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YORK REGION TRANSIT 2004 SYSTEM PERFORMANCE REVIEW

The Joint Transit Committee and Rapid Transit Public/Private Partnership Steering Committee recommends the adoption of the recommendation contained in the following report October 25, 2005, from the Commissioner of Transportation and Works:

1. RECOMMENDATION

It is recommended that this report be received for information.

2. PURPOSE

The purpose of this report is to evaluate the 2004 performance of the York Region Transit (YRT) system. The report will provide Transit Committee and Council with an overview of system performance based on commonly used industry indicators. The report will also compare YRT's performance with selected GTA and other Canadian transit systems. This report pertains to conventional transit services only and does not include YRT Mobility Plus statistics.

3. BACKGROUND

Performance measurement and benchmarking is used to monitor performance, enhance accountability, provide a basis for continuous improvement initiatives and provide strategic direction for the delivery of services. In several recent employer and resident surveys, public transit and traffic congestion in general, continue to be considered 'top-of-mind' issues.

The concept of performance measurement is not new to the transit industry. For many years Ontario transit agencies were required to submit detailed financial and operational data in order to qualify for provincial subsidies. In addition, the Canadian Urban Transit Association (CUTA) and the Ontario Ministry of Transportation (MTO) collect and publish detailed annual system statistics and performance measures. As a result, the public transit industry is well advanced in the development and monitoring of performance measures.

Some of the more common and relevant performance indicators can be categorized in terms of financial performance, service use and provision, including the following:

- **Service Provision** – Revenue Hours; Revenue Hours/Capita
- **Service Utilization** – Passenger Ridership; Passengers/Capita; Passengers/Revenue Hour
- **Financial** – Revenue/Cost Ratio (R/C); Cost/Hour (Revenue Hours and Total Hours); Average Fare (Passenger Revenue/Passenger Trip); Cost/Capita; Cost/Passenger

4. ANALYSIS AND OPTIONS

YRT commenced operation on January 1, 2001 with the amalgamation of the transit systems formerly operating municipally within the Region. Since the amalgamation, transit services across the Region have been standardized and a significant amount of investment has been made to increase service coverage and levels. In 2004, YRT operated over 70 individual transit routes, in addition to highschool extras, GO shuttles and Express services.

When referring to the YRT system, TTC routes operating north of Steeles Avenue are included, since costs and revenues associated with these services form part of the YRT budget. The 2004 Performance Review report evaluates the YRT system in terms of trend analysis for the past five years and peer group comparisons for benchmarking purposes.

4.1 Public Transit Performance Indicators

Based on CUTA data, statistics have been compiled for YRT for the period 2001-2004, and for a selected peer group of transit systems for 2004 (*see Attachment 1*). In addition to this time series YRT data, both the 2005 and 2006 YRT budgeted data is also presented and compared.

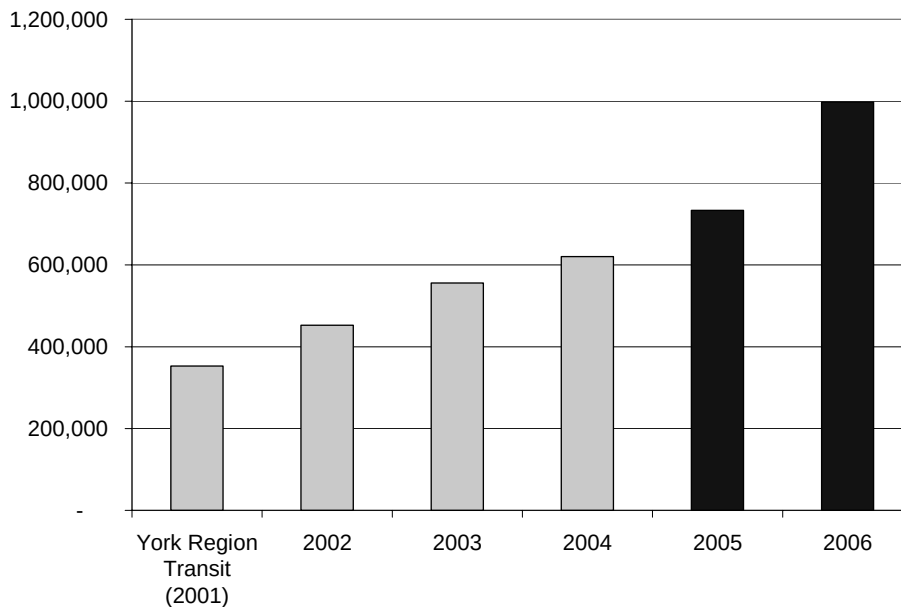
York Region is a fairly unique jurisdictional area, which makes peer group analysis rather complex. Several factors must be given careful consideration when attempting to compare performance indicators. At the end of 2004, York Region had a transit service area population of approximately 884,000, comparable to the service area of Mississauga (695,000), Calgary (933,500) or Ottawa (751,000). However, due to its suburban type of development, close proximity to a major metropolitan area (with subway and commuter rail systems), the Region is more akin to the situation that exists in the city of Laval, north of Montreal.

Other systems are noted for a variety of reasons. For example, TTC and Brampton were chosen due to their immediate vicinity to York Region and cross-boundary travel of our passengers. Mississauga, Victoria and Laval were chosen, amongst other reasons, for comparable fleet size or revenue hours operated. We can also look at Calgary and Ottawa for possible future operating scenarios and, finally, Grand River Transit (Kitchener-Waterloo) due to the similar amalgamation scenario. In addition, the Canada-wide average data (2003) is also included as an overall indicator for the Canadian market.

4.1.1 Service Provision – Revenue Hours

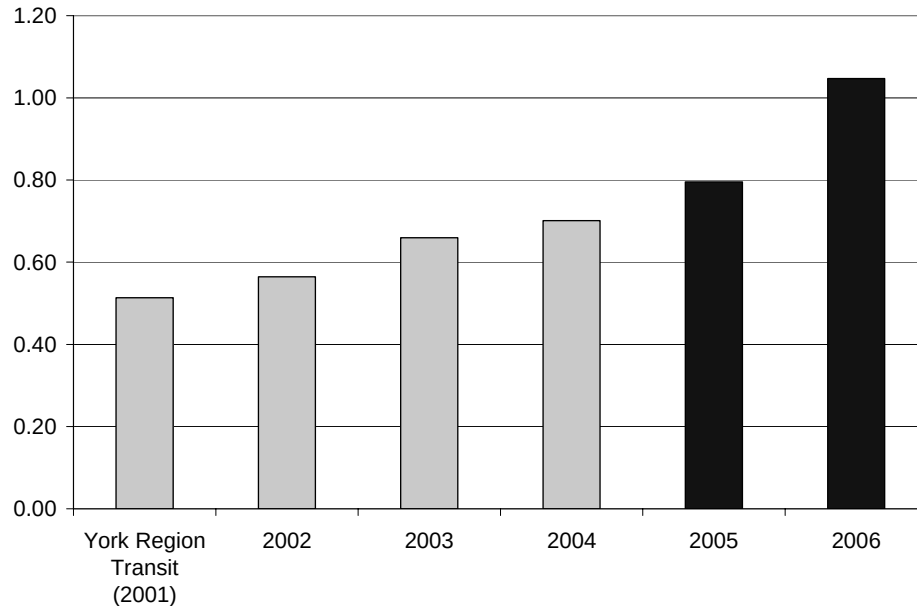
The amount of service provided is most appropriately measured by *revenue vehicle hours*. This figure represents the annual vehicle hours operated by active “in-revenue” vehicles and does not include charters, deadheading, training, road tests and or maintenance related travel. Between 2001 (amalgamation year) and 2004, YRT revenue service hours have increased significantly, at an average of 20% per year (Exhibit 1). With the full year of operation of the new Viva routes, the system service hours will increase 36% within just one year (2005-2006).

Exhibit 1
Revenue Vehicle Hours – York Region

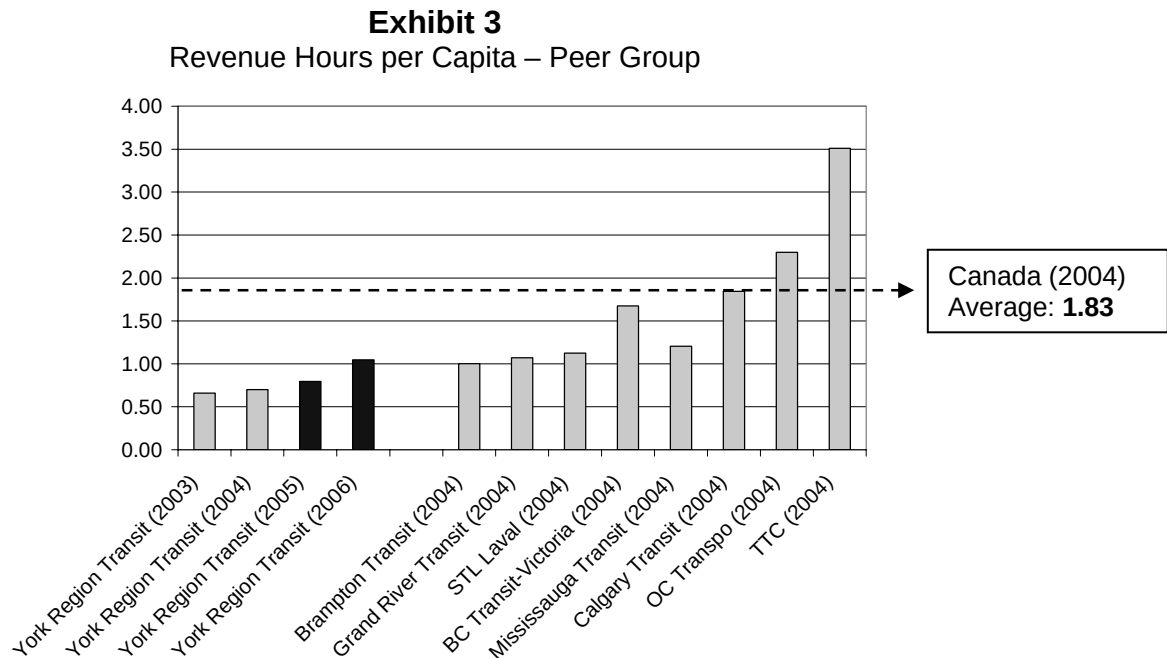


When the revenue hour data is coupled with the service area population, the resulting indicator measures *revenue hours/capita*. As indicated in Exhibit 2, this indicator has steadily increased from 0.51 in 2001, to an estimated 1.05 by the end of 2006.

Exhibit 2
Revenue Hours per Capita – York Region



Even with these steady increases, the YRT service level is still lower than almost all of the peer group's 2004 data, which ranges from 1.0 (Brampton) to 3.51 (TTC). As indicated in Exhibit 3, even with the significant Viva related services hours, YRT still provides one of the lowest rates of service per capita. The YRT figure reflects the relatively low levels of service that result due to the sprawled nature of the Region's population, compared to the older, more established systems with well-defined downtown cores and high service frequencies.

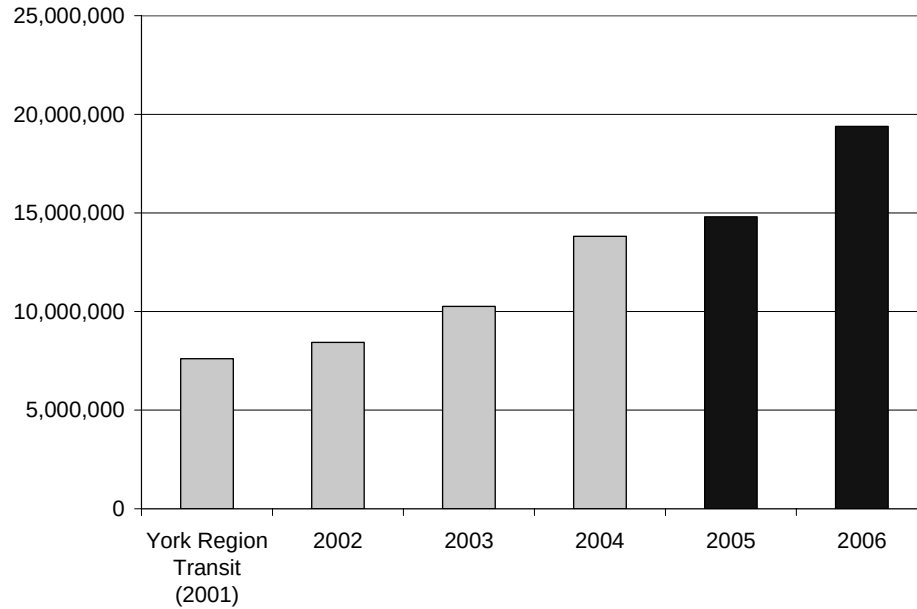


4.1.2 Ridership

Ridership is measured by *revenue passenger trips* and does not include transfers or charter trip activity. Since the amalgamation of transit services in 2001 and the end of this year, total annual ridership on the YRT system will have grown by over 7 million trips. Even when taking into account the transfer of riders from GO Transit's Yonge and Bayview routes (2003), the average rate of increase is approximately 9.5% per year. This rate of increase can be directly attributed to the Region's overall population growth (average 4.5% per year), as well as to the significant increase in service levels. It is estimated that with the introduction of Viva routes, the ridership increase between 2005 and 2006 is expected to be in the 25-30% range. The new Viva services, coupled with the significant increase in fuel prices over the past few months, will likely further impact ridership growth.

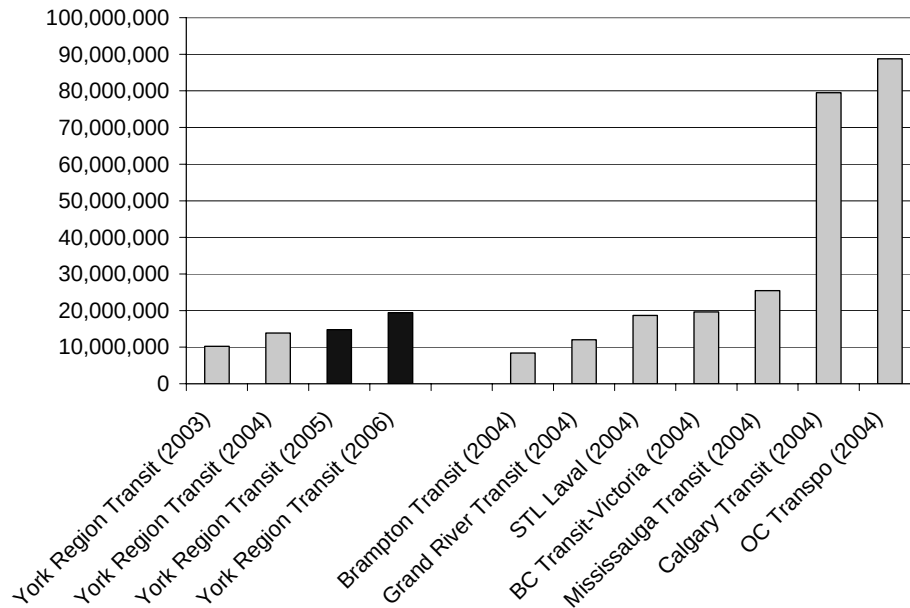
Exhibit 4

Ridership (Revenue Passengers) – York Region



YRT ridership, in terms of overall passenger counts, is similar to Laval or Victoria. However, most cities in our peer group, even with much smaller population levels, have much higher ridership levels. For example in 2004, Mississauga carried over 25 million riders, while Ottawa reported almost 89 million trips. At the far end of the scale, TTC carried over 418 million riders or about 28 times that of YRT (Exhibit 5). It should be noted that, with just a few other exceptions, York Region demonstrated one of the highest ridership growth rates in Canada.

Exhibit 5
Ridership (Revenue Passengers) – Peer Group



4.1.3 Service Utilization

In order to understand the actual service utilization levels, it is important to look at ridership in the context of the service area population and the number of service hours provided. Two indicators provide these measures: *passengers per capita* and *passengers per revenue hour*. Passengers per capita measures actual market penetration, while passengers per revenue hour measures the average number of passengers riding the system during an hour of service (without regard to time of day or day of week). In terms of passengers per capita, YRT levels have increased steadily from 11.1 in 2001 to an estimated 16 by the end of this year. It is estimated that next year, the rate will be over 20 passenger trips per capita. The increase in trips per capita can be attributed to the significant ridership increases which are higher than the Region's population growth rates.

In terms of passengers per revenue hour, rates have increased, however not as consistently as the previous measure. For example, with the significant increase in service hours in 2006 (36% - due to the annualization of service hours on the Viva routes), this measure will temporarily decrease from 20 to 19 passengers per hour. It is expected that by 2007, this rate will once again trend upwards, when the excess system capacity will be filled with significant ridership gains.

Exhibit 6
Passengers per Capita - York Region

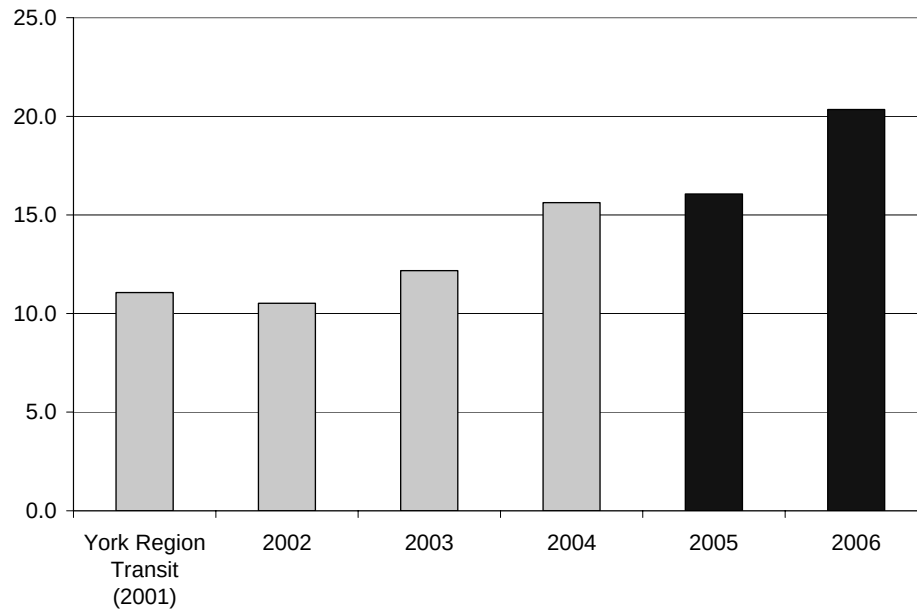
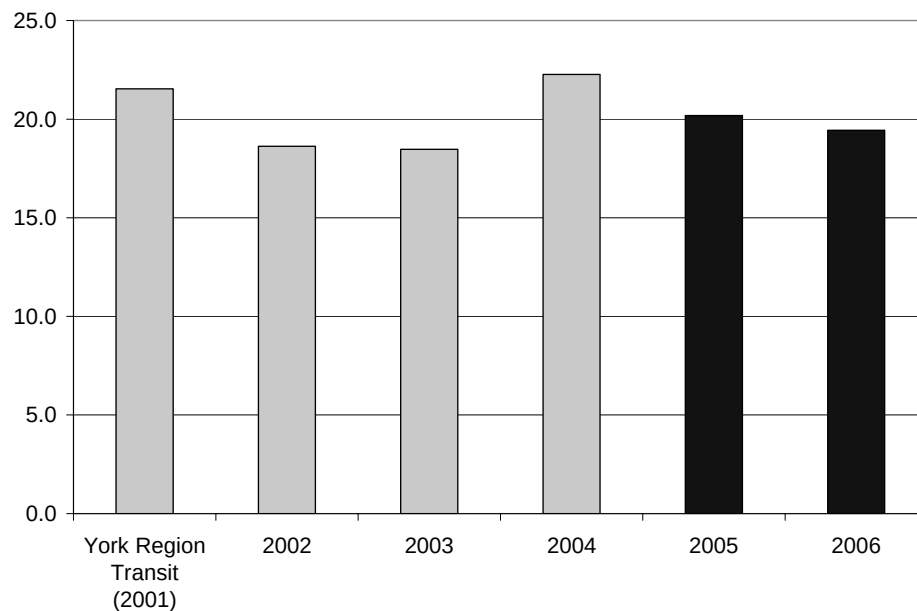
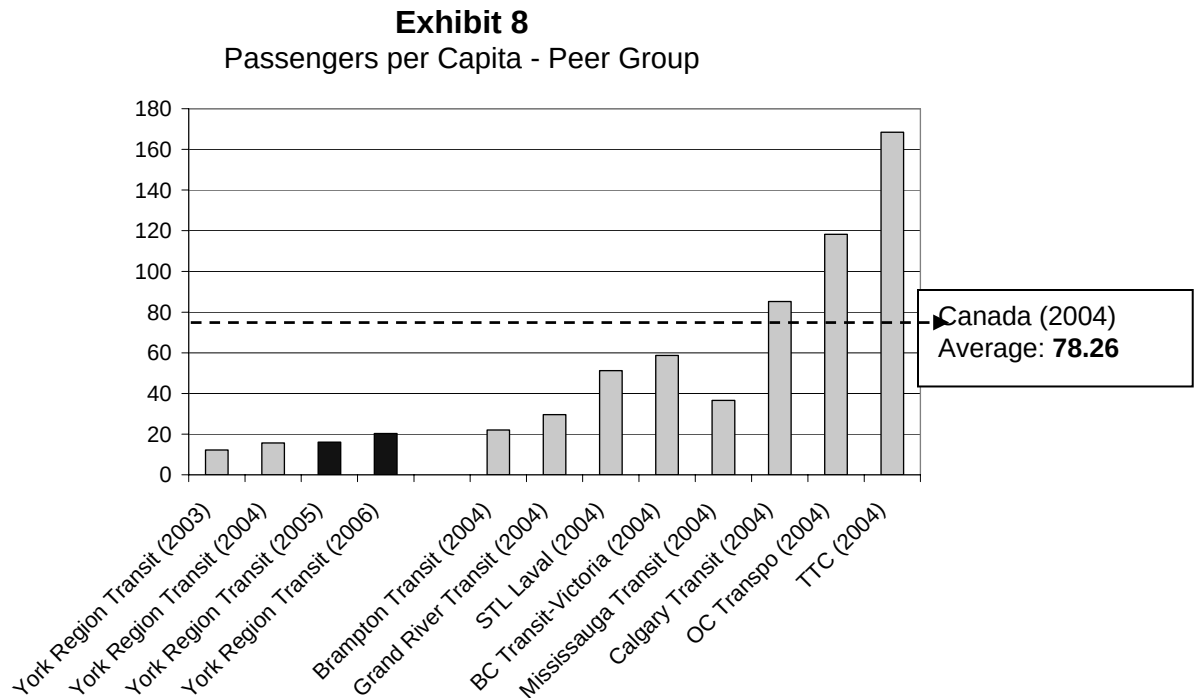


Exhibit 7
Passengers per Revenue Hour - York Region

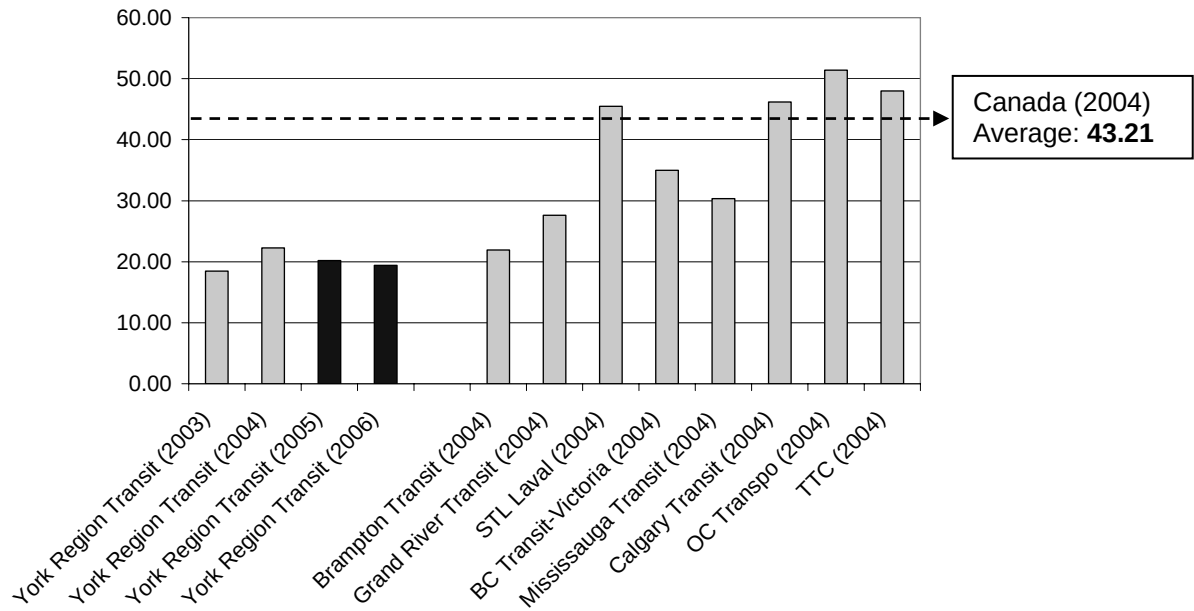


With the peer group, YRT is still at the lower end of the scale in terms of both passengers/capita and passengers/revenue hour. YRT's market penetration in 2004 is 15.6 passengers/capita and is the lowest amongst the peer group which ranges from 22 (Brampton) to 168 (TTC), with the Canadian average in 2003 being over 77. Several factors contribute to York Region's low service utilization rate including prevailing low density development, abundant free parking, relatively high levels of income/auto ownership and still relatively limited transit service levels.



Similarly, the passengers/revenue hour rate is also lower than the peer group, although there is not as pronounced a difference as the previous utilization measure. At an estimated 2005 rate of 20 passengers/revenue hour, the 2004 peer range is between 21 (Brampton) and 51 (Ottawa) or approximately double of the YRT rate. The same contributing factors as noted for the passengers/capita measure can be applied to this performance indicator.

Exhibit 9
Passengers per Revenue Hour – Peer Group



4.1.4 Financial Performance

Financial performance can be measured using a variety of indicators including *revenue to cost ratio* (total operating revenues divided by total direct operating cost; simply referred to as r/c ratio), *net operating cost per capita* (municipal operating cost contribution after revenues divided by service area population) and *net operating cost per passenger*.

The r/c ratio is a direct reflection of the amount of annual investment relative to the system revenues and thus will fluctuate relative to the changes in the rate of investment and ridership levels. Although the r/c ratio is expected to decrease in 2005/2006 (again primarily due to the large operating investment associated with the introduction of Viva services), once ridership increases are realized and service levels stabilize, the r/c ratio will increase. In fact, by 2007, it is expected that the overall system r/c ratio will exceed the 40% level as a result of sustained double-digit ridership increases and less significant operating cost increases.

Exhibit 10
Revenue/Cost Ratio – York Region

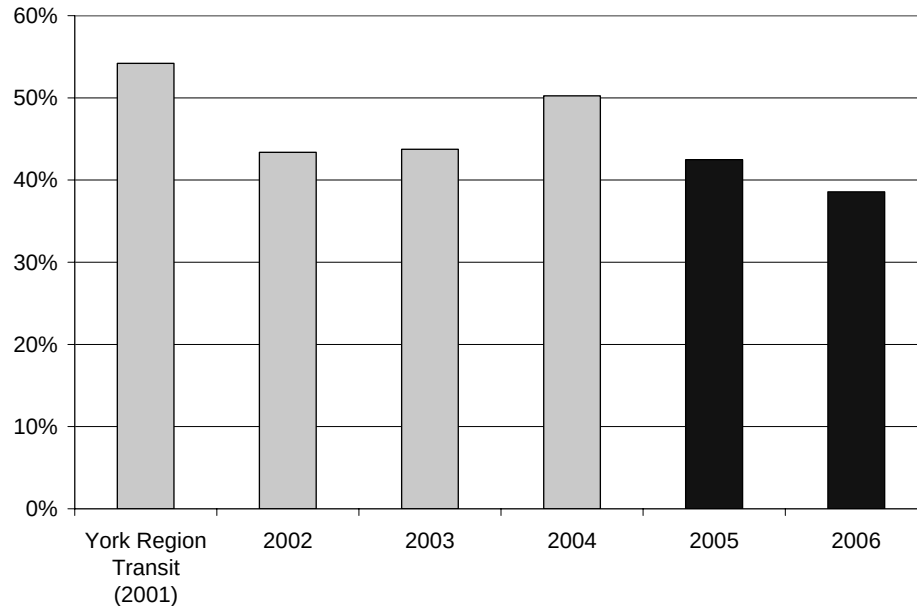
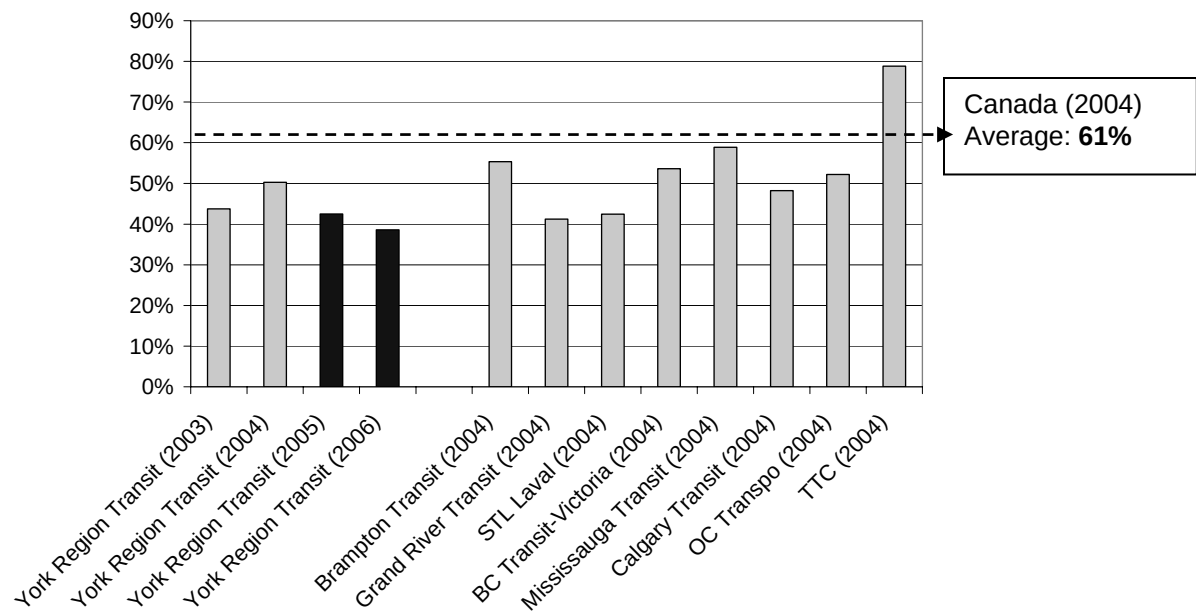


Exhibit 11
Revenue Cost Ratio – Peer Group



Within the peer group, the 2004 r/c ratio ranges from a low of 41% (Grand River Transit) to a high of 79% (TTC). It should be noted that TTC has one of the highest r/c ratios not only in Canada, but exceeds most international cost recovery measures. This high level of cost recovery can be attributed to a mature and efficient transit system which operates

within a relatively high density market, charges a relatively high average fare and operates in well developed rapid transit corridors.

The net operating cost/capita and net cost/passenger measures provide an indicator of financial investment after taking into account farebox and advertising revenues. This investment has risen steadily over the past several years, with the net cost/capita rate at almost \$45 by the end of 2005 – more than doubling the investment since service amalgamation in 2001. The increase will be even more pronounced, rising to just under \$70/capita once the 2006 annualization of services is accounted for.

Exhibit 12
Net Cost per Capita – York Region

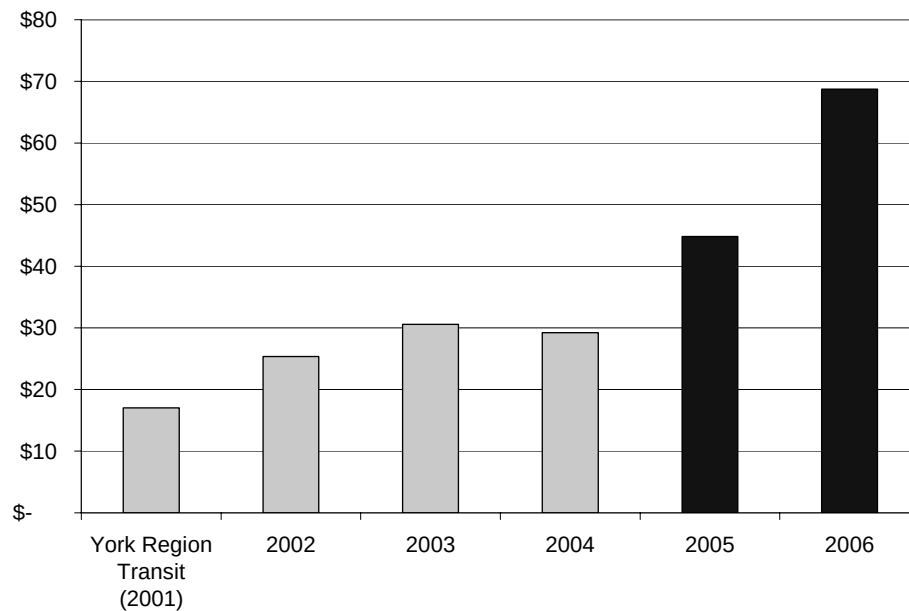
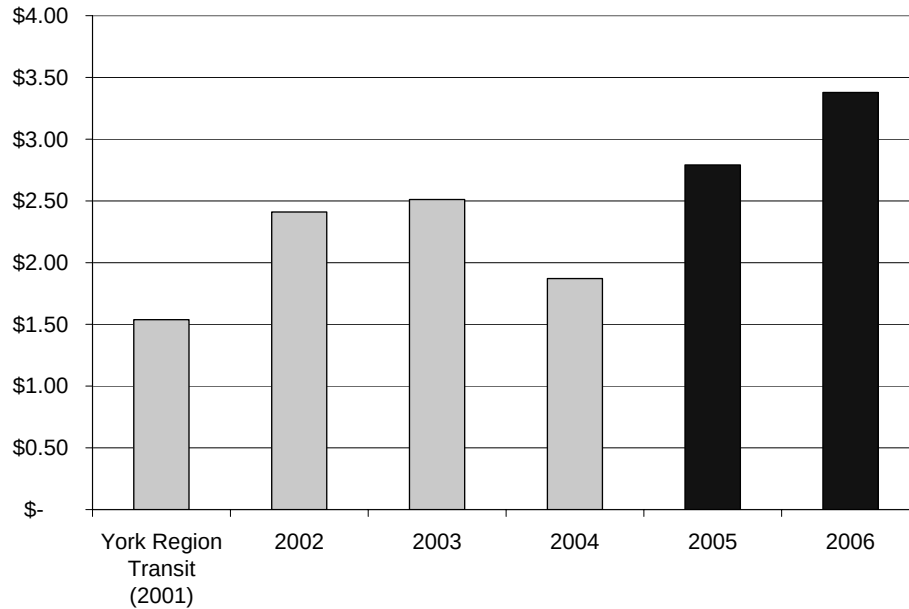
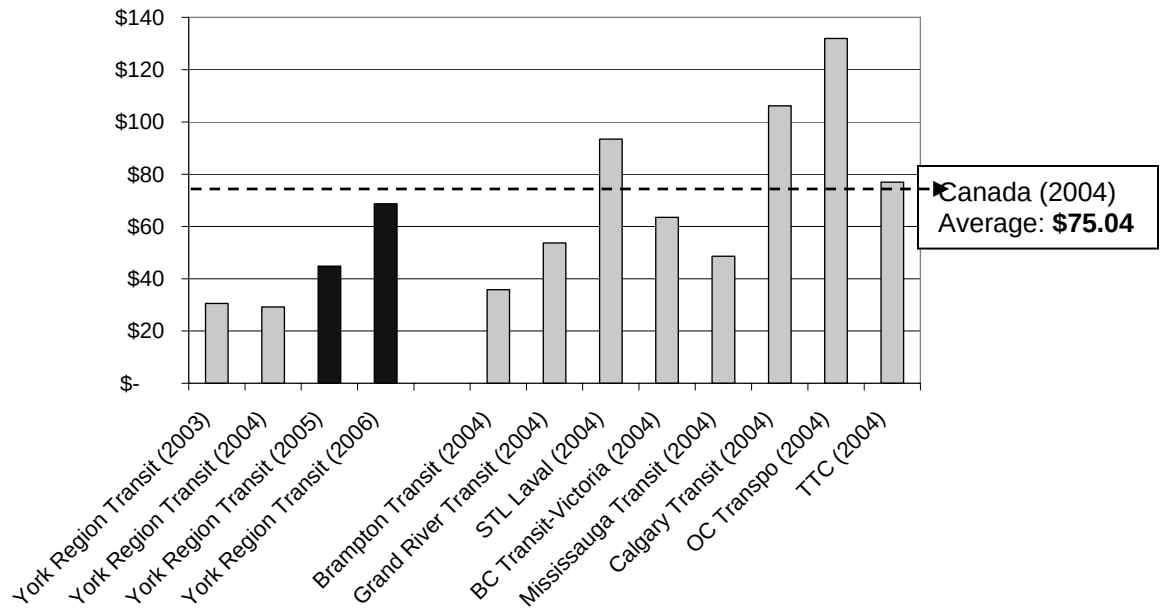


Exhibit 13
Net Cost per Passenger – York Region



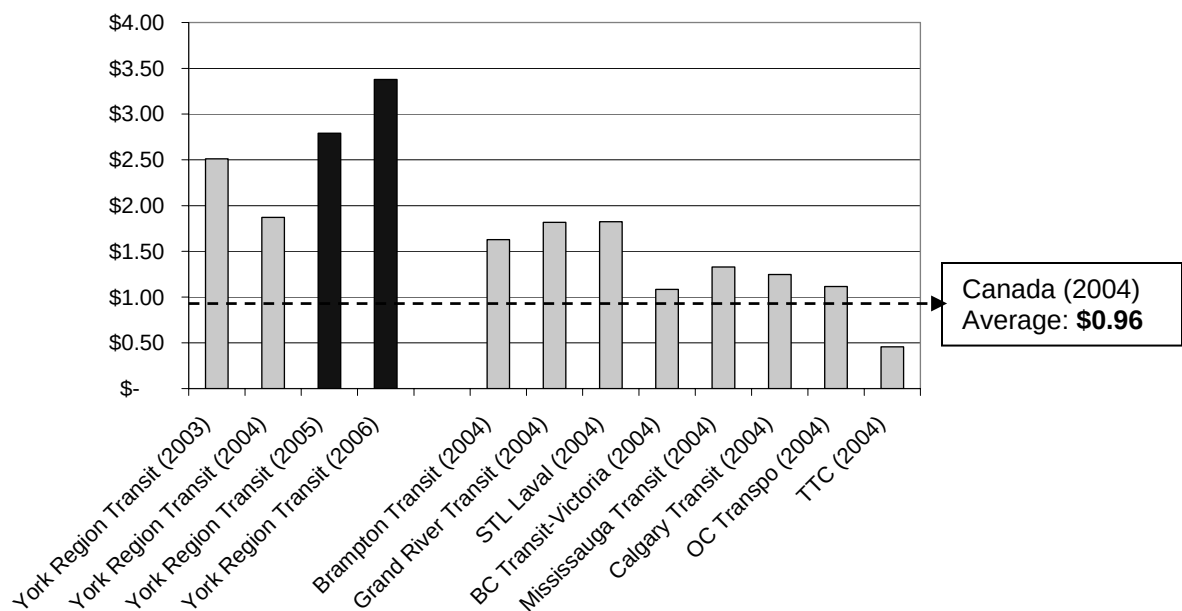
On a per passenger basis, the investment has also risen steadily, from \$1.54 in 2001 to \$2.79 by the end of 2005.

Exhibit 14
Net Cost per Capita – Peer Group



In terms of peer group comparison, it is estimated that by 2006, York Region's investment on a per capita basis will almost reach the Canadian average of \$70. The range amongst the transit systems varies significantly with Brampton at a low of \$36 and Ottawa at a high of almost \$132. It should be noted that the transit systems at the higher end of the range are more likely to operate higher order or rapid transit facilities and generally invest greater resources in their transit system programs and technologies. These comparators provide York Region with a reasonable estimate of expected per capita expenditures for the future.

Exhibit 15
Net Cost per Passenger – Peer Group



In terms of net cost/passenger peer group comparison, York Region's 2005 investment on a per passenger basis is relatively high at \$2.79. The peer group ranges from a low of \$0.46 (TTC) to a high of \$1.82 (Grand River and Laval). The higher rates can be attributed to the relatively high cost of service delivery in systems with large geographic coverage coupled with relatively low ridership levels. The rates for 2005 and 2006 also reflect the large investments in the Viva bus rapid transit program and the lag in ridership growth. Over time, this net cost/passenger figure can be expected to decline.

4.1.5 Cost Effectiveness and Cost Efficiency

Cost effectiveness is measured by total cost/passenger while the efficiency of financial resources is measured by total cost/revenue hour.

York Region's total cost/passenger in 2005 is estimated to be \$4.85 and has been increasing steadily since amalgamation. With the implementation of performance based

service contracts and the introduction of higher levels of service associated with the operation of the Viva routes, this measure will further increase in 2006. This steady increase can be attributed to the higher levels of investment coupled with the lag in ridership growth.

Similarly, the York Region total cost/revenue hour in 2004 was \$83.78, steadily rising since 2001. This can be attributed to direct increases in operating costs (eg. service contract rates, fuel, increases in customer service levels (call centre hours), marketing and administration). There will be a marked increase in total cost/revenue hour in both 2005 (\$97.94) and 2006 (106.84) with the renegotiation of service contracts and the introduction of Viva related services and associated costs (fare enforcement, revenue management services related to TVMs, and technology improvements such as AVL, TSP, increased number of bus stops, etc.).

York Region's total cost/revenue hour are within the higher half of the peer group range, with the 2003 Canadian average being \$90.81. The lowest cost/hour is once again in Brampton (\$79.85) and the highest being Laval at \$150.68 (it should be noted that Laval's revenue hours vs. total hours comparison are somewhat of an anomaly with almost a 50% non-revenue hour operation). Calgary, Ottawa and TTC all operate in the \$105 - \$120 per hour range, although this higher range can be primarily attributed to the operational costs related to rapid transit facilities (light rail, subway, BRT).

It should also be noted that the TTC contract is approximately 20% of the Region's revenue hours, which in part contributes to the system's relatively high rate. When the 2004 TTC service hours and associated costs are isolated, the 2004 YRT total cost/revenue hour decreases to \$78.44, which is 14% lower than the Canadian average and on par with systems such as Brampton.

It should also be noted that, in 2005, YRT will have experienced one time mobilization costs related to the introduction of the new Viva services. Such costs include items related to advanced driver training, start-up facility costs, etc.

Exhibit 16
Total Cost per Passenger – York Region

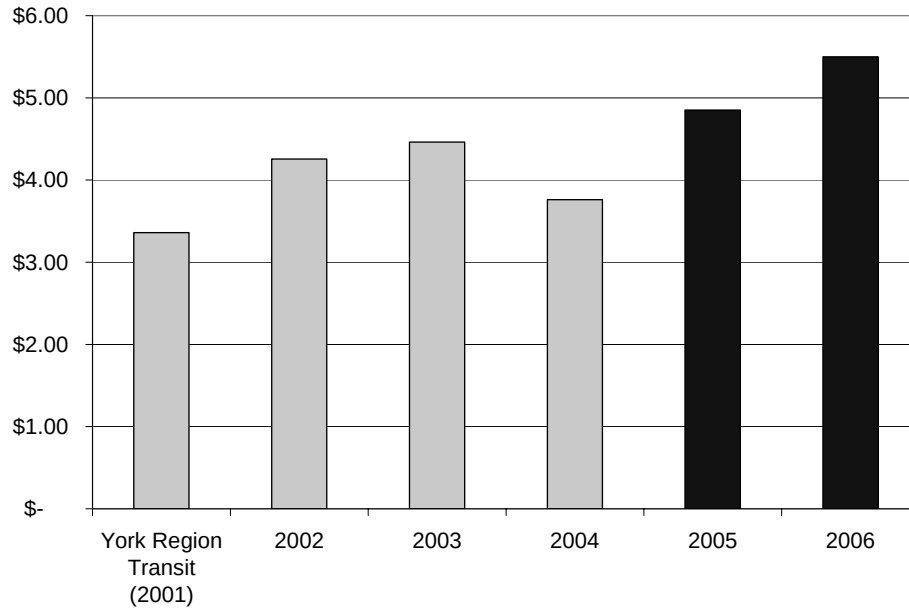


Exhibit 17
Total Cost per Revenue Hour – York Region

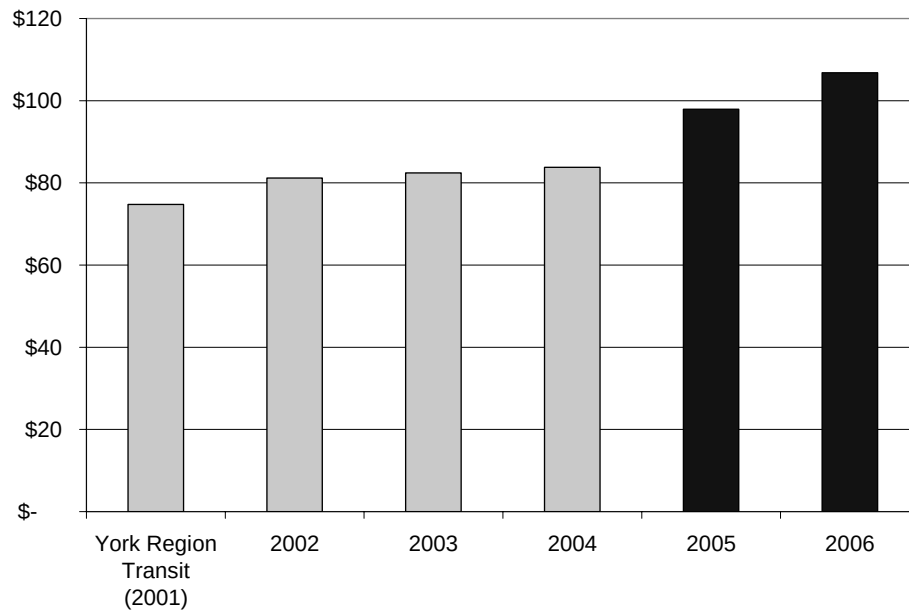


Exhibit 18
Total Cost per Passenger – Peer Group

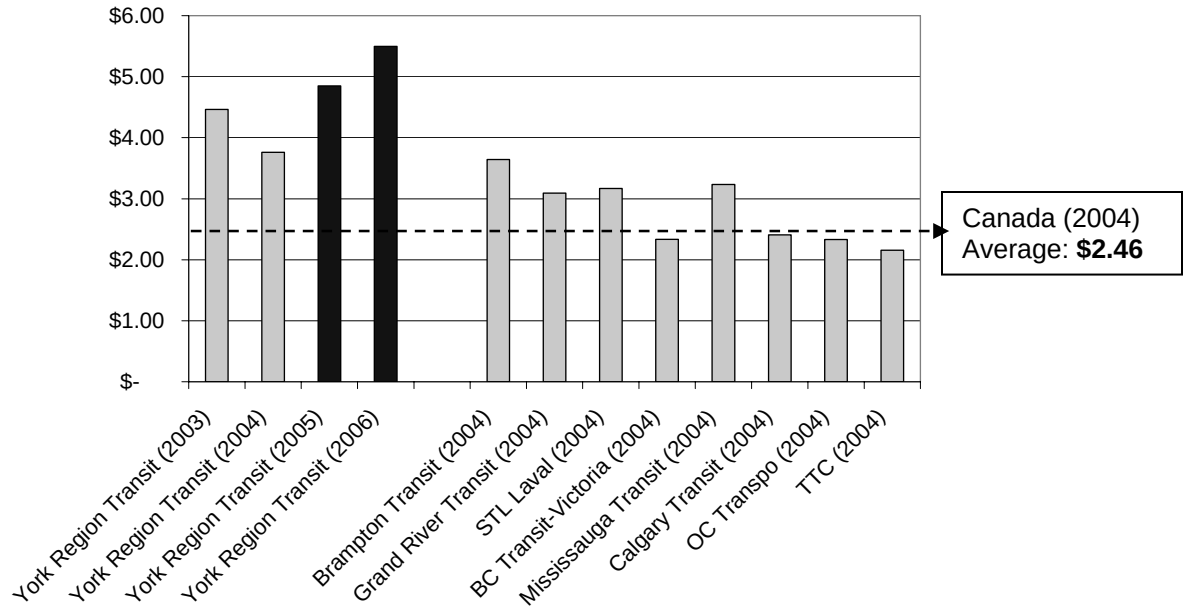
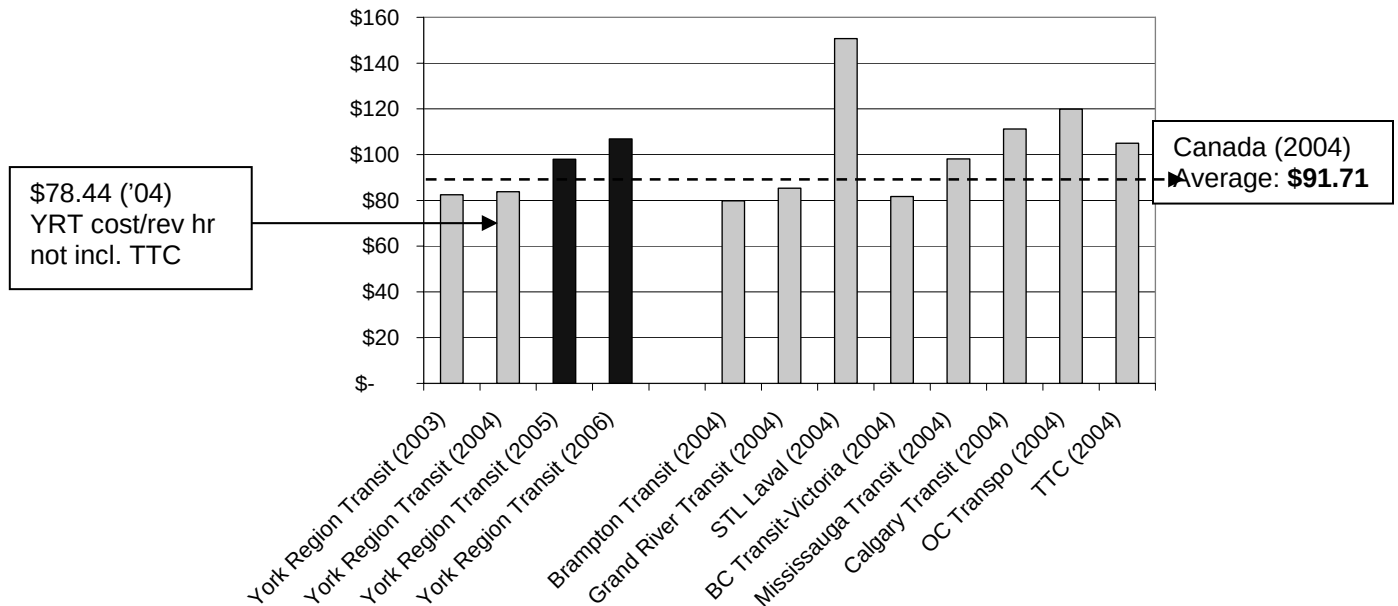
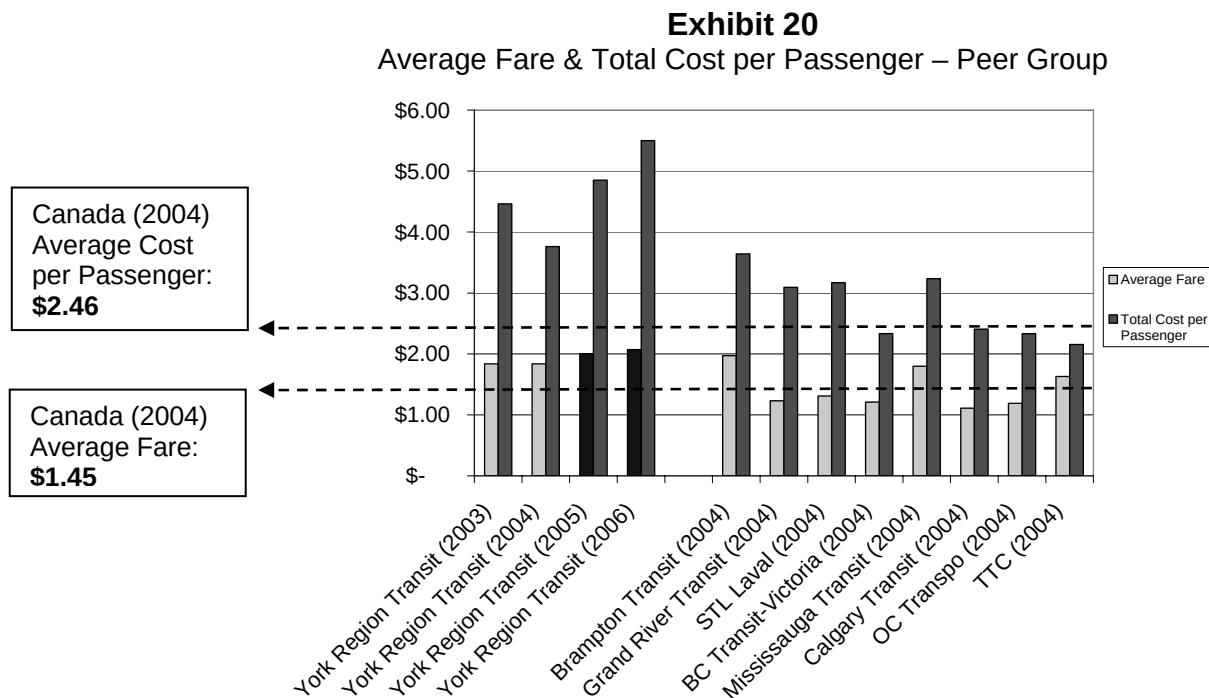


Exhibit 19
Total Cost per Revenue Hour – Peer Group



Another interesting financial statistic is the *average fare*. This measurement calculates the passenger revenue divided by passenger trips and reflects the relative affordability of the transit system. In 2004, YRT's average fare was \$1.84. This was the second highest in the peer group which ranged from a low of \$1.11 (Calgary) to a high of \$1.97 (Brampton). This relatively high rate is largely due to YRT's large market of adult commuters who are charged at the top end of the fare structure.



4.2 Relationship to Vision 2026

The primary reason for undertaking a performance review is to ensure that the transit system's performance indicators are identifying trends and providing benchmarks for future strategic planning purposes. YRT's Five-Year Plan set specific targets including an increase of annual revenue passengers from 10 to 17 million over the next five years (2006). YRT's mandate also includes a major role in contributing to an increase the Region's a.m. peak hour modal share from 8% to 12% during the same period.

Vision 2026 includes a goal statement relating to the development of Infrastructure for a Growing Region, which states that:

"In 2026, York Region will have effective, efficient and environmentally sensitive transportation, waste management and water systems."

To support this goal, the Region has identified specific action areas. The following action areas have been considered for this report:

- Continuing to improve service and infrastructure for successfully integrated transit service.
- Developing an optimal mix of transit service types.
- Promoting transit usage as a practical and wise alternative to private vehicle use.

By measuring key indicators such as levels of investment (costs), returns (ridership and revenues) and various efficiency measures, York Region continues to develop a transit supportive and thus balanced transportation network.

5. FINANCIAL IMPLICATIONS

As part of a continuous improvement process, the monitoring of performance measures provides YRT management and staff with the tools to evaluate both the efficiency and effectiveness of service delivery strategies. These measures and resulting trends can then be used to develop short-term budget forecasts and longer-term strategic plans. For instance, increases in transit ridership and transit service levels will have a positive impact on the transit modal split (percentage of transit market share vs. automobile use). This increase is critical if the Region is to achieve a more balanced transportation system.

The significant increase in public transit investment is resulting in record transit ridership increases. However, it is clear from the current performance indicators, that York Region will require still greater investments in its transit system in order to have a measurable impact on future transit market share. As noted earlier, between 2001 and 2005, ridership on the YRT system will have doubled, resulting in more than 7 million new trips annually. With the introduction of Viva routes, the annual ridership rate increase is expected to be even higher than the 9.5% average annual increase to date. However, these increases do not come without associated costs. Investments, both in terms of capital and operating, have been significant, especially when compared to pre-amalgamation levels. However, the YRT total operating costs per capita are still well below expenditures in cities such as Mississauga, Ottawa or Calgary. Although there has been significant annual cost increases, it is expected that these costs will stabilize over the next couple of years and that the overall system cost recovery rate will improve as ridership increases surpass the rate of investment.

Investment in public transit cannot be made in isolation. Public policies governing planning and development practices to encourage higher density development are also needed to support a more supportive public transit environment. Paid parking policies, transportation demand management initiatives and aggressive marketing campaigns are all factors required to make a demonstrable change in transit usage.

6. LOCAL MUNICIPAL IMPACT

Monitoring performance measures provides YRT staff with the necessary tools to make good decisions regarding service improvements. The YRT system is comprised of over 70 routes operating across the Region. Each route is being evaluated on an individual basis as part of YRT's annual service plan review and update of the 5 Year Service Plan. As a result of this review, service level improvements, possible route restructurings and service standards review will be proposed in order to continue to increase ridership levels and improve convenience and efficiency. A series of public information centres and stakeholder consultations are currently underway to solicit input from all stakeholders prior to updating the next 5 Year Service Plan (2006-2010).

7. CONCLUSION

Public transit performance indicators measure service provision, ridership levels and service utilization. During the first five years of amalgamation, although YRT experienced significant increases in both ridership and service levels, the passengers/capita and cost recovery indicators were still below many other transit systems. With the implementation of Viva this past September, financial performance and market penetration will need to be closely monitored to ensure the effective use of transit investments.

It is envisioned that, with the introduction of Viva, increased population and employment density will follow, thus providing greater opportunities for significant increases in transit market share. Along with financial investment and targeted marketing campaigns, a demonstrated commitment to supporting increased development densities will also be required, especially in the main transit corridors.

In summary, a number of key indicators provide clear direction in terms of future transit strategy:

- YRT net cost/capita is below average for systems of our size, indicating the need for continued financial investment.
- The low service utilization rates represent the most significant challenge - not only do we need to increase ridership, but a real change is needed in the overall transit market share.
- The relatively high operating cost per hour also needs to be closely monitored to ensure that service delivery is efficient while at the same time service demand is met. To a large extent, this is influenced by the cost of the services contracted from the TTC.
- During the first half of 2005, ridership continues to increase (12%) – one of the highest ridership growth rates in Canada. These increases should continue throughout

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Regional Council Meeting of November 17, 2005

this year and next, resulting in impressive ridership gains and an upward trend towards more positive performance indicators.

The Senior Management Group has reviewed this report.

(The attachment referred to in this clause is attached to this report.)