

The Belle Urban Transit Crisis

INTRODUCTION

A crisis is imminent in the transit service for the City of Kringleville unless certain decisions are made concerning the scope and level of service. A number of events have occurred that dictate a change in service policy:

1. A rumor of a cut in operating assistance.
2. Citizen demand for transit service north of Three Mile Road.
3. Complaints by the disabled about poor quality of service.
4. Possibility of a strike by the bus drivers.
5. Need for evening service

The transit board has asked you and your staff to make an analysis of what to do about these problems. Specifically, you should look into the following alternatives and recommend what is necessary to keep the buses on the street.

- I. Service north of Three Mile Road
- II. Fare Increase
- III. Weekend Service Elimination
- IV. Line Eliminations
- V. Combinations of Service and Fare Changes
- VI. ADA Compliance
- VII. Extended Hours of Service

You should look at these alternatives in sufficient detail to be able to provide the board with estimates of costs and likely effects if they are implemented. This will occur during a time when you are also in the process of labor negotiations with the transit labor union. As you begin, there is a wide difference in what you have offered and what the union wants. In addition, there have been some rumblings lately by the disabled about the poor service they now receive.

You are scheduled to make a formal presentation to the board (in front of the news media as well) in a few days.

The problem uses some data and information from the city of Racine, Wisconsin, but this information has been modified and changed for the purposes of the project. It should in no way be considered an accurate picture of the actual situation in Racine or anywhere else. Names of people and events are purely fictional and in no way represent real people or events. Any similarity to real people or events is purely by chance.

PROCEDURE

The class will divide into groups. The responsibility of each group will be to assume the role of the transit manager and staff preparing for a presentation of financial and operational choices. Your group will be directed to answer several questions in the process of providing service in the City of Kringleville. Because time for this exercise is limited, you will have to choose the information your group feels is necessary to complete the exercise in the specified time frame. So get organized quickly and use your time productively. By way of overview, this workshop may be viewed as containing four major work tasks for your group.

1. Review of problem statements and information relevant to the problems.
2. Development of a strategy for choosing information to use, how to use it, division of labor among group members, justification of route design, etc.
3. Consideration of alternatives ranging from solving the problem purely through changes in routes and levels of service to changes in fares to combinations of both.
4. Preparation of a formal presentation of your plans for the transit board meeting.

The following steps are suggested for the workshop:

1. Labor Negotiation (this will set the driver wage rate which affects the budget forecast for the next two years)
2. Service planning for the area north of Three Mile Road
3. Consideration of late hour service.
4. Consideration of service changes for the disabled
5. Financial and budget analysis
6. Prepare presentation to the Board

The process can be enhanced if you develop some distinctive alternatives. For example, what has to be done to solve the crisis by making only service changes? What fare changes would solve the crisis, if no other changes are made? What are some reasonable combinations of fare changes and service cuts? Whatever you do assume that your plan will have to be justified in front of the transit board that is open to the public and the news media. Expect extensive questions from people who may be hostile to your ideas.

Description of the Community

In order to evaluate the present transit services provided within an area, it is desirable to have an inventory of those factors that affect the provision of transit service. Such an inventory should include not only an inventory of the demand for and the supply of transit services, but should also include an inventory of the physical characteristics of the study area and its land use and socioeconomic characteristics. Special transit-dependent population groups and major trip generators within the area should be identified, and the travel habits and patterns of the resident population of the study area should be described.

The City of Kringleville is next to Lake Ohsobig and is located between Bratville 25 miles to the north and Flatsville 65 miles to the south. It is an important link in the chain of industrial complexes that wind around Lake Ohsobig. Kringleville 's goods are distributed via excellent highway, rail and water transportation.

The study area considered is the Kringleville Urban Planning District, as defined by the City Planning Commission. The area, located in the southeast portion of the Southeastern Cheesland Planning Region, comprises the eastern portion of Kringleville County and is bounded by IH 49 on the north, and the Kringleville County line on the south. The total resident population of the study area, as determined by the U.S. Bureau of the Census, was about 135,000 persons. Of this total, over 85,000, or about 65 percent resided within the City of Kringleville. Several special and general purpose units of government operate within the district and have important transportation responsibilities. They include the City of Kringleville, the Villages of Ashwood Park, North Bay, Sturdyland, and Breezy Point, the Towns of Celtic and Mt. Comfort; Kringleville County, and Kringleville Unified School District.

Kringleville 's greatest strength lies with her people. With over one-third of her population coming from Danish descent, "Kringleville" was named after the Denmark's favorite pastry –the Kringle. A clean and comfortable city, she is in every sense of the word worthy of her name, the "Belle City of the Lakes."

Transit Board Members

The transit system in Kringleville is governed by a board of five people who are appointed by the mayor and confirmed by the city council. Several of the transit board members also hold other municipal positions. Other board members are citizen representatives. For a closer look at these people, we have provided the following descriptions. Don't let the descriptions inhibit your real insight about these people. Feel free to add to these personalities. As you can probably tell, these are purely fictional people and not based on real people or events)

1. Joe (Jody) Coffee, Finance Director, age 49, owns a local coffee shop and also is Finance Director for the City. The coffee shop is located near the downtown. He lives in the same block. Coffee is an accountant who does his job fairly well but is not well liked because of his gruff and terse manner. Recently, a sewer improvement program is straining the limitations of the city budget.

2. Tom (Tina) Taxi, Citizen Member, age 25, part owner of the taxi company and son of the owner. The family owns the taxi company as well as the largest school bus company in the area. He lives in the downtown area. His brother, age 21, is confined to a wheelchair. He has been known to be an advocate of the disabled and has marched in many demonstrations. The taxi company is doing a lot of business in the northern section of the city.

3. Martha (Mark) More, City Council, age 67, retired schoolteacher who supplements her income with the \$5,000 part time salary of council member. She is chair of the transit board. She lives on the north side of the city. She was instrumental in the development and construction of an elderly home at the intersection of Douglas Ave. and Johnson. The elderly home very recently had a 16(b)(2) application turned down largely based on the absence of an indication to cooperate with other agencies.

4. Sam (Sandra) Speed, Traffic Commission member, age 58. Owner of a private traffic control supply company, one that manufactures cones, signs, gates, etc. The company also paints traffic lines. He is a civil engineer who lives outside the urbanized area. Recently complaints have been received concerning downtown traffic congestion. Citizens complain that the traffic signals aren't doing their job, "there isn't enough time allowed for the car waiting to get through the intersection.

5. Donna (Don) Dollar, Citizen Member, age 62, banker. She lives in Breezy Point and manages a branch bank near that community. The bank also has the main bank located downtown. She is very conservative and believes that the test of a good service is one that pays for itself. She also is secretary of the Chamber of Commerce. One year ago a private van pool asked if they could use his 130 space parking lot for a meeting point where six cars would park on a regular basis. Donna suggested \$15.00 a day per vehicle parking charge. The van pool made other arrangements.

TRANSIT SERVICES

At the present time, the bus service area is provided in an area defined by Three Mile Road on the north, Green Bay Road on the west and the University of Cheeseland–Parkside on the south. (Refer to route map.)

The fare is \$1.250 with no charge for transfers. The elderly are able to ride for 60¢ during off-peak times. Grade school and high school children use school buses for distances greater than 2 miles.

Nine bus routes provide service Monday through Friday from approximately 6 a.m. to 7 p.m. with service on Saturdays and holidays on 8 routes from 7 a.m. to 6 p.m.

Financial Situation

Due to changes in operating assistance, and the rising costs of operation, the Belle Urban Transit System faces a financial crisis, with a major funding shortage projected for the next fiscal year. The system budget and projections for the next two years, assuming a similar service and fare level, is given at the end of this document pages. This budget was prepared using a spreadsheet and uses the parameters as shown on the budget sheet. The forecasted costs assume a wage increase of about 3.8% for planning purposes. The actual deficit your group has to deal with will depend upon the outcome of your labor negotiations.



Service North of Three Mile Road

In the last 20 years, the population of the area north of Three Mile Road has increased by 27.4 percent, to a population of 13,400 for census tracts 1502 and 1503. The other census tracts in the area experienced minimal (1-2%) or no population increases during this period. It is an area of moderate to expensive houses. Some of the houses near the lake could be classified as mansions and are the residences of the area's most wealthy citizens.

Accompanying the growth in the northern area of the urban area there has been an unprecedented reliance upon the private automobile as a means of transportation. Youngsters reaching adulthood and new residents, whether they want to or not, must purchase automobiles to travel to work and to meet their daily needs. Meanwhile, many long-time residents, because they are unable to drive, have no economical means of transportation to the now widely dispersed urban activities.

The situation has not gone unnoticed. For some time, there has been considerable interest and discussion by elected and appointed officials and citizens in general concerning the merits and costs of improved public transportation service in the county--particularly north of Three Mile Road. This is an area for possible economic development with a new business park and there are rumors of a major new factory to be located in the area.

Taxi and Specialized Services

For trips within the Kringleville Urbanized Area, there are taxi services and specialized transit services that assist certain groups within the community.

The Purple Cab Company operates 15 taxicabs in the Kringleville Urbanized Area. Service is available 24 hours a day, seven days a week. Fifteen vehicles are owned while 10 is the maximum in service at any one time.

The fare is \$2.50 for the first one-quarter mile (flag drop) and 1.25¢ for each additional one-quarter mile for trips within the city, or \$2.00 for each additional one-quarter mile outside the city. About 95 percent of the trips are within the urbanized area.

The major users of the taxi service are the elderly who comprise approximately 80% of the ridership. The major destinations are shopping and banking areas in the morning and local recreation in the evening.

Needless to say, a substantial portion of the taxi service comes from the area north of Three Mile Road.

The following agencies provide some form of specialized transportation service to certain selected groups in the community. Though not entirely public, they do provide services that must be considered in making decisions on public transportation. They receive funds from the city. These currently come from a separate account outside your

budget.

Service on Wheels is a non-profit religious organization that provides transportation for the elderly and disabled. It has a forty passenger red bus and eight lift-equipped vans. All the vehicles are used on any given day. Many contracts for services are with 20 facilities that serve the elderly and disabled community in the Kringleville area.

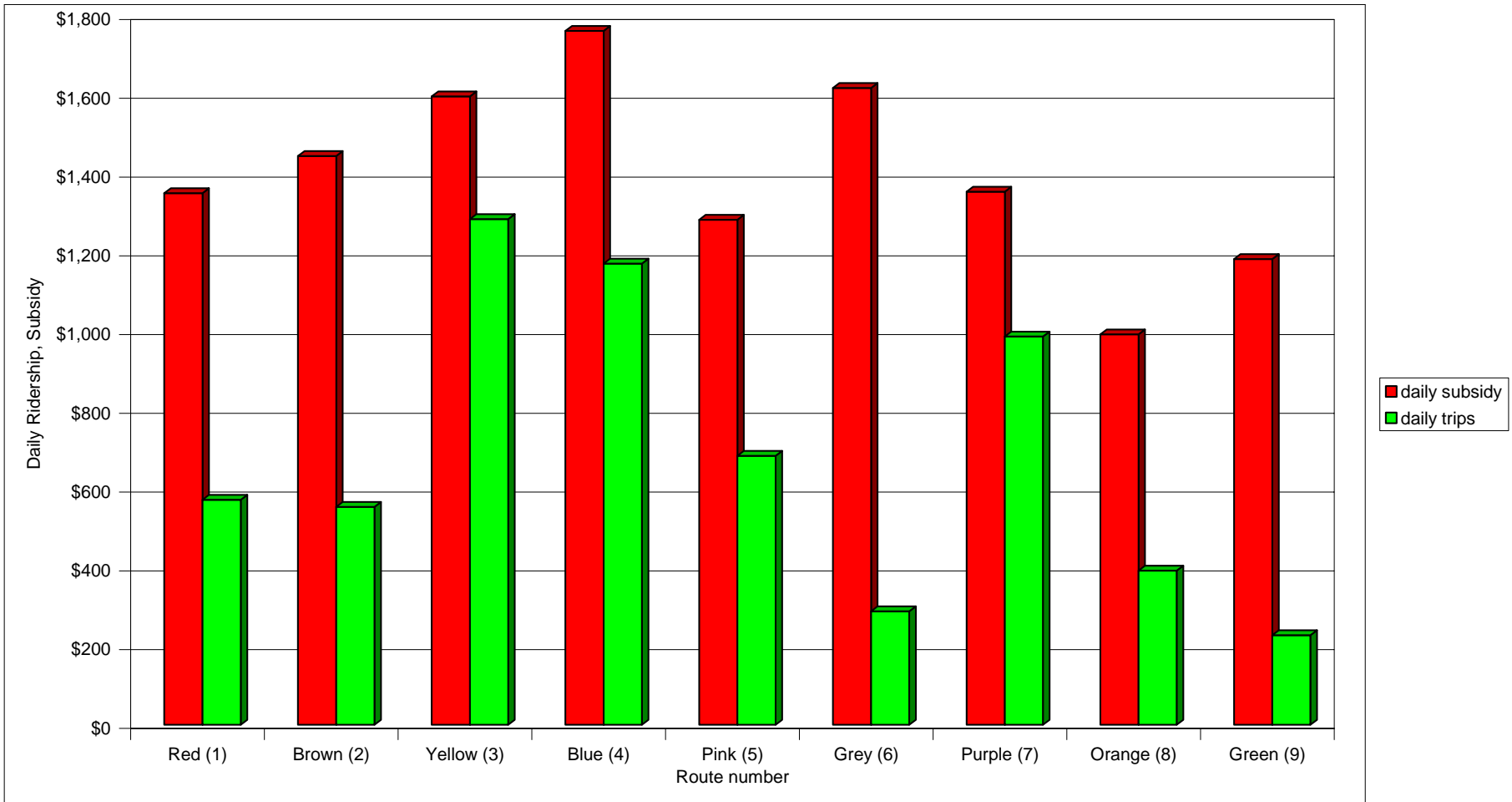
Gateway to transport, Inc. is an agency that provides transportation to and from their facilities for twelve adults on a daily basis. They operate two fifteen (15) passenger vans.

The Golden Geezers is a senior adult program that provides a number of services. Recently it acquired a 9-passenger wagon and a 6-passenger van with a wheelchair lift. In March, they began providing transportation to medical facilities for club members. To be eligible for service, a senior must join the club for fifty dollars and the fare is \$5.00 per trip. Reservations must be made one day in advance.

Transit Route Performance

Performance data for the individual routes has been developed and is shown in the Belle Crisis Spreadsheets. The spreadsheet has been developed to help you calculate the effects of route design changes. Note that the program will not change passenger boardings automatically if you change some characteristics of the route. These must be adjusted manually.

Weekday route performance



Parameters	2006	2007	2008
Costs	fixed	estimate	estimate
adult fare	\$1.25	\$1.25	\$1.25
reduced fare	\$0.60	\$0.60	\$0.60
pct Adult fares	65%	65%	65%
ave fare	\$1.02	\$1.02	\$1.02
fare elasticity	xxx	-0.40	-0.40
oper wage \$/hr	\$18.00	\$18.50	\$19.00
maint wage \$/hr	\$18.60	\$19.53	\$20.46
health ins pct	23.80%	23.80%	23.80%
other fringe	35.30%	35.30%	35.30%
fuel \$/gal	\$2.00	\$2.00	\$2.00
deprec/veh	\$6,281	\$6,281	\$6,281
Calculated			
total cost/hr	\$45.62	\$49.14	\$50.33
total cost/mi	\$3.83	\$4.13	\$4.23
Cost model			
cost/hr	\$32.90	\$33.78	\$34.59
cost/mi	\$0.92	\$1.13	\$1.16
cost/veh	\$12,498	\$12,748	\$13,003

Other	2006	2007	2008
	fixed	estimate	estimate
# weekdays	255.00	255.00	255.00
# sat, holidays	57.00	57.00	57.00
bus mpg	6.50	6.50	6.50
maint hr/mi	0.013	0.013	0.013
pay hr/plat hr	1.030	1.031	1.030
tyre \$/mi	0.033	0.033	0.033
state subsidy %	37.2%	37.2%	37.2%
tot mi/veh mi	1.170	1.170	1.170
hr+vac/veh hr	1.152	1.152	1.152
inflation	xxx	2.00%	2.00%

Shortage next yr
\$161,181
Shortage following yr
\$244,802
() means surplus

Estimated Route Performance for Next Year

Route	Red (1)	Brown (2)	Yellow (3)	Blue (4)	Pink (5)	Grey (6)	Purple (7)	Orange (8)	Green (9)	Average
length (miles)	7.80	9.20	9.00	9.30	8.20	8.40	6.00	6.80	8.00	8.08
headways										
weekdays peak	30.00	30.00	20.00	20.00	30.00	30.00	20.00	30.00	30.00	26.67
weekdays base	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00
sat/hol	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	9999.00	30.00
speed (mph)	10.40	12.30	12.00	12.40	11.00	11.20	9.00	14.00	16.00	12.03
hrs peak	4.00	4.00	7.00	7.50	4.00	4.00	8.00	4.00	4.00	5.17
hrs base	8.00	8.00	5.00	4.50	8.00	8.00	4.00	8.00	8.00	6.83
hrs sat/hol	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	0.00	9.00
ridership										Totals
weekdays	571	553	1284	1171	683	288	986	391	227	6154
sat/hol	335	321	465	886	361	230	729	212	0	3539
%chg weekdays	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
%chg sat/hol	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Calculations										Totals
%chg fares	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
mod weekdays	571	553	1284	1171	683	288	986	391	227	6154
mod sat/hol	335	321	465	886	361	230	729	212	0	3539
weekdays										
peak veh (calc)	3.00	2.99	4.50	4.50	2.98	3.00	4.00	1.94	2.00	28.92
peak buses	3	3	5	5	3	3	4	2	2	30
base veh (calc)	3.00	2.99	3.00	3.00	2.98	3.00	2.67	1.94	2.00	24.58
base buses	3	3	3	3	3	3	3	2	2	25
veh-miles	438	518	702	740	463	472	463	393	449	4639

veh-hours	41.47	41.47	57.60	58.75	41.47	41.47	50.69	27.65	27.65	388
fare revenue	\$585	\$567	\$1,315	\$1,200	\$700	\$295	\$1,010	\$401	\$233	\$6,304
cost	\$2,020	\$2,110	\$2,945	\$3,027	\$2,048	\$2,058	\$2,400	\$1,461	\$1,525	\$19,594
subsidy	\$1,435	\$1,544	\$1,630	\$1,827	\$1,349	\$1,763	\$1,390	\$1,060	\$1,292	\$13,289
subsidy/pass	\$2.51	\$2.79	\$1.27	\$1.56	\$1.97	\$6.12	\$1.41	\$2.71	\$5.69	2.89
oper ratio	0.29	0.27	0.45	0.40	0.34	0.14	0.42	0.27	0.15	0.30
yearly cost	\$514,996	\$538,117	\$750,997	\$771,871	\$522,298	\$524,731	\$612,091	\$372,536	\$388,761	\$4,996,398
sat/holidays										
busses (calc)	3.00	2.99	3.00	3.00	2.98	3.00	2.67	1.94	0.01	22.59
Buses used	3	3	3	3	3	3	3	2	0	23
veh-miles	329	389	379	392	347	354	284	295	0	2768
veh-hours	31.10	31.10	31.10	31.10	31.10	31.10	31.10	20.74	0.00	238
fare revenue	\$343	\$329	\$476	\$908	\$370	\$236	\$747	\$217	\$0	\$3,626
cost	\$1,545	\$1,613	\$1,603	\$1,617	\$1,567	\$1,574	\$1,495	\$1,116	\$0	\$12,130
subsidy	\$1,202	\$1,284	\$1,126	\$709	\$1,197	\$1,338	\$748	\$899	\$0	\$8,505
subsidy/pass	\$3.59	\$4.00	\$2.42	\$0.80	\$3.32	\$5.82	\$1.03	\$4.24	\$0.00	2.80
oper ratio	0.22	0.20	0.30	0.56	0.24	0.15	0.50	0.19	0.00	0.26
yearly cost	\$88,084	\$91,960	\$91,348	\$92,164	\$89,308	\$89,716	\$85,228	\$63,619	\$0	\$691,430
								total	cost =	\$5,687,828
Peformance										
pass/bus hr -										
daily	13.77	13.33	22.29	19.93	16.47	6.94	19.45	14.14	8.21	15.85
pass/bus hr -sat	10.77	10.32	14.95	28.49	11.61	7.39	23.44	10.22		14.84

System Budget

Year	2006	2007	2008
	actual	estimate	estimate
Fleet	38	38	38
Bus hours	112590	112590	112590
Bus miles	1340693	1340693	1340693
Operations			
driver wages	\$2,087,419	\$2,147,477	\$2,203,378
other wages	\$82,758	\$84,413	\$86,101
fringe	\$1,282,574	\$1,319,047	\$1,353,082
fuel & oil	\$412,521	\$412,521	\$412,521
tires	\$44,243	\$44,243	\$44,243
miscellaneous	\$12,847	\$13,104	\$13,366
depreciation	\$238,678	\$238,678	\$238,678
total	\$4,161,040	\$4,259,483	\$4,351,369
pct	76.92%	73.36%	73.25%
Maintenance			
wages	\$359,091	\$377,046	\$395,000
fringe	\$212,223	\$222,834	\$233,445
parts	\$124,290	\$126,776	\$129,311
contract maint	\$21,706	\$22,140	\$22,583
miscellaneous	\$56,257	\$57,382	\$58,530
envir cleanup	\$0	\$256,033	\$256,033
total	\$773,567	\$1,062,211	\$1,094,903
pct	14.30%	18.29%	18.43%
Administration			
wages	\$112,000	\$114,240	\$116,525
fringe	\$66,192	\$67,516	\$68,866
management fee	\$20,000	\$20,400	\$20,808
advertizing,etc	\$19,010	\$19,390	\$19,778
office supplies	\$10,591	\$10,803	\$11,019
city services	\$82,211	\$83,855	\$85,532
utilities	\$42,473	\$43,322	\$44,189
liability ins	\$81,817	\$83,453	\$85,122
audit	\$30,769	\$31,385	\$32,012
miscellaneous	\$9,858	\$10,055	\$10,256
total	\$474,921	\$484,419	\$494,108

pct	8.78%	8.34%	8.32%
Paratransit Subsidy	\$0	\$0	\$0
Total Budget	\$5,409,528	\$5,806,114	\$5,940,380
charter inc	\$17,572	\$17,924	\$18,282
ins repayment	\$16,635	\$16,967	\$17,307
depreciation	\$238,678	\$238,678	\$238,678
Net Budget	\$5,136,643	\$5,532,545	\$5,666,113
Income			
ave fare	\$1.02	\$1.02	\$1.02
trips	1,770,993	1,770,993	1,770,993
fare revenue	\$1,814,294	\$1,814,294	\$1,814,294
net subsidy	\$3,322,349	\$3,718,251	\$3,851,819
Govt aid			
federal	\$857,080	\$857,080	\$857,080
state	\$2,012,344	\$2,159,874	\$2,209,821
school dist	\$75,500	\$75,500	\$75,500
suburbs	\$80,598	\$80,598	\$80,598
university	\$50,948	\$50,948	\$50,948
Racine	\$321,879	\$328,229	\$328,229
other	\$4,841	\$4,841	\$4,841
Total Gov aid	\$3,403,190	\$3,557,070	\$3,607,017
Shortage	(\$80,841)	\$161,181	\$244,802
Rev/Cost	0.34	0.31	0.31