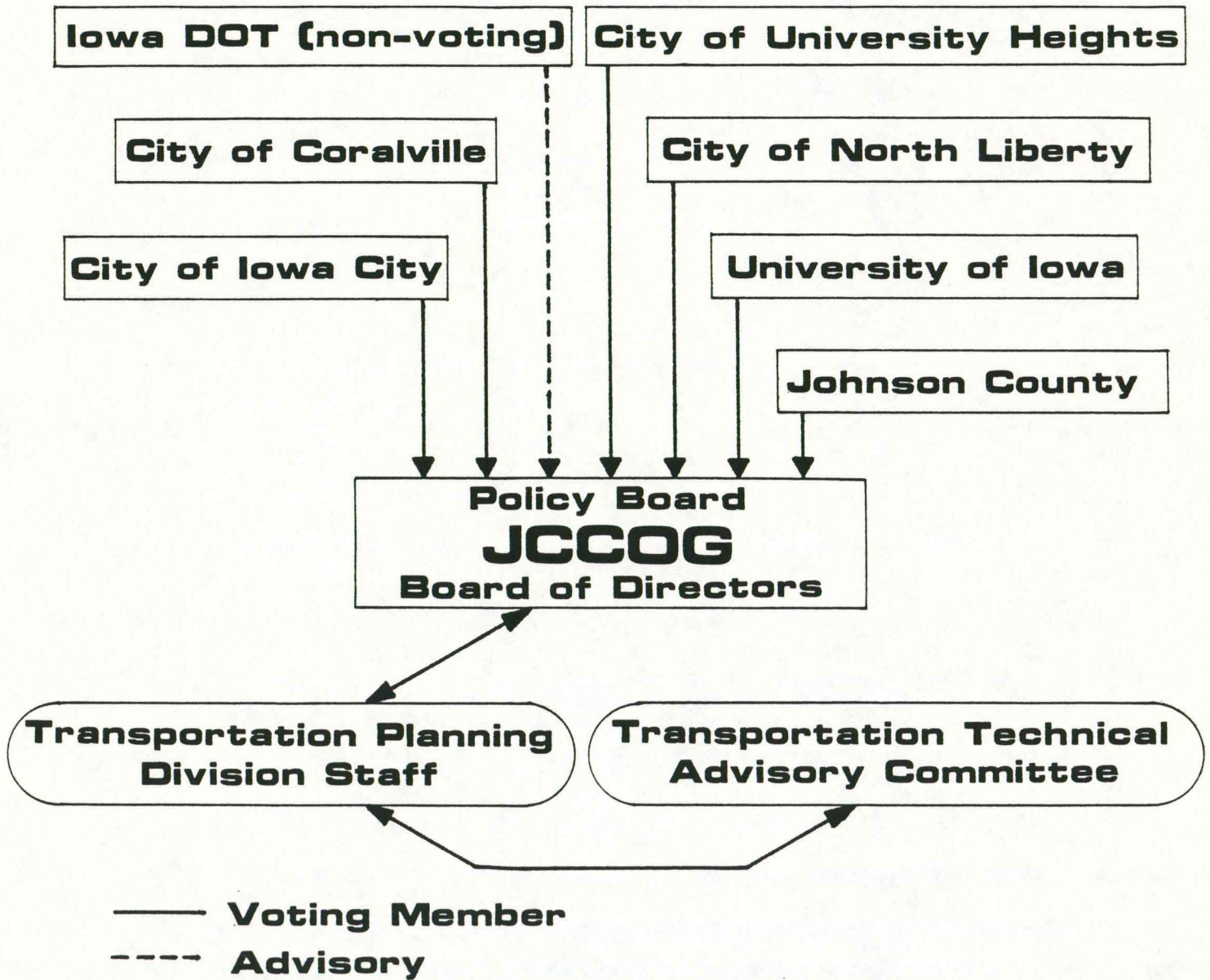
Iowa Department of Transportation - 1 representative (non-voting)

The number of voting representatives is roughly proportional to population size. University Heights and North Liberty representatives each have half a vote on the Board of Directors.

The JCCOG Transportation Planning Division consists of two full-time planners and two planning interns. Additional support is provided by part-time graphics, secretarial and word processing staff.

In addition to the Board of Directors and Transportation Planning Division staff, a Transportation Technical Advisory Committee (TAC) has also been established. This committee is composed of area transportation professionals and representatives of State and Federal Departments of Transportation. The TAC functions to aid the Transportation Planning Division staff in addressing transportation problems, developing solutions, and making recommendations to the Board of Directors. The transit members of the TAC occasionally form a transit subcommittee to address issues pertaining solely to transit. The graphic on the following page illustrates the relationship between the various functions of the MPO.

# JCCOG Metropolitan Planning Organization



~~Work activity of the Transportation Planning Division is split approximately in half between transit and street & highway planning activities. Approximately half of the transit planning budget is supported by a grant from the UMTA Section 8 program. The remaining funding for transit planning comes from local tax support. Transit planning activities can be separated into three categories:~~

1. Production of planning documents necessary to implement the federally-mandated 3C planning process.
2. Individual short- and long-range transit planning projects requested by JCCOG member agencies.
3. Planning activities associated with state and federal transit grant applications.

Transit planning documents produced within the last two years and available from the JCCOG Transportation Planning Division include:

1. 1986 Iowa City Transit Roadcall Summary Report.
2. FY87 Private Enterprise Participation Policy.
3. FY87 Small Urbanized Area Transportation Planning Case Study Update Report.
4. FY87 Transit Capital Plan for the Iowa City Urbanized Area.
5. 1987 University Heights Transit Ridership Survey.
6. 1987 Iowa City Transit On-board Survey.
7. 1988 Iowa City Transit On-board Survey.
8. 1987 Coralville Transit Study.
9. 1988 Iowa City Transit Tripper Marketing Survey.
10. 1988 CAMBUS Pentacrest-Oakdale Survey.
11. FY88 and FY89 Transportation Improvement Programs.
12. FY86 and FY87 Section 15 Annual Reports.
13. Quarterly Transit On-time Performance Studies.

The JCCOG Transportation Improvement Program (TIP) is the annual programming document for operating and capital projects of Coralville Transit, Iowa City Transit, and CAMBUS. It contains specific information regarding projects programmed for the following year, and generalized information on projects planned for the four succeeding years.

**East Central Iowa Council of Governments.** Transit planning for Johnson County SEATS is provided by the East Central Iowa Council of Governments (ECICOG). ECICOG administers the six-county Region 10 Transit System. Each of the six counties (Benton, Linn, Jones, Iowa, Johnson, Washington) has a van system similar to Johnson County SEATS, but varying in size according to population. The ECICOG Regional Transit Development Program is the annual planning and programming document for the Region 10 Transit System.

Johnson County's membership to ECICOG is funded by JCCOG. ECICOG Board members from Johnson County are selected by JCCOG.

Description of Current Service



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## Description of Current Service

### Coralville Transit

Coralville Transit operates four routes on weekdays between 6:00 a.m. and 6:30 p.m., and one route evenings until 11:30 p.m. An additional peak-hour tripper route provides service to the core area of Coralville during the a.m. and p.m. rush hours. The system route map in the back pocket of this report shows the Coralville Transit route network. The Lantern Park and Tenth Street routes operate with half-hour headways except during midday when headways are one hour. The Express and First Avenue routes operate hourly in the a.m. and p.m. peak, with no midday service. Saturday service is provided hourly on one route that serves the Lantern Park/10th Street service area from 7:00 a.m. to 6:15 p.m.

Coralville Transit operates six buses during weekday peak periods, three buses off-peak, and one bus evenings and Saturdays. No service is offered on Sunday. The tripper route does not operate during University of Iowa summer and interim periods. All Coralville Transit routes are oriented to the Downtown Iowa City Transit Interchange.

The base fare on Coralville Transit remains at the level established on April 1, 1981: 50 cents. Children under five, accompanied by an adult, ride for free. An unlimited-ride monthly pass is offered for \$18, and a 20-ride punch pass for \$10. Saturdays and evenings persons 15 and under are eligible for a 25 cent youth fare. Elderly and handicapped persons and Medicare recipients can ride free at any time. Free transfers are available and may be used on Iowa City Transit. The purchase of \$10 or more from any of the merchants participating in the Bus and Shop Program entitles the purchaser to one free bus ride any time of day.

### Iowa City Transit

Iowa City Transit provides service on 13 regular routes. The system route map in the back pocket of this report shows the network of existing Iowa City Transit routes. All routes, except for Seventh Avenue and Wardway, operate daily every 30 minutes between 6:30 a.m.-9:30 a.m. and 3:00 p.m.-6:30 p.m. and hourly between 9:00 a.m.-3:00 p.m. The Seventh Avenue and

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Wardway routes operate hourly between 6:45 a.m.-6:45 p.m. The Hawkeye Express provides extra peak-hour service to the University of Iowa married student housing complex. Evening service is provided to the same service area using combined routes, hourly, from 6:30 p.m.-10:30 p.m. There is no evening service provided by Iowa City Transit on the Hawkeye route; after 6:15 p.m., this route is operated by University of Iowa CAMBUS. Saturday service operates hourly all day with service ending at 7:00 p.m. There is no fixed route service on Sundays.

Iowa City Transit's route structure was redesigned in 1979 and has remained basically unchanged since that time. There was one major change implemented in July 1987 when the Manville Heights and North Dubuque routes were combined into one route that serves both areas of the city.

During peak periods Iowa City Transit operates 14 buses. Seven are operated weekdays off-peak and all day Saturday. During evening hours five buses are in service. The Downtown Iowa City Transit interchange is the center of Iowa City Transit's operation. All regular routes arrive and depart the interchange on the quarter of the hour, allowing for coordinated transfer between buses.

In July 1985, Iowa City Transit raised the base fare of 40 cents to the existing rate of 50 cents. This was the first fare increase since January 1983 when the fare was raised from 35 cents to 40 cents. The existing fare structure is as follows: 50 cents base fare, \$18 unlimited ride monthly pass, and \$5 ten-ride ticket strip. There is no reduced fare for children except for those under five who may ride free. Elderly persons may ride during off-peak hours and all day Saturday for 25 cents. The handicapped and low-income elderly may ride for free during off-peak hours. The purchase of \$10 or more from any merchant participating in the Bus and Shop Program entitles the purchaser to one free ride any time of the day. Free transfers are available and may be used on Coralville Transit.

#### University of Iowa CAMBUS

CAMBUS provides service on eleven routes Monday through Friday, and three routes Saturday and Sunday during the academic year. CAMBUS is a free-fare service designed to facilitate circulation throughout the University campus. Although designed primarily to serve University students, faculty and staff, CAMBUS is also open to the general public.

CAMBUS operates three separate levels of service throughout the year: **academic year service** is the highest level of service, **summer service** is approximately 70% of academic year service, and **interim service** is approximately 55% of academic year service. Differences in levels of

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service are in the amount of service, not in the areas served. Headways are reduced during summer and interim, when classes are not being held, but coverage area remains approximately the same during all three periods.

The primary routes, Red and Blue, operate in nearly identical clockwise and counter-clockwise loops which serve the dormitories, University Hospitals, most class buildings, downtown Iowa City, and the Hancher Auditorium parking lot. The Red, Blue and Hawkeye routes are the only routes which operate on Saturday and Sunday, for 28 weeks per year. The other routes are designed for specific functions: providing service to Oakdale Campus, providing service to dormitories, providing a shuttle between main campus and the hospital area, and night service to Mayflower and Hawkeye Apartments. Refer to the system map in the back of this report for a diagram of the CAMBUS system.

During the academic year CAMBUS operates 14 buses during daytime hours, 7 buses between 6:00 p.m. and 9:00 p.m., and 4 buses between 9:00 p.m. and 12:30 a.m. Weekend service on the Red and Blue routes operates between noon and midnight with four buses.

CAMBUS system also operates a special paratransit system, Bionic Bus. Similar to the fixed route system, it is intended for University students, faculty and staff, but is open to the public. The Bionic Bus system operates lift-equipped small buses on a demand responsive basis. Service hours are 7:00 a.m.-12:00 a.m. on weekdays and 11:30 a.m.-6:00 p.m. on Saturday and Sunday. A reduced level of service is provided during summer and interim periods.

### Johnson County SEATS

Johnson County SEATS is a demand responsive paratransit service providing transportation to elderly and handicapped residents of Johnson County. Service is broken into two components: **urban area service** and **rural service**. No distinction is made between urban and rural trips for purposes of vehicle assignment.

**Urban area service** is provided on a contractual basis to the municipalities of Iowa City, Coralville and University Heights. Service is provided Monday-Friday from 7:00 a.m.-6:00 p.m. in Iowa City, and from 8:00 a.m.-5:00 p.m. in Coralville and University Heights. Service is provided Saturdays and Sundays from 8:00 a.m.-2:00 p.m. Iowa City and Coralville also sponsor a supplemental taxi service that is administered by SEATS. This service provides additional service for residents living in Iowa City and Coralville.

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**Rural service** is the remainder of the SEATS operation. Much of this service actually operates within the urbanized area of Johnson County, but is not part of one of the municipality contracts. These services are provided under contract to different organizations such as Systems Unlimited, HACAP, and Heritage Agency on Aging.

SEATS operates in rural areas of Johnson County between 8:30 a.m. and 4:30 p.m., Monday-Friday. Different areas of the County receive service on particular days of the week. The only regularly scheduled trip which goes beyond the boundaries of Johnson County is one trip per month to Cedar Rapids.

The SEATS office is located in the Iowa City-Johnson County Senior Center at 28 South Linn Street, Iowa City. Reservations are made by phone with the SEATS office at least one day in advance of the trip. There is no fare for users of the SEATS system. Suggested donations are \$1 each way except for people travelling to Congregate Meals or out-of-county trips. Congregate Meals donations are 25 cents one-way to the Iowa City site. Suggested donation for out-of-county trips is \$6 round trip.

SEATS vehicles are fueled, cleaned and stored at the Iowa City Transit Building.

Ridership

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## Ridership

The four transit systems in the Iowa City Urbanized Area had a combined ridership of 4,984,557 in FY87. Transit ridership of nearly 5 million in a community of 59,265 is among the highest per capita in the country.

The following sections examine ridership on each of the Iowa City Urbanized Area public transit systems.

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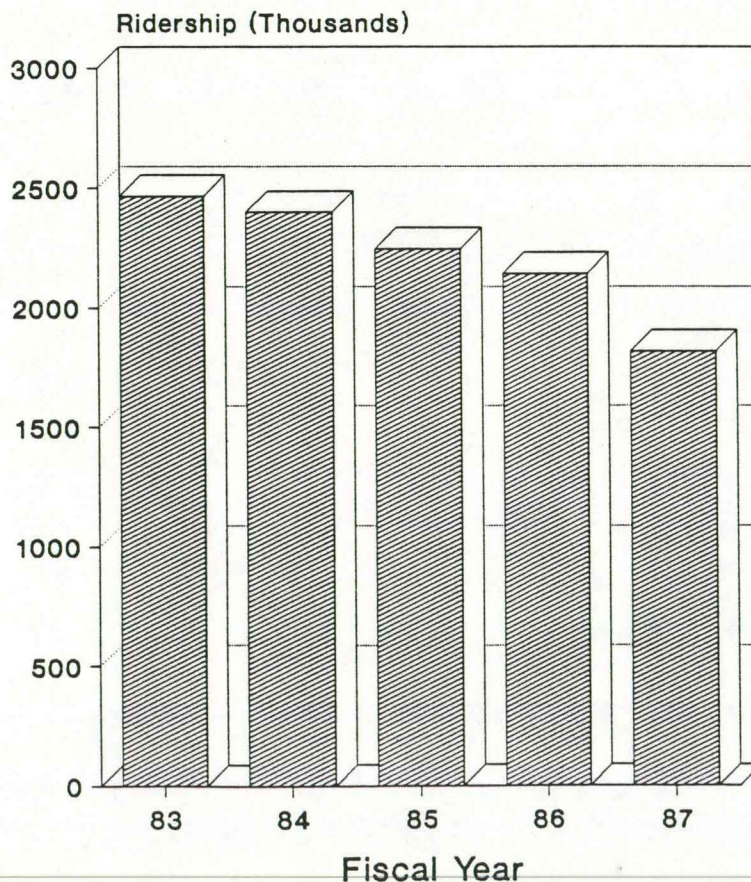
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## Iowa City Transit

Ridership on Iowa City Transit declined 26% for the five year period FY83-87. Although this trend of decreasing ridership is significant, it should be kept in perspective. Declining ridership is due to several factors:

1. The last five years have seen a large growth in the amount of apartments built within walking distance of the CBD/University campus. This, combined with the overall increase in the vacancy rate and the stabilization of rents, has caused a movement of people from outlying apartments to units within walking distance of the CBD.
2. The FY85 fare increase and service reductions implemented in July 1987 reduced ridership.
3. Low fuel prices and elimination of the State vehicle inspection law have added to the perception that it is less expensive to drive and park in the CBD than to use transit.
4. Environmental consciousness has declined in the 80's.

**Ridership  
Iowa City Transit FY83-87**



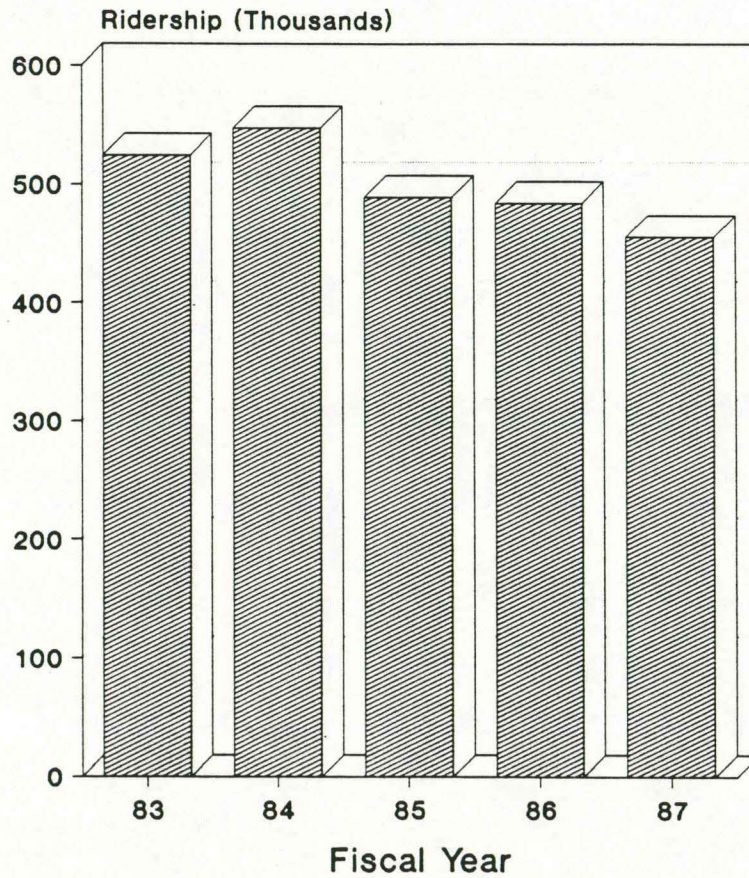
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Coralville Transit

Ridership on Coralville Transit declined 13% for the five year period FY83-87. This decline can be attributed to the same reasons listed in the preceding Iowa City Transit section. Coralville Transit has also implemented service reductions because of declining ridership.

**Ridership  
Coralville Transit FY83-87**



July 1988



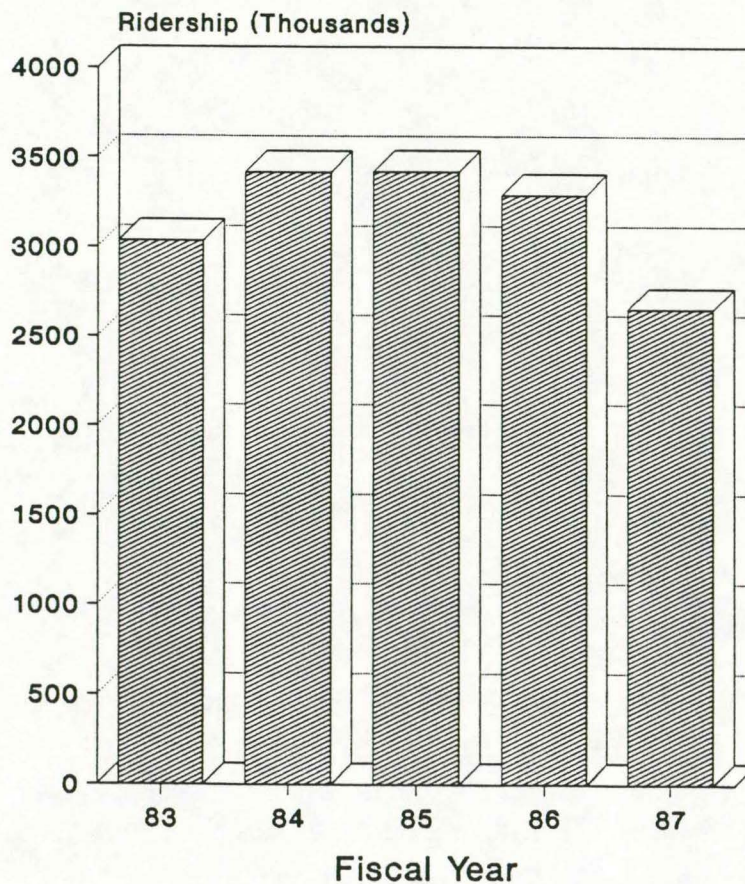
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University of Iowa CAMBUS

CAMBUS ridership has decreased 13% for the five year period FY83-87. Ridership in the first half of FY85 was significantly impacted by the closing of the Iowa Avenue Bridge which devastated ridership on the Pentacrest route. This decline in ridership has not been regained, even after the Iowa Avenue bridge was reopened. FY87 ridership was impaired by road construction on Dubuque Street and Grand Avenue.

Ridership  
CAMBUS FY83-87

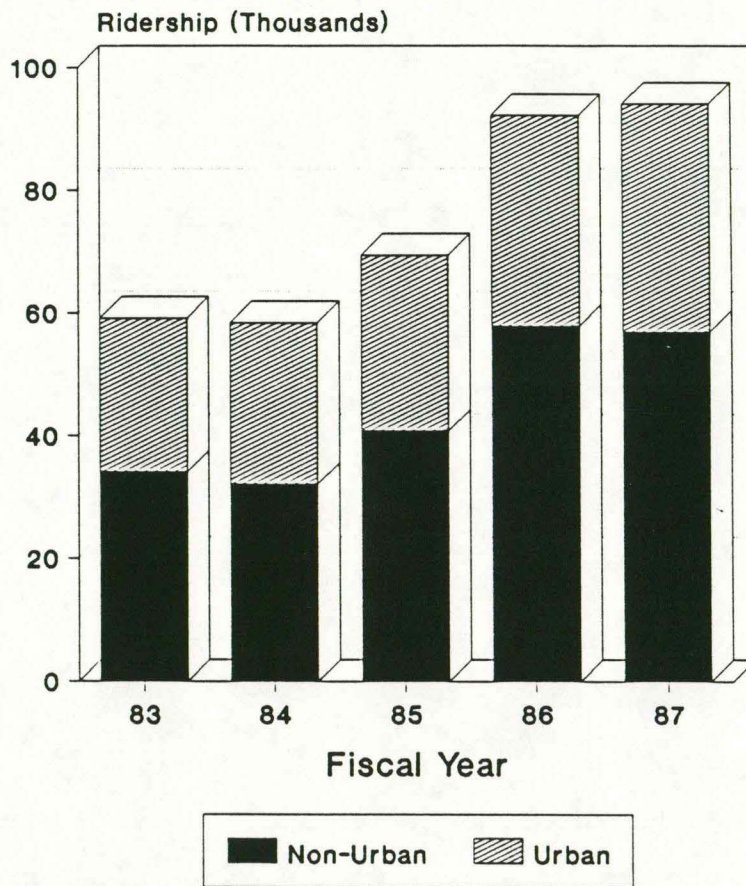


July 1988

Johnson County SEATS

The following table presents Johnson County SEATS ridership figures for FY83-87. Ridership increased 59% during this period. Much of the FY86 and FY87 ridership increase can be attributed to the addition of Systems Unlimited transportation to the SEATS system.

**Ridership  
Johnson County SEATS FY83-87**



July 1988

Revenue and Expenditures

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## Revenue and Expenditures

### Sources of Transit Revenues

Revenue to finance transit operations is provided from federal, state, and local sources. Federal transit operating assistance for Coralville Transit, Iowa City Transit, and University of Iowa CAMBUS comes from the Urban Mass Transportation Administration (UMTA) Section 9 program. The Section 9 program is administered by the Iowa Department of Transportation. Section 9 operating funds are received by the urbanized area in a lump sum and are apportioned among the three systems based on a local formula adopted by the JCCOG Board of Directors. Section 9 operating funds must be matched with local funds on a 50/50 basis. Johnson County SEATS receives federal operating funds from the UMTA Section 18 program through the East Central Iowa Council of Governments.

Information on federal capital funding can be found in the Capital Planning section of this report.

State operating funding has been provided since 1976 through the Iowa DOT State Transit Assistance (STA) program. Funding is available for the 35 recognized public transit systems in Iowa. There are four such systems in the Iowa City Urbanized Area: Coralville Transit, Iowa City Transit, University of Iowa CAMBUS, and Johnson County SEATS. In FY87 funding from the STA program amounted to approximately \$253,000 for Coralville Transit, Iowa City Transit, and CAMBUS.

Two additional funding sources that were administered by the Iowa DOT in FY87 and FY88 were the Exxon and Stripper Well oil overcharge programs. These programs provided funding to public transit systems as a result of fines levied against oil companies due to overcharging for oil during the energy crisis in the late 1970's. Oil overcharge funds were of limited value due to restrictions placed on what types of projects were eligible for funding.

Locally generated funds remain the primary source of operating revenue for transit in the Iowa City Urbanized Area.

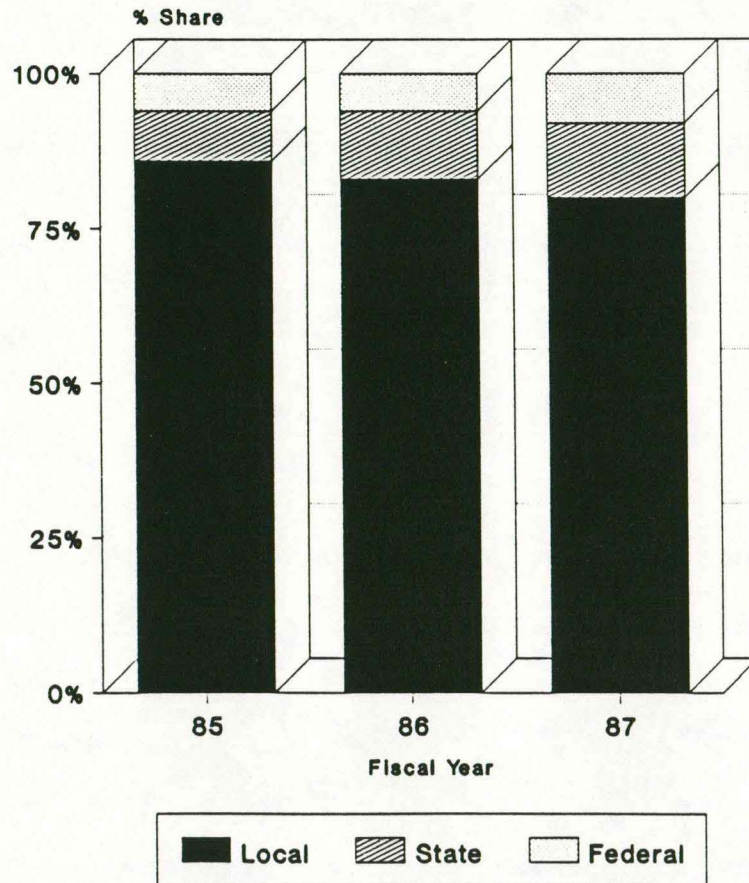
Coralville Transit

The following graphs show the trend in Coralville Transit revenue and expenditures for the three year period FY85-87.

Operating revenue is derived primarily from local sources. Property taxes and fare revenue fund over 75% of the operation. Local revenue declined approximately 5% as a percentage of the total during the period FY85-87.

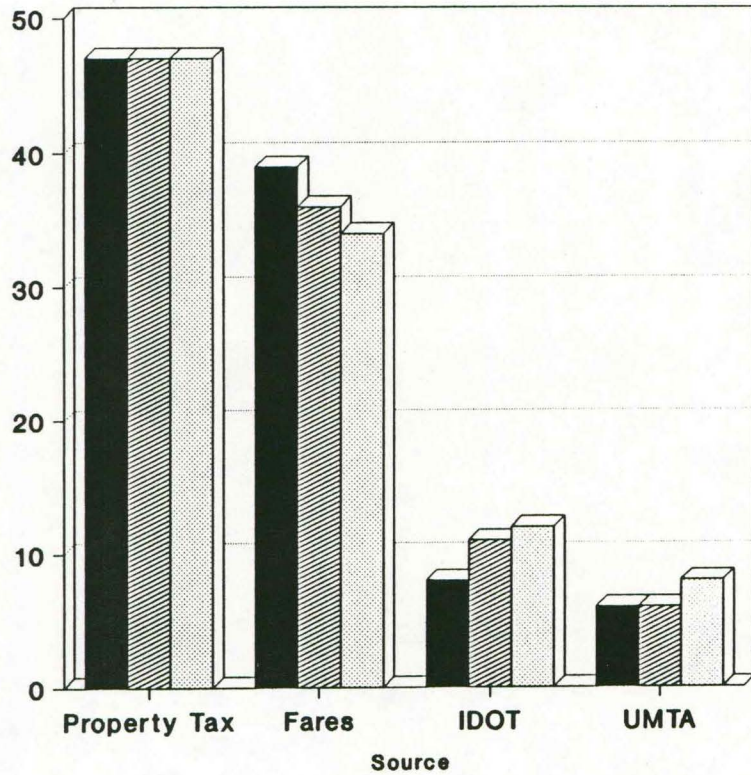
Labor remains the primary Coralville Transit expense category, with over 60% of total expenditures annually.

**Coralville Transit  
% Share of Revenue by Source FY85-87**



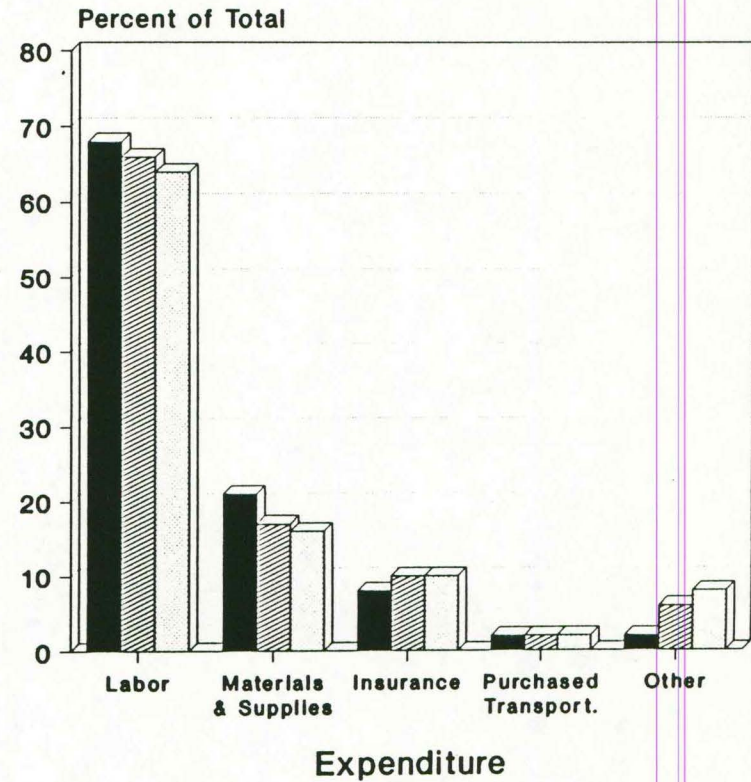
July 1988

**Coralville Transit  
Operating Revenue FY85-87**



July 1988

**Coralville Transit  
Operating Expenditures FY85-FY87**



July 1988

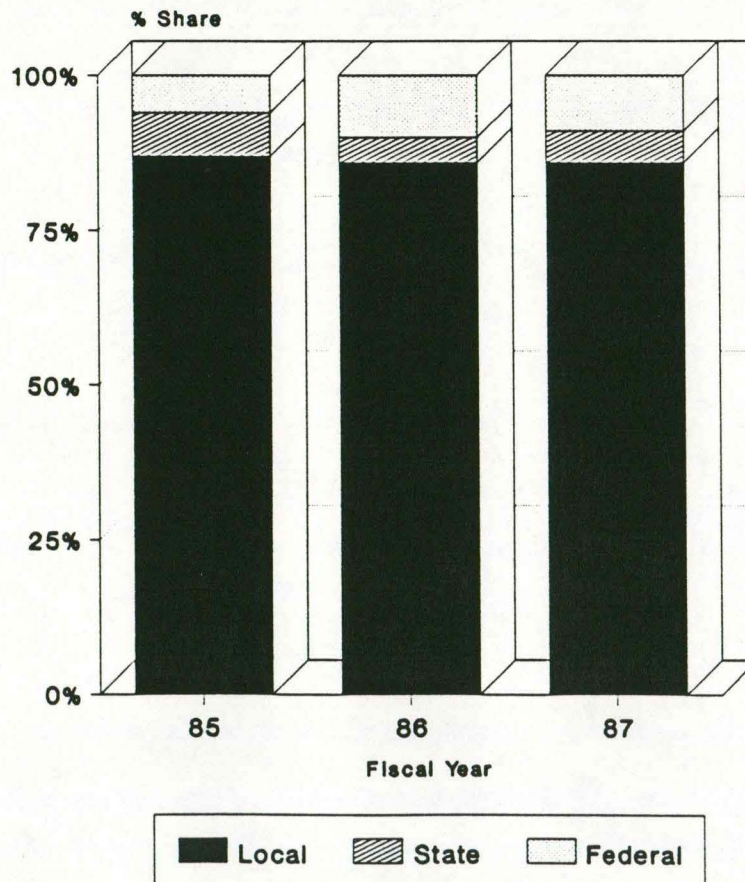
## Iowa City Transit

The following graphs show the trend in Iowa City Transit revenue and expenditures for the three year period FY85-87.

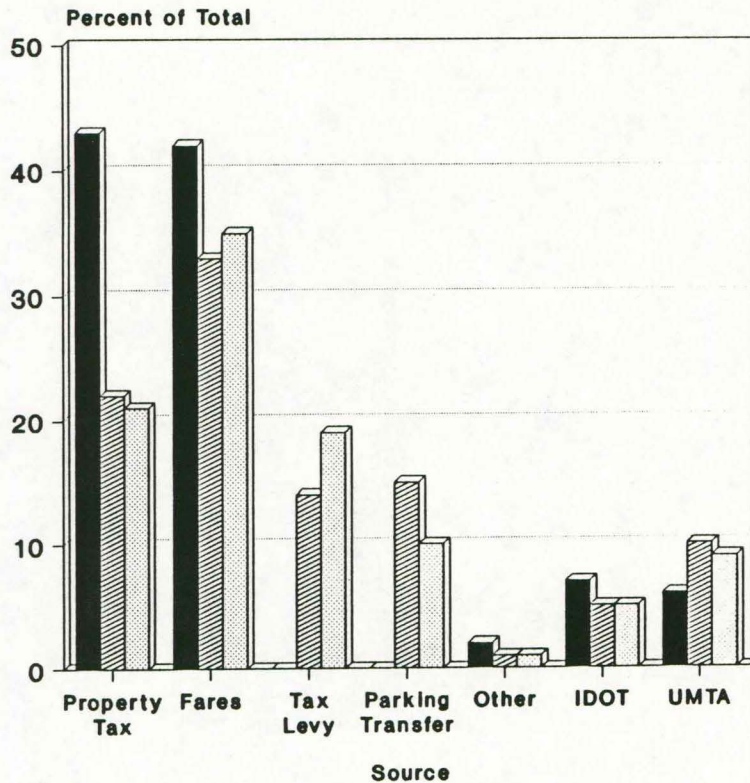
Local revenue sources make up over 80% of the Iowa City Transit operating budget. In FY86 a transit property tax levy was implemented which supplanted a portion of the general property tax budgeted for transit. The transit levy is projected to be increased in FY89 to the maximum permitted by State law, \$.54/\$1000 taxable assessed valuation. Surplus parking system revenue was also dedicated to transit in FY86 and FY87, primarily a result of operating deficits experienced in those years. Fares declined 6% as a percentage of total revenue during FY85-87.

Labor remains the primary Iowa City Transit expense category with nearly 60% of total expenditures annually.

**Iowa City Transit**  
**% Share of Revenue by Source FY85-87**

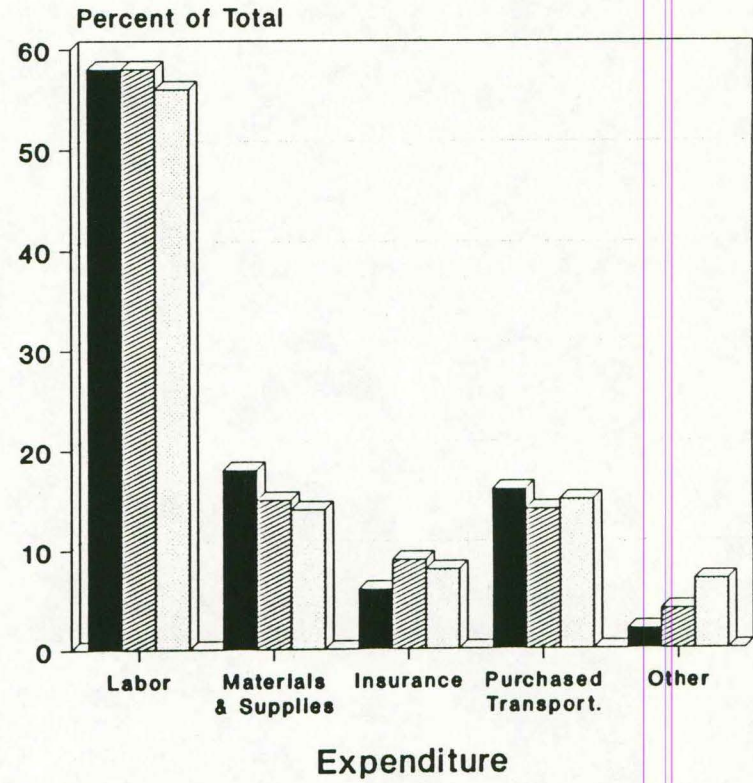


### Iowa City Transit Operating Revenue FY85-87



July 1988

### Iowa City Transit Operating Expenditures FY85-FY87



July 1988



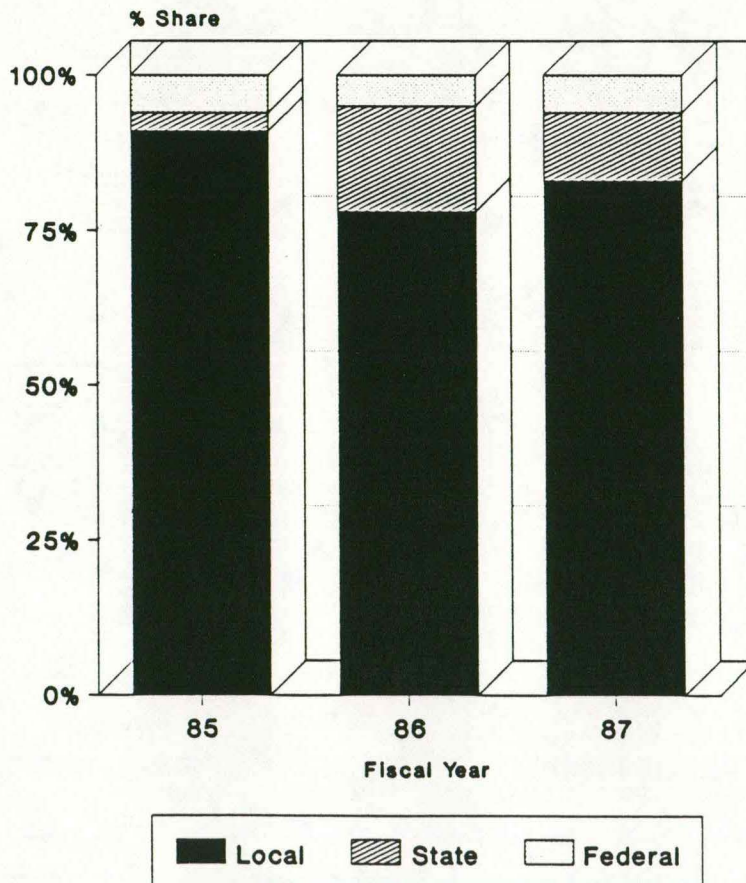
University of Iowa CAMBUS

The following graphs show the trend in CAMBUS revenue and expenditures for the three year period FY85-87.

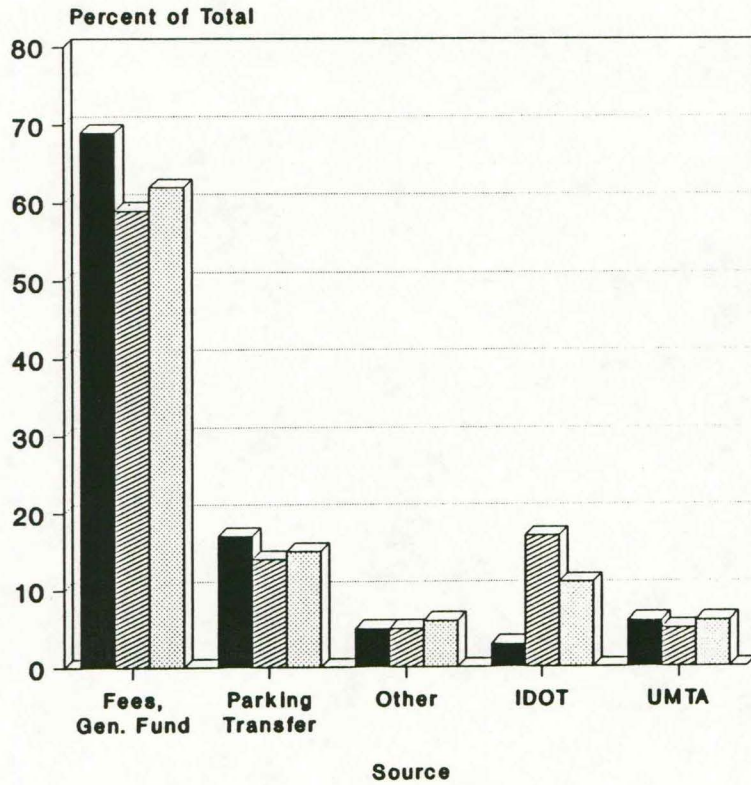
Locally generated revenue is the primary source of CAMBUS operating funding. Unlike the municipal transit systems, CAMBUS does not receive revenue from fares or property taxes. The primary source of revenue for CAMBUS is the mandatory student fee of \$8.27 paid each semester by every student. Iowa DOT State Transit Assistance (STA) increased as a percentage of total revenue in FY86 when CAMBUS became an eligible recipient of STA.

Labor remains the primary CAMBUS expense category, with over 60% of total expenditures annually.

**CAMBUS**  
**% Share of Revenue by Source FY85-87**

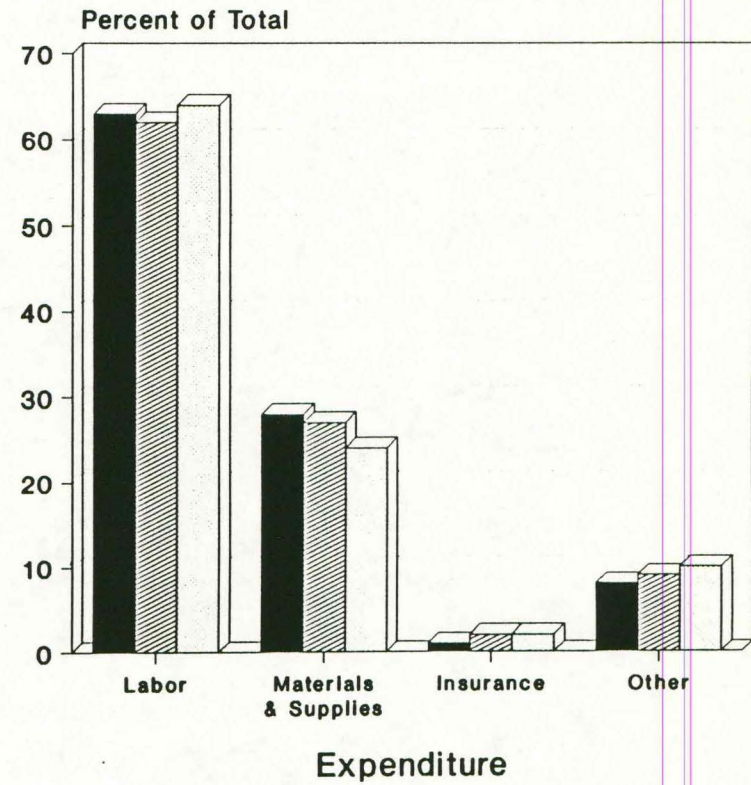


**CAMBUS  
Operating Revenue FY85-87**



July 1988

**CAMBUS  
Operating Expenditures FY85-FY87**



July 1988

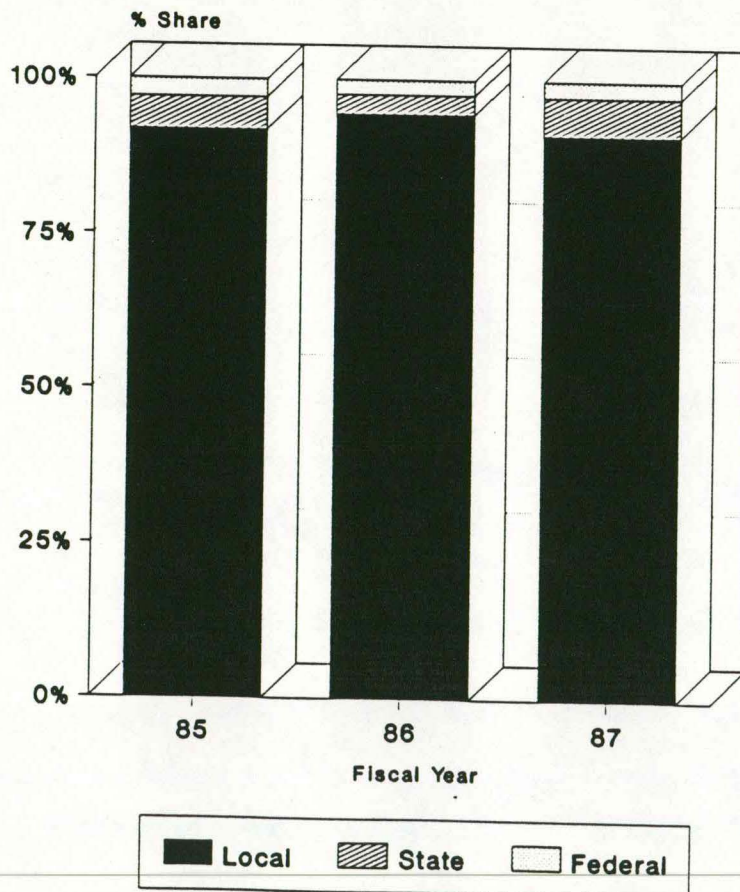
### Johnson County SEATS

The following graphs show the trend in SEATS revenue and expenditures for the three year period FY85-87.

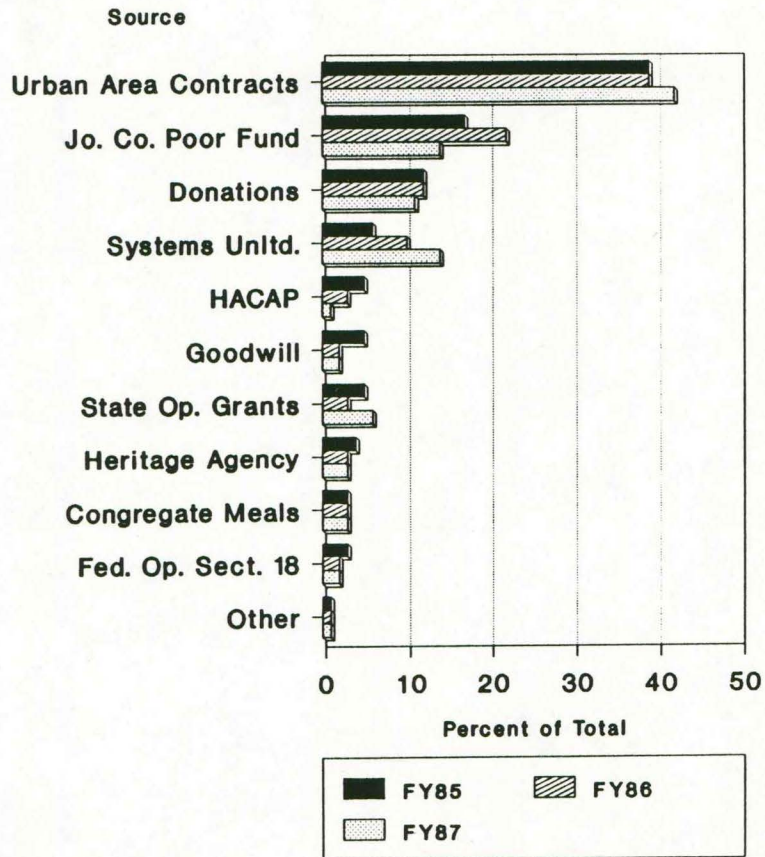
Over 90% of SEATS revenue is derived from local sources. The largest local source is urban area contract revenue which is received from the Cities of Coralville, Iowa City, and University Heights. Funding from Systems Unlimited doubled during the three year period FY85-87.

Labor is by far the primary SEATS expense category, with over 80% of total annual expenditures. Labor increased as a percentage of total annual expenditures during the period FY85-87, due in part to organization by the American Federation of State, County, and Municipal Employees (AFSCME). There is no expense to SEATS for its office space in the Johnson County-Iowa City Senior Center, or for storage of its vehicles in City of Iowa City facilities.

**Johnson County SEATS  
% Share of Revenue by Source FY85-87**

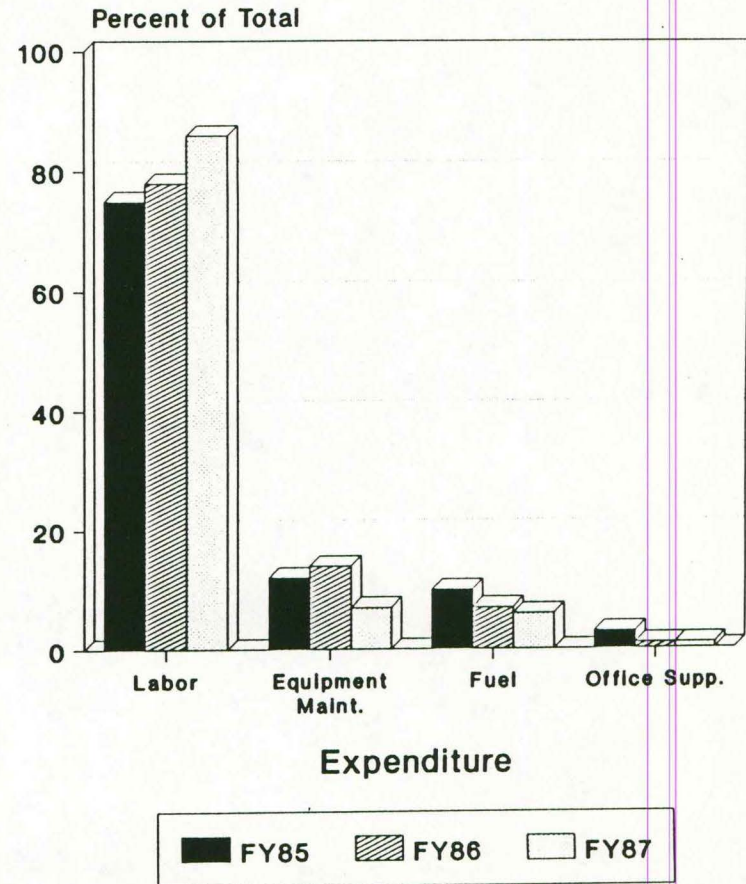


### Johnson County SEATS Operating Revenue FY85-87



July 1988

### Johnson County SEATS Operating Expenditures FY85-FY87



July 1988

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Comparison with Other Iowa Transit Systems

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Comparison with Other Iowa Transit Systems

Thirty-five public transit systems in the state of Iowa are eligible recipients of Iowa DOT State Transit Assistance. Sixteen of these systems are regional paratransit systems which are administered by regional councils of government. Johnson County SEATS is part of the Region 10 transit system administered by the East Central Iowa Council of Governments.

The remaining 19 systems are fixed-route transit systems operating within municipalities. These 19 systems are divided into ten large urban and nine small urban systems. Large urban transit systems are those operating in metropolitan areas of 50,000 population or greater. Small urban systems operate in metropolitan areas of less than 50,000 population. Metropolitan area is defined by the U.S. Census as the area formed by the city limits of all contiguous incorporated places. This designation is used by UMTA to determine eligibility for urbanized area (Section 9) and non-urbanized area (Section 18) transit funding programs.

The following table indicates the split between large urban and small urban Iowa transit systems.

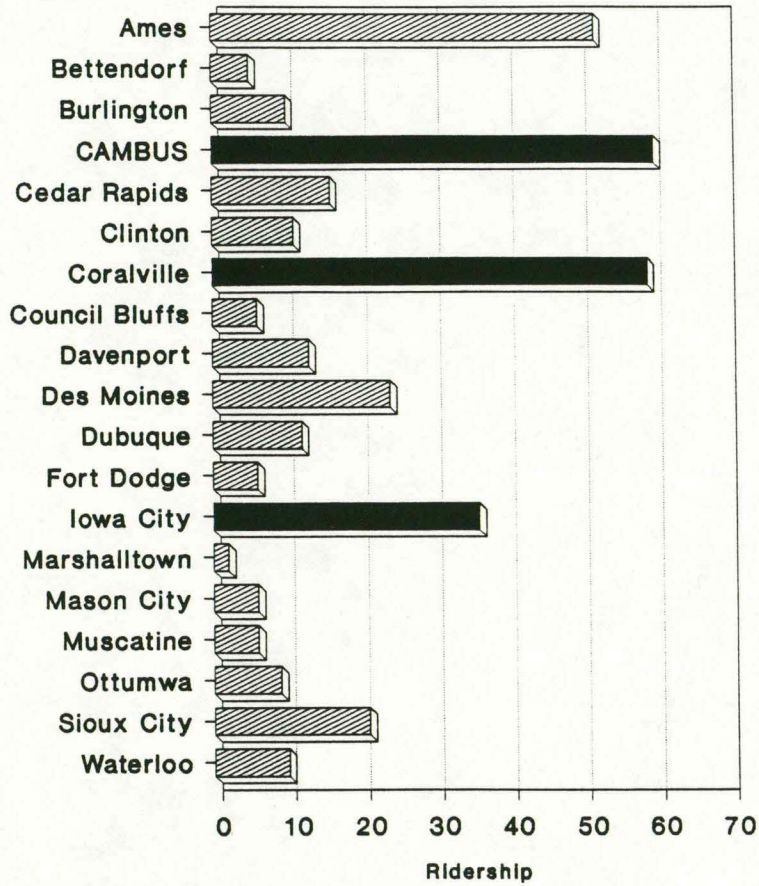
# Iowa Transit Systems

## Large and Small Urban Systems

<u>Large Urban:</u>	1980 Census <u>Population</u>
Bettendorf	27,381
Cedar Rapids	110,243
Coralville	7,687
Council Bluffs	56,449
Davenport	103,264
Des Moines	191,003
Dubuque	62,321
Iowa City	50,508
Sioux City	82,003
Waterloo	75,985
<u>Small Urban:</u>	
Ames	45,775
Burlington	29,529
Clinton	32,828
Fort Dodge	29,423
Marshalltown	26,938
Mason City	30,144
Muscatine	23,467
Ottumwa	27,381

The following five graphs show comparative FY88 performance statistics for the 19 fixed-route Iowa public transit systems. The first three figures are presented in a per capita format. This permits a fair comparison of raw data between cities of varying size. CAMBUS data is divided into the Iowa City population base.

### Ridership Per Capita

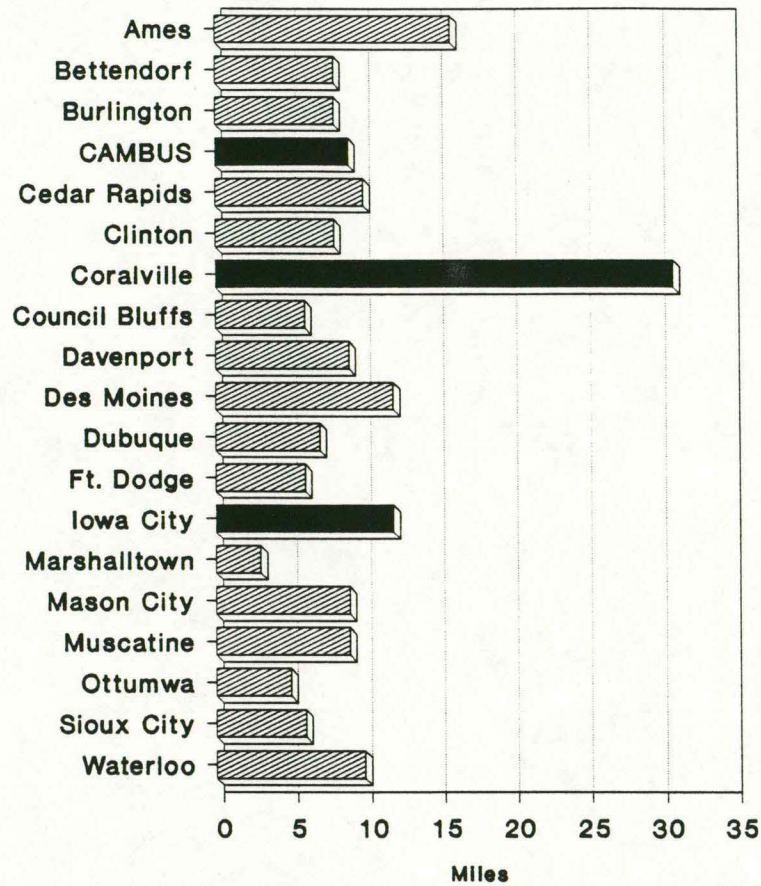


Source: 1988 Iowa DOT TIP

This graph indicates that the two Iowa communities dominated by large state universities (Ames, Iowa City/Coralville) have by far the highest ridership per capita.



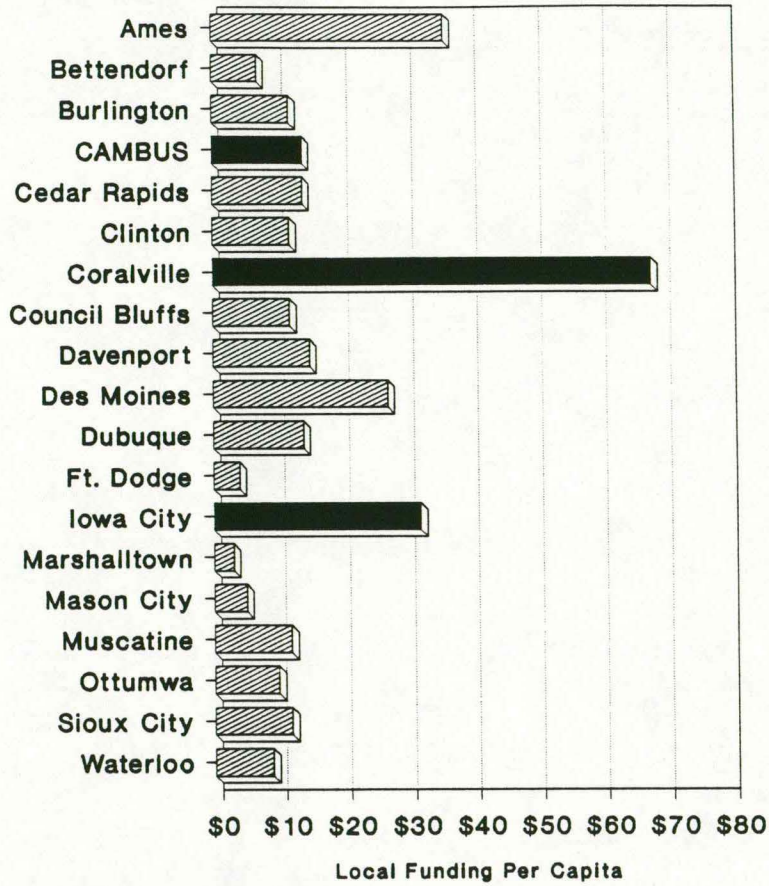
### Miles of Service Per Capita



Source: 1988 Iowa DOT TIP

Coralville Transit has by far the most miles of transit service per capita, nearly double the second highest.

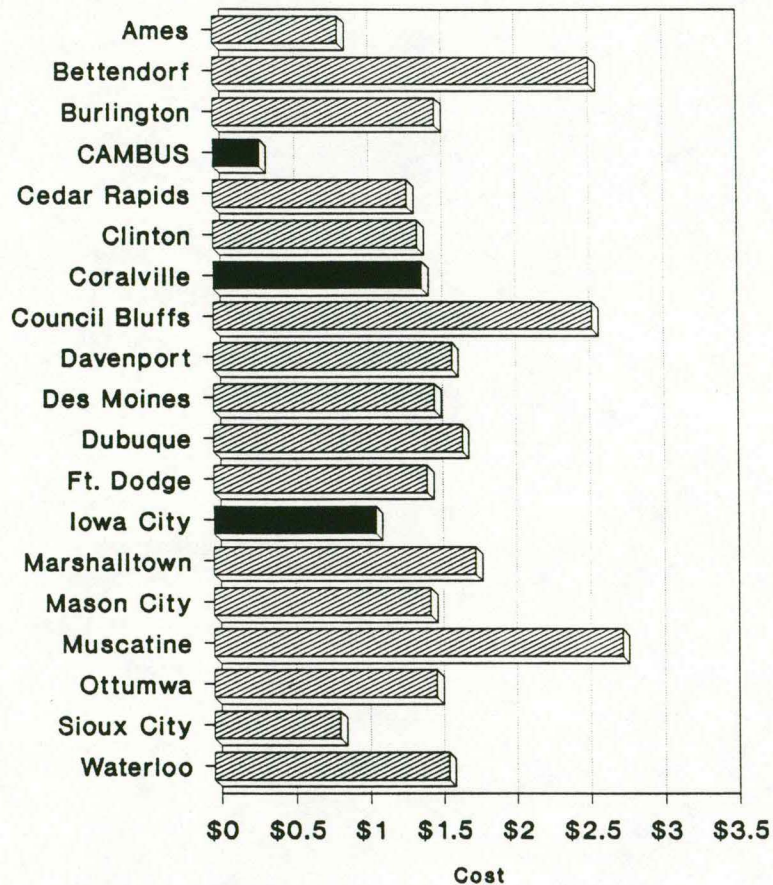
### Local Funding per Capita



Source: 1988 Iowa DOT TIP

Coralville Transit has by far the highest local funding per capita. Iowa City Transit is third highest.

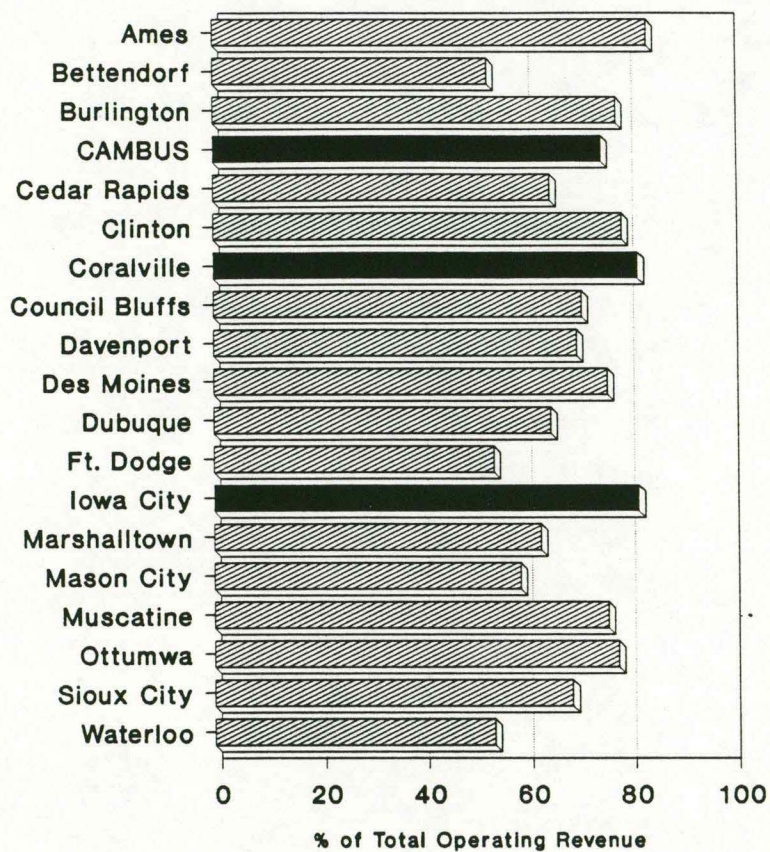
### Cost Per Ride



Source: 1988 Iowa DOT TIP

CAMBUS has by far the lowest cost per ride in the state, reflecting the use of student labor for nearly all personnel positions. Coralville Transit, with low opportunity for economies of scale, is still below the state average cost per ride of \$1.53.

## Local Funding as a Percentage of Total Operating Revenue



Source: 1988 Iowa DOT TIP

This figure shows that transit service in the state of Iowa is predominantly locally funded. Ames, Coralville, and Iowa City have the highest percentages of local funding in the state.

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Performance Statistics

## Summary Table of FY88 Performance Statistics

### Iowa City Transit, Coralville Transit, UI CAMBUS

Performance Factor	Iowa City Transit	Coralville Transit	UI CMBUS
Ridership	1,528,405	437,999	3,099,152
Total Operating Expense	\$1,891,298	\$533,108	\$791,214
Fare Revenue	\$637,378	\$187,372	-0-
Revenue Vehicle Miles	628,030	223,233	451,959
Revenue Vehicle Hours	52,621	18,156	42,131
Cost Per Ride	\$1.24	\$1.22	\$.26
Cost Per Revenue Vehicle Mile	\$3.01	\$2.39	\$1.75
Cost Per Revenue Vehicle Hour	\$35.94	\$29.36	\$18.78
Farebox/Expense Ratio	.34	.35	-0-
Average Fare	\$.42	\$.43	-0-
Operating Deficit Per Trip	\$.82	\$.79	\$.26
Rides Per Revenue Vehicle Mile	2.4	2.0	6.9
Riders Per Revenue Vehicle Hour	29.0	24.1	73.6

Source: FY88 Iowa DOT Statistical Reports  
Includes fixed-route and paratransit service

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Current Issues and Future Directions

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## Current Issues and Future Directions

### Federal and State Transit Funding

Coralville Transit, Iowa City Transit and CAMBUS receive approximately 10-20% of their operating revenue from federal and state sources. There is a much greater dependence on federal capital funding, with UMTA programs providing an 80% share of approved projects.

Federal revenue for both operating and capital projects is received from the UMTA Section 9 program. Section 9 is an entitlement program for communities over 50,000 population which is administered by the Iowa DOT. JCCOG is the Designated Recipient of Section 9 funds in the Iowa City Urbanized Area. Section 9 funding comes from appropriations from the general fund of the U.S. Treasury.

Section 9 operating assistance to the Iowa City Urbanized Area has remained around the \$300,000 level for the past three years. This funding is apportioned by JCCOG between Coralville Transit, Iowa City Transit, and CAMBUS based on a formula of operating expenses and locally determined income. U.S. DOT has campaigned during the tenure of the Reagan Administration to reduce UMTA operating assistance. However, UMTA operating assistance to the Iowa City Urbanized Area has actually increased 50% during this time, due to a change in the Iowa DOT state-wide apportioning formula.

Section 9 capital assistance has declined state-wide due to Congressionally-mandated limits on obligation authority. In FY89 the Iowa City Urbanized Area, with the assistance of Iowa DOT, is attempting to access the UMTA Section 3 program for a \$2.2 million grant to assist in the purchase of 13 buses. Section 3 is a discretionary program funded by a one cent Federal motor fuels tax. Iowa contributes approximately \$16 million annually to the Section 3 program. Section 3 will fund 75% of the cost of capital equipment.

State funding for public transit is provided by the Iowa DOT State Transit Assistance (STA) program. STA is derived from 1/20th of the use tax on the sale of motor vehicles and accessory equipment, which yields an



~~estimated \$4 million annually. Other funding may be appropriated by the Iowa Legislature, such as oil overcharge funds which were used in FY88 (\$1.7 million). STA is distributed by formula to the 35 recognized Iowa public transit systems.~~

Any available carryover funds in the STA program plus an annual apportionment of \$300,000 is appropriated to the STA Special Projects program. Special Project funds are distributed on a discretionary basis for projects designed to improve system performance or try innovative ideas.

Funding for the STA program was increased approximately 75% in FY89, due to a decision by the Iowa Legislature to increase the percentage of the use tax dedicated to transit from 1/40th to 1/20th. The funding is used primarily for operating assistance, although occasionally funds will be provided for the local match of a federally funded project.

Speculation regarding levels of federal and state transit assistance has become an annual event. Federal assistance is variable based on the appropriations made by Congress and the limits placed on obligation authority. STA is much more certain now that the annual allocation to transit is based on a dedicated tax rather than a legislative appropriation. Annual funding is expected to stabilize in the vicinity of \$3-5 million state-wide, depending upon the availability of special programs such as the oil overcharge grants.

#### Transit and Parking

A critical short-range planning emphasis will be to explore the interrelationship between parking and transit policies in the Iowa City Urbanized Area. Research indicates parking and transit are inextricably linked, in that they provide the same service (movement of persons) by competing modes of transportation (auto and bus). Since both require significant input of public funds, to consider the policy for one and disregard the other is fiscally imprudent. The University of Iowa has acknowledged this interrelationship by combining administration of its parking and transit systems under a single administrator.

Evidence shows that while parking and transit can be thought of as competing for a fixed amount of travel, auto usage is preferred by the vast majority of persons traveling in the community. This is substantiated by current mode split figures for travel to the Iowa City CBD by Johnson County residents:

Drive alone	44%
Carpool	16%
Walk	19%
Transit	15%
Other	6%

Source: 1980 U.S. Census of Population

The interrelationships between parking and transit are very apparent when studies that have been done in other communities are examined. The availability and pricing of parking is the major factor in affecting transit usage. Although there is a small group of persons who ride the bus for what they consider to be its intrinsic goodness, the vast majority of persons, given a choice, will choose the independent mobility of driving their personal automobile. The importance of transit marketing and advertising is generally overstated. If you make it hard to park downtown, either through pricing or availability, then people will use transit. If parking is cheap and plentiful, they will generally choose to drive. Traffic congestion is a contributing factor in some communities, but in Iowa City congestion levels are so low that it is of minor significance in determining mode split between transit and auto use.

The discussion of parking and transit policy in the Iowa City Urbanized Area will entail a range of issues which must be addressed by policy makers:

- What type of transit system is the community willing to pay for: a high level of service that will attract choice riders and be a major factor in the community's transportation system, or a lower level of service that will provide morning and evening rush hour service and a skeleton system during the rest of the day for transit dependent persons?
- What level of CBD parking demand should the community be fulfilling? Should parking in the CBD be readily available for all shoppers, employees, and university-related users who desire it?
- It is difficult to provide efficient transit service to outlying, low density, single family residential development. Yet, this is the type of housing people want. Should Coralville and Iowa City be expected to provide transit service to this type of development?

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- An ample supply of low priced parking will be a disincentive for people to use transit. Yet, restricting the supply or increasing the price of parking will encourage the decentralization of retail and employment activities.
  - Should transit attempt to serve outlying employment centers? It is impossible for transit to compete with free parking. Typical transit mode split for an employment center with free parking is 1% or 2%. The only examples of suburban employment centers with high transit usage are firms which restrict employee parking.

There is no way planners and operators can successfully plan transit routes, headways, and service levels until policy makers indicate what they want transit's role in the community to be. A strong transit component to the community's transportation system will not occur solely through the efforts of planners and transit system employees. It will occur only through deliberate direction set by policy makers and business leaders such as the Chamber of Commerce.

#### Consolidation of Coralville Transit, Iowa City Transit, and CAMBUS

In 1986 the JCCOG Ad-Hoc Area Transit Study Committee addressed the issue of a consolidated transit authority in the Iowa City Urbanized Area. A consensus was reached that it was not presently advantageous for the three systems to consolidate, for the following reasons:

- Many advantages to consolidation are already in place because of cooperation and coordination between the systems. These include coordination of information services, coordination of the Downtown Transit Interchange, sharing of parts and major maintenance services, coordination of routes to avoid service duplication, honoring of monthly passes between systems, and joint vehicle purchases.
- The tremendous amount of local support for each system and the eroding of this support if they were not autonomous, especially by the City of Coralville.
- The widely varying levels of transit service provided by each system.
- The widely varying wage rates between systems.
- Extremely low administrative costs by Coralville and CAMBUS do not offer much potential for further savings if the systems were merged.

- ~~The increase in the amount of deadhead mileage if the systems were consolidated.~~
- In spite of the recent financial problems encountered by all of the area transit systems, the Iowa City-area systems are still among the most efficient and effective in the State.

#### Future Directions - Coralville Transit

In FY88 a JCCOG study of Coralville Transit was undertaken which resulted in the implementation of transit service reductions by the Coralville City Council. In conjunction with the study the City Council outlined their policy position regarding Coralville Transit:

1. Differing levels of transit service related to area and time of day are acceptable. A minimum amount of peak hour service should be provided to all residential areas of Coralville. Off-peak service (midday, night, Saturday) should be concentrated in higher density, higher ridership areas.
2. While the orientation of Coralville Transit is to the Iowa City CBD/UI Hospital area, using transit to maintain internal circulation within the City of Coralville is also a priority.
3. Newly developing areas of the City of Coralville should be taken into account in planning for Coralville Transit, preferably as extensions of existing transit routes. There are no new developments planned in Coralville which will necessitate an entirely new transit route.
4. The City's commitment to transit-dependent persons shall be concentrated in the core area of Coralville where transit service can be more efficiently provided.
5. When assessing transit system capacity, standees shall be considered acceptable.
6. A City policy is not necessary regarding the amount of property tax and fare revenue for funding Coralville Transit. An unofficial guideline will be followed: that fares will increase when the amount of local tax revenue allocated to transit becomes disproportionate with other city services, as determined by the City Council.
7. The City of Coralville does not wish to consider the operation of transit service in Coralville by the City of Iowa City or the University of Iowa.

8. ~~Specialized paratransit service for the elderly and persons with disabilities will continue to be provided through a contractual arrangement with Johnson County SEATS and a local cab company.~~

There are no changes planned in the management and personnel structure of Coralville Transit.

The evaluation by the JCCOG Transportation Planning staff of marginal areas of service will continue to be an important facet of Coralville Transit's operation. Route studies and performance monitoring will be done as needed to assure transit service is distributed in the most effective way possible.

#### Future Directions - Iowa City Transit

From the mid-1970's through the early 1980's Iowa City Transit experienced significant growth. Ridership tapered off in FY84 and began a decline which has continued until the present. This resulted in service cuts which were implemented in FY87 and FY88 in order to deal with budget deficits. FY88 has seen a continuation of the ridership decline, although the service reductions have been successful in eliminating the imbalance between revenue and expenditures.

Service. Iowa City Transit does not have a written policy regarding the provision of transit service. The ICT route structure exists in nearly identical form as in 1980. Extension of service to developing residential areas has not been implemented, and there has been virtually no demand for transit service from these areas.

The informal policy of ICT for the foreseeable future will be to preserve the status quo. The decision to not extend transit service to developing areas in an orderly fashion has created a de facto policy of concentrating transit services in higher density areas of the already built-up city. The decision to cut midday ICT service from half hour to hourly headways has had a similar effect. Although implemented as a budget reduction measure, the net effect of hourly midday service is to concentrate service in the more efficient peak periods.

JCCOG will continue to monitor the transit market potential of developing areas in Iowa City. If a decision is made to extend ICT service to further outlying areas of the community, it will necessitate a change in route structure. Currently all routes are 30 minutes in length, except Lakeside and Mark IV which are 45 minutes. Nearly all of the 30 minute routes are stretched to the limit - there is no room for further expansion unless 45 minute routes are created. This will involve a decision to implement 45 minute headways (90 minute midday), or preserve the existing

~~30 minute headway (60 minute midday) by adding a third bus to each route pair.~~

The most likely area for an expanded level of service will be paratransit. Issues are currently being addressed which deal with ensuring compliance with Section 504 of the Rehabilitation Act of 1973. The University of Iowa continues to attract disabled students, faculty, and staff who require transportation services in the community. A higher level of coordination between paratransit services offered by Coralville, Iowa City, and CAMBUS is likely. Lift-equipped fixed route buses will be evaluated, as they were in the late 1970's.

Funding. Existing funding sources are expected to remain constant in the short-range. Fare revenue and property taxes will provide the majority of funding necessary to operate ICT. Fares are expected to remain at existing levels. An increase in fare beyond 60¢ is not considered advisable at the present time with respect to fare elasticities and maximizing revenue.

Minor reductions in Federal and State revenue sources should not affect service levels. However, significant decreases in Federal and State funds will be met with service reductions. Night service and Saturday service would be among the first areas considered for reduction or elimination.

Personnel. The existing ICT personnel arrangement is expected to continue unless additional service reductions are implemented. The ICT maintenance organization is expected to remain outside of the Transit Department in the City Equipment Division for the foreseeable future.

#### Future Directions - CAMBUS

The CAMBUS system will continue to concentrate its operation on the provision of transit service for students, faculty and staff throughout the University campus area. The primary thrust will be the provision of service to parking areas and dormitories, with family housing and other University buildings a secondary priority. Coverage area and level of service for the CAMBUS system will remain basically the same but fluctuate as the various uses of University buildings change and new facilities are constructed. A specific expansion of service in FY89 will be to the Finkbine commuter parking lot which is presently under construction.

CAMBUS will continue to operate the Bionic Bus paratransit system for persons with disabilities. Increased service may be provided during interim periods, although a reduction in service area is also under consideration. A reduction in Bionic Bus service area would likely involve reduced service to areas beyond the University campus.

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A reduction in Federal or State transit operating assistance would likely be countered in one of two ways by CAMBUS: by decreasing service to low demand areas such as night Oakdale, and/or by making up a portion of the loss with increased local revenue. Otherwise, local revenue sources are expected to remain relatively constant, although mandatory student fees may decline slightly due to a decline in student enrollment. Any increase in mandatory student fees to CAMBUS must be approved by the State Board of Regents.

The University will continue its efforts to coordinate the University parking and transit systems. This has been facilitated by combining parking and transit under a single University administrator. The fee structure for outlying commuter parking lots will be set to encourage use of transit to central campus, with central campus parking lots given premium parking rates. Additional parking revenue may be considered for CAMBUS if operating deficits are encountered.

There are presently no plans to implement a fare on the CAMBUS system. This issue is re-evaluated periodically, but at the present time the University feels mandatory and optional fees are a preferable method of collecting revenue from users and beneficiaries of the service.

Off-peak hour service (evenings and weekends) is expected to continue at existing service levels.

No major changes in management or personnel structure of CAMBUS are anticipated in the near future. The FY89 expansion of service (three new buses for fleet expansion) may entail the need for additional maintenance personnel. This will be evaluated when the increased service level begins.

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## Future Directions - Johnson County SEATS

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Planning for Johnson County SEATS is conducted by the East Central Iowa Council of Governments (ECICOG). In FY88 the ECICOG Board of Directors adopted a program to direct transit development for the period FY88-92 for the Region 10 transit system, which includes Johnson County SEATS. The continuation of baseline transit service is assumed, with expansion of service in a few specific areas.

The preservation of baseline transit service is predicated on no new sources of public funding for transit becoming available. If federal funding support for Congregate Meals, handicapped work activity centers, and social welfare programs is curtailed, the Region 10 transit system will have to cut back service. This trend has already become apparent with the discontinuation of Head Start service. Farebox revenue is not expected to fund an increased percentage of operating costs.

Local financial support for Johnson County SEATS has grown in the past several years, unlike state and federal assistance which has remained relatively constant. The continued existence of Johnson County SEATS will depend upon the degree to which local government subsidies, social service agency subsidies, and donation revenue can provide continued support. There are no plans by the Cities of Coralville or Iowa City to reduce the level of service provided under contract by Johnson County SEATS.



Capital Planning

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## Capital Planning

### History

The acquisition of UMTA-funded capital facilities in the Iowa City Urbanized Area can be separated into distinct timeperiods. The 1970's saw the procurement of the original UMTA-funded bus fleets for each system, Iowa City Transit in 1971 and Coralville and CAMBUS in 1977. These vehicles replaced either privately-operated fleets (Iowa City) or public fleets purchased with local funds (Coralville, CAMBUS).

The early 1980's saw a great deal of activity constructing new transit facilities. New office and garage buildings were constructed at Iowa City Transit and CAMBUS. Additions to existing buildings were constructed at Coralville Transit and CAMBUS. The first microcomputer equipment was received by Iowa City Transit and CAMBUS and incorporated into the new facilities. All three systems have begun Advanced Design Bus procurement in the 1980's, with 39% of current rolling stock consisting of ADBs.

The late 1980's are seeing a renewed emphasis on bus procurement. Federal capital grants are being processed which will fund replacement of the original UMTA-funded bus fleets for each system.

### Funding

- Federal. Funding of transit capital equipment is predicated on the assumption that UMTA capital assistance will continue to be available for major projects. Funding from the Section 9 (80% share) or Section 3 (75% share) programs are the principal federal funding sources. Section 9 is an entitlement program to the state, with the state dispersing funds on a discretionary basis to the localities. Section 3 is discretionary at the federal level, with the UMTA Administrator determining which projects are selected for funding. Section 3 is a highly politicized process.
- State. Iowa DOT will continue to be a secondary source of capital funding, through the State Transit Assistance (STA) and Capital Match

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Loan Bank programs. STA will provide full or partial funding of the local match for selected capital projects, although this is not a high priority for the STA program. The Iowa DOT Capital Match Loan Bank was created with funds received from the Amoco petroleum overcharge settlement. This revolving loan fund provides multi-year, interest-free loans to Iowa public transit systems for all or part of the local match on federally-funded capital projects.

- Local. Iowa City Transit and Coralville Transit have capital replacement reserves set up in their budgets to provide local match for federally-funded projects. Each municipality makes contributions intended to ensure the availability of local match when federal capital funds become available. Funding is programmed annually by the University of Iowa for use as local match on CAMBUS capital projects. All three systems purchase small capital items using 100% local funding.

#### New Vs. Rehabilitated Buses

An evaluation was conducted in the 1986 JCCOG Transit Capital Plan of rehabilitating "New Look" buses to extend their useful service life versus purchasing new "Advance Design" (ADB) vehicles. A conclusion was reached to proceed with the acquisition of new buses, for the following reasons:

- New bus design technology is superior because of enhanced passenger comfort and safety features. These features cannot be economically retrofitted to an old vehicle.
- The first ADBs had significantly poorer fuel economy than New Look buses. This has been rectified by certain manufacturers who are now recording better fuel economy in their ADB buses than comparable New Look vehicles.
- Parts availability can be a problem. Replacement parts become increasingly more difficult to acquire as vehicles get older. Old buses may begin to deteriorate at a faster rate if replacement parts cannot be obtained.
- The cost effectiveness of rehabilitating an old bus versus purchasing a new bus is approximately equal on an annualized basis.

Minor rehabilitation activities involving power train components and body work will continue to be conducted as required.

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### Large Vs. Small Buses

An evaluation of purchasing small transit buses for use in fixed-route operation was conducted in the 1986 JCCOG Transit Capital Plan. A conclusion was reached recommending against the purchase of small buses, for the following reasons:

- Reduced passenger capacity and convenience.
- Poor durability in fixed-route service.
- Lack of operating flexibility due to low capacity.
- Non-standardization of maintenance facilities.
- Little reduction in operating costs unless a lower wage structure is negotiated for operators of small buses.
- Little or no savings in capital costs on an annualized basis.

Small buses will continue to be used for demand responsive paratransit service in the Iowa City Urbanized Area.

### Spare Ratio

Spare ratio is defined as the ratio of spare buses to peak hour buses, or essentially the number of spares available during the time of maximum vehicle utilization. UMTA Circular 9030.1 states that the number of spare buses in a system's active fleet should not exceed 20% of the vehicles operated in maximum service. However, the rules also state that "the basis for determining a spare ratio should take into consideration specific local service factors" and "grantees should not hesitate to discuss case-by-case situations with UMTA...." The term "active fleet" is important, since UMTA will permit buses to be stockpiled in a contingency fleet for emergencies, as long as the bus has reached the end of its useful service life.

JCCOG research indicates that 20% is not a reasonable spare ratio for Coralville Transit, Iowa City Transit and CAMBUS. This can be defended for the following reasons:

- Small peak hour requirement. With relatively small peak requirements (Iowa City: 14, Coralville: 6, CAMBUS: 14), a 20% spare ratio results in only one to three spare vehicles per fleet. This is inadequate for existing operations.

- Average age. Two large purchases of buses were made in 1971 and 1977 for the three Iowa City-area transit systems. This has resulted in many older buses in each fleet with respect to UMTA-accepted lifespan (12 years/500,000 miles).
- The number of vehicles out of service at a given time. Buses which are out of service at any given time for maintenance reasons should not be considered part of the active fleet which can be put into service in an emergency.

It is not recommended that Coralville Transit, Iowa City Transit or CAMBUS adhere to the 20% UMTA spare ratio guideline, as this will result in an inadequate spare fleet for each system. For calculating an appropriate spare ratio, each system should first determine the number of buses likely to require replacement each day while in revenue service, and add to this the number of vehicles out of service at any given time for maintenance reasons. Maintenance plans for the three Iowa City-area transit systems have been approved by UMTA and are not excessive.

Older buses which are no longer reliable for regularly scheduled revenue service may be suitable as spare fleet vehicles. This is especially appropriate in light of the existing poor market for used transit vehicles.

#### Capital Equipment Replacement Plan

The development of a transit capital equipment replacement plan is intended to:

- Avoid the deterioration of capital equipment through a balanced program of investment in replacement, modernization, and expansion.
- Respond to growing fiscal constraints.
- Illustrate the long range financing implications of major investment programs.

To forecast capital requirements two situations must be considered: the need to modernize and sustain existing equipment, and the need to acquire additional equipment based on expanded levels of service. This matter is simplified in the Iowa City Urbanized Area because none of the three transit systems have plans for significant service expansion. CAMBUS intends to provide expanded service to a new commuter parking lot with three new buses they are procuring as additions to their fleet, but will

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require no significant service expansion in the foreseeable future as University enrollment levels off and eventually declines.

Coralville Transit and Iowa City Transit will respond to shifts in service demand within their communities, but do not anticipate requirements beyond their existing fleets and structures. Because of this, the focus of the following capital plan is maintenance of existing capital equipment.

The basis for determining a schedule for replacing and modernizing capital equipment is average useful life. This concept estimates the number of years an asset is expected to be economically productive. On average, an asset that is in service beyond its useful life is more costly to maintain than to replace. A replacement cycle is based on the following formula:

$$\text{Acquisition date} + \text{useful life} = \text{replacement date}$$

Replacement of equipment with no remaining useful service life is assumed to occur in the following year. However, delays will occur because of financial constraints, because an asset remains in good working order, or because of difficulty in obtaining a replacement.

The next step in the process is to estimate future costs to replace capital equipment. Previous attempts at transit capital equipment programming have developed elaborate inflation rate indices for various equipment classifications. Experience shows that this is not significantly more accurate than using a standard constant rate over the lifespan of an asset. An example of this is the cost of transit buses over the past ten years, which has fluctuated wildly based on market factors, not inflation rates.

The following tables use a straight line 4% inflation rate to calculate future costs for all classes of equipment. As specific projects are programmed for funding in the annual TIP, every attempt will be made to adjust replacement costs which are known to deviate from reality.

Capital equipment planning for Johnson County SEATS is conducted by the East Central Iowa Council of Governments. Capital projects for SEATS are programmed in the ECICOG Transit Development Plan.

## Coralville Transit

### Inventory and Replacement Schedule of Major Capital Equipment

<u>Item</u>	<u>Year of Mfg.</u>	<u>Original Cost</u>	<u>Lifespan in Years</u>	<u>Replacement Year</u>	<u>Replacement Cost</u>
Original Transit Building & Equipment	76	\$ 50,000	20	96	\$109,556
4WD Service Truck	77	6,000	15	92	10,806
35' Flxible Buses (5)*	77	65,000 ea.	12	89	693,000
35' Neoplan Buses (2)	82	145,700 ea.	12	94	438,433
40' Saab-Scania Buses (3)	84	126,000 ea.	12	96	711,314
Transit Building Addition	84	120,000	20	04	262,935
Radio System	89	20,000	11	00	30,789

\*4 to be replaced in FY89.

## Coralville Transit

### Financial Commitment Required for Capital Replacement Program

<u>Year</u>	<u>Federal</u>	<u>State/Local</u>	<u>Total</u>
1989	\$ 554,400	\$138,600	\$ 693,000
1990	0	0	0
1991	0	0	0
1992	8,645	2,161	10,806
1993	0	0	0
1994	350,746	87,687	438,433
1995	0	0	0
1996	656,696	164,174	820,870
1997	0	0	0
1998	0	0	0
1999	0	0	0
2000	24,631	6,158	30,789
Total to Year 2000	<u>\$1,595,118</u>	<u>\$398,780</u>	<u>\$1,993,898</u>
Total Beyond Year 2000	\$ 210,348	\$ 52,587	\$ 262,935
Grand Total	<u>\$1,805,466</u>	<u>\$451,367</u>	<u>\$2,256,833</u>



## Iowa City Transit Inventory and Replacement Schedule of Major Capital Equipment

<u>Item</u>	<u>Year of Mfg.</u>	<u>Original Cost</u>	<u>Lifespan in Years</u>	<u>Replacement Year</u>	<u>Replacement Cost</u>
35' GMC Buses (5)*	71	\$34,028 ea.	12	89	\$472,500
35' GMC Buses (4)	71	34,028 ea.	12	89	693,000
40' GMC Buses (2)	74	43,727 ea.	12	91	374,740
35' Flixible Buses (3)	77	67,598 ea.	15	92	578,973
40' Neoplan Buses (3)	82	154,400 ea.	15	97	739,766
Dollar Bill Changer	81	6,840	12	93	10,951
Radio System	82	55,086	10	92	81,541
Service Van	83	9,158	8	91	12,533
Service Car	83	5,950	7	90	7,830
Transit Bldg. & Equip.	84	2,900,000	40	24	13,922,940
Bus Wash & Cyclone Cleaner	84	93,000	15	99	167,488
Dynamometer	84	79,000	20	04	173,098
40' Saab-Scania Buses (7)	84	126,000 ea.	15	99	1,866,972
Garage Sweeper	85	16,343	7	92	21,506
40' Saab-Scania Buses (3)	84	106,333 ea.	15	01	800,131
Microcomputer System	87	12,000	8	95	16,423
EMS	87	7,000	10	97	10,000
Shelters (35)	Various	5,000 ea.	6	92	221,431
Benches (6)	Various	833 ea.	6	92	6,327
Information Center	88	11,000	8	96	15,054

\*2 not replaced due to fleet reduction.

# Iowa City Transit

## Financial Commitment Required for Capital Replacement Program

<u>Year</u>	<u>Federal</u>	<u>State/Local</u>	<u>Total</u>
1989	\$ 932,400	\$ 233,100	\$1,165,500
1990	6,264	1,566	7,830
1991	309,818	77,455	387,273
1992	727,822	181,966	909,778
1993	8,761	2,190	10,951
1994	0	0	0
1995	13,138	3,285	16,423
1996	12,043	3,011	15,054
1997	599,813	149,953	749,766
1998	0	0	0
1999	1,627,568	406,892	2,034,460
2000	0	0	0
Total to Year 2000	<u>\$4,237,627</u>	<u>\$1,059,418</u>	<u>\$ 5,297,035</u>
Total Beyond Year 2000	\$11,916,935	\$2,979,234	\$14,896,169
Grand Total	<u>\$16,154,562</u>	<u>\$4,038,652</u>	<u>\$20,193,204</u>

## University of Iowa CAMBUS

### Inventory and Replacement Schedule of Major Capital Equipment

<u>Item</u>	<u>Year of Mfg.</u>	<u>Original Cost</u>	<u>Lifespan in Years</u>	<u>Replacement Year</u>	<u>Replacement Cost</u>
Original Garage Building & Equipment	72	\$ 80,000	40	12	\$ 384,081
35' Flexible Buses (12)	77	780,000	12	89	2,079,000
Radio System	78	17,000	10	89	60,000
GMC-Thomas Small Bus*	80	26,000	8	94	72,999
Chevy-Ward Small Bus	82	24,000	8	88	60,000
35' Neoplan Buses (2)	82	291,400	12	94	438,433
Office Building & Equipment	85	180,000	25	10	479,850
Garage Addition & Equipment	85	420,000	40	25	2,016,425
Photo Copy Machine	85	6,000	5	90	7,300
EMS	85	5,000	10	95	7,401
Microcomputer System	85/86	25,000	5	91	30,416
Blue Bird Small Bus	87	57,400	12	99	139,861
ADB	88	346,500	12	00	554,757
Shelters (5)	88	50,000	8	96	68,428
Forklift	88	15,000	15	03	27,014

\*Vehicle will undergo major rehabilitation in FY89.

## University of Iowa CAMBUS Financial Commitment Required for Capital Replacement Program

<u>Year</u>	<u>Federal</u>	<u>State/Local</u>	<u>Total</u>
1989	\$ 946,260	\$ 236,565	\$ 1,182,825
1990	6,264	1,566	7,830
1991	24,333	6,083	30,416
1992	0	0	0
1993	0	0	0
1994	409,146	102,286	511,432
1995	5,921	1,480	7,401
1996	54,742	13,686	68,428
1997	0	0	0
1998	0	0	0
1999	111,889	27,972	139,861
2000	443,806	110,951	554,757
Total to Year 2000	<u>\$2,002,361</u>	<u>\$ 500,589</u>	<u>\$ 2,502,950</u>
Total Beyond Year 2000	\$2,325,896	\$ 581,474	\$ 2,907,370
Grand Total	<u><u>\$4,328,257</u></u>	<u><u>\$1,082,063</u></u>	<u><u>\$ 5,410,320</u></u>

Area-Wide Route Map

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