# SUCCESS STORIES of Really Modern Street Cars





Hore are Their Records Hore are Their Cities In Seven Cities

- BROOKLYN
- CHICAGO
- PITTSBURGH
- BALTIMORE
- LOS ANGELES
- WASHINGTON
- PHILADELPHIA



Brooklyn

#### FIRST P.C.C. CAR INSTALLATION

In December, 1936, the Brooklyn & Queens Transit Corporation installed 100 P.C.C. cars (so-called after the Presidents' Conference Committee of the American Transit Association, which developed them at a cost of three-quarters of a million dollars).

Up to January 1, 1940, these cars had run a total of 13,850,066 miles, or 138,500 miles per car, on the following four lines which are completely equipped with P.C.C. cars: Smith-Coney Island line, McDonald-Vanderbilt line, Seventh Avenue line, and Erie Basin line.

#### SAYS THE MANAGEMENT TODAY

"Experience in Brooklyn with the P.C.C. car during the past three years has led to the conclusion that, because of its ability to increase passenger riding and at the same time to decrease operating cost, this car is a real step forward in the field of urban transportation."

#### **REVENUE UP 15 TO 33%**

During the first year of P.C. C. car operation, passenger revenue on the four lines equipped with them increased by the amounts shown at the right. The 100 mark on the chart is, of course, the index of revenues on the lines in 1936 before the P.C.C. cars went into service. The increases shown have been maintained in spite of the fact that revenues on the rest of the trolley lines in Brooklyn have decreased from 1 to 5%.

The 33% increase is the equivalent of an increase of \$5725 per car per year.



#### SCHEDULE SPEEDS INCREASED 13 AND 14%

The track on the McDonald-Vanderbilt and Smith-Coney Island lines is used exclusively by P.C.C. cars for practically the entire length of these two routes. Therefore, it has been possible to increase schedule speeds on these lines by 13 and 14%, respectively. Since the track on the other two lines is also used by older cars, it has not been practical to increase the speeds materially on either of them.

#### LESS POWER REQUIRED

#### During the heating season the P.C.C. cars, even with their higher schedule speeds, use less power than the older cars and they impose a considerably lower maximum demand on power facilities. During the nonheating season the new cars use about the same amount of power as the older cars which they replaced

#### 1061 OUT OF 1400 RIDERS VOTE FOR THEM

When the first Brooklyn cars went into service, a survey of rider opinion was made. An overwhelming majority specifically stated that they prefer modern street cars to gas buses. The comments on one of the ballots reproduced below are typical.



Chicago-

"Life today is streamlined, air-conditioned, finger-tip controlled, and wrapped in a striking play of color and light. People buy modern automobiles with enthusiasm because they satisfy a desire for modern style, more power, greater comfort, and higher speed."

"Public transit, with its inherent advantages of low cost, safety, and dependability, will prosper if management fulfills these modern desires of the people."

> —E. J. McIlraith, Chicago Surface Lines

#### REALLY MODERN CARS HAVE PROVED THEIR RIDER APPEAL

The big crowds that turned out to welcome the first streamlined cars in Chicago were good evidence of the way these modern electrics appeal to the public. Chicago citizens have shown their enthusiasm in even more tangible fashion—in the first year of operation, riding on the Madison Street line, where the new cars operated, *increased approximately* 12%. This gain has been maintained ever since. Although riding on the entire system in 1938 and 1939 fell about 6% below the 1936 figure, riding on the Madison Street line stayed about 7% above the 1936 figure.

#### **BASE SCHEDULE SPEEDS 10% HIGHER**

The heavy volume of general traffic on Madison Street prevents the cars from performing to their maximum ability. Despite general traffic interference, however, the schedules are 10% faster in off-peak hours and average about 8% faster than in 1936. A one-way trip  $(7\frac{1}{2} \text{ miles})$  is made in about 36 minutes in the mid-day period.



#### 83 CARS HAVE RUN 11,400,000 MILES

Since the first of the 83 modern cars in Chicago went into service on November 12, 1936, the vehicles have operated 11,400-500 miles (as of August 1, 1940). During this time they have carried 154,100,000 riders.

The new cars glide along so smoothly that it's easy to eat lunch on them without spilling a drop of coffee

### "NEW CARS ARE SOLUTION TO MODERNIZATION," SAYS PRESIDENT RICHARDSON

"The Madison Street car operation has demonstrated that these new cars are the solution to modernization of street rail equipment. The cars have fulfilled the promises made for them. Wherever the new cars have been installed, they have proved an immediate success. It is our earnest hope that we can soon begin placing the new cars on many additional lines in Chicago."

#### LANDSLIDE VOTE IN FAVOR OF STREET CARS

E STRAUS SCHRAM When Chicago's fleet of modern street cars rolled into operation in 1936, a sample ballot of passengers was taken. Of the 2546 who sent in ballots, 2155 stated that they prefer street cars to gas buses.

Comments like this one from a Chicago citizen are typical of what the people think of modern cars: "I think the new street cars are a feature of beauty for our city. They are smooth and noiseless. Far ahead of buses of any kind."

> TWO GRAND FEFTURES "GIVE ME YOUR | EART"

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Patsburgh-

#### **301 MODERN CARS IN OPERATION**

By January, 1938, Pittsburgh Railways had 201 P.C.C. cars in operation. An additional 100 were put into service early in 1940.

#### HAVE OPERATED 27,000,000 MILES IN BASE SERVICE

As of January 1, 1940, the first 201 P.C.C. cars had operated 27,218,746 miles. They were assigned to the 18-hour base service, and the peaks were filled



out with speeded-up old cars. The same policy of using the new cars for base service has been followed in assigning the 100 latest cars. The 39 routes whose base service is now furnished with P.C.C. cars account for about 82% of the urban system revenue.

#### NEW CARS INCREASE RIDING FROM 5 TO 10%

P.C.C. cars operated only in base service have demonstrated the ability to hold traffic at levels 5 to 10% higher than speeded-up old cars and at still greater percentages higher than the old low-speed cars.

#### FASTER SCHEDULE SPEEDS

About 9 P.C.C. cars can furnish the same service which requires 10 speeded-up old cars. About 7 or 8 P.C.C. cars will do the work of 8 or 9 old low-speed cars.

#### **24% REDUCTION IN ACCIDENTS**

For the first full year of operation of the first 201 P.C.C. cars, the number of accidents involving them was 24% less than the number involving old cars used on urban routes. (At the same time, the 201 P.C.C. cars were accounting for 58% of the urban revenue and 54% of the urban mileage.)

#### LESS POWER USED

The power required for traction is about the same for the P.C.C. cars as for the speeded-up old cars. However, since the P.C.C. cars don't require special electric heaters, they effect a saving in the power used for car heat.

#### SAVINGS IN MAINTENANCE COSTS

"Experience to date," reports the Pittsburgh Railways, "indicates that a substantial saving in the cost of maintenance of equipment and track will be obtained with the new cars."

#### CARS PROVE ABILITY IN HEAVY TRAFFIC AND DEEP SNOW

Practically all routes are over the hilly terrain typical of Pittsburgh. Although streets in both downtown and residential districts are rather narrow, the lines are almost 100% double track. In many places streets are so narrow that traffic cannot pass street cars where automobiles are parked at the curb. Blocks vary in length, and cars stop in places designated by signs.

On February 14, 1940, the worst snow storm in many years struck Pittsburgh and thoroughly tested the P.C.C. cars under severe winter conditions. The new cars definitely proved their superiority. There were only two P.C.C. car derailments, compared with 35 derailments of other cars. In every reported case of a route tied up by cars stalled by snow, the stalled car was of an old type. In certain places where the old cars could be backed to the side track, the P.C.C. cars succeeded in pushing through to open the route.



"Under present-day conditions we know of no vehicle for surface transportation which can compete with a modern street car for long hauls or heavily traveled lines, and this seems to be borne out by the experience of other companies."

> -From the 1939 Report of the Baltimore Transit Company

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#### 68 MODERN CARS IN SERVICE

The Baltimore Transit Company put 27 modern street cars into service in January, 1937, and 41 more in July, 1939. Up to February 1, 1940, these cars had operated a total of 5,271,489 miles. The first group of 27 cars is used to provide base service on the No. 31—Garrison Boulevard—and No. 25—Mount Washington—lines. The cars added for peak operation are one-man high-speed cars with automatic control, purchased in 1930. These are the same type of cars which operated on these lines prior to the installation of the P.C.C cars.

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There was a small increase in revenue at the time the P.C.C cars were placed in service. It is believed that the increase wasn't greater because the 1930 cars were almost equal to the P.C.C. cars in speed, and the revenue on the line was materially increased at the time of their installation.

#### **REVENUES INCREASED 8%**

The 41 cars put into operation in July, 1939, provide base service on the No. 8 line. The added peak service is supplied by the two-man, semi-convertible cars which formerly operated on the line. Despite the fact that operation was changed from two-man to one-man upon the installation of P.C.C. cars, schedule speeds have been increased.

Revenues have gone up 8%. This is the heaviest line on the system, and grosses over \$1,000,000 annually. Prior to the installation of the new cars, its revenue had been shrinking. In the last four months of 1939, however, it increased at a rate indicating more than \$100,000 a year.

#### MAINTENANCE COST FAVORABLE

The maintenance cost of the new cars for the year 1939 was reduced to approximately the level for the old semiconvertible cars despite the fact that P.C.C. cars have many additional items of equipment. It was slightly less than that of the cars purchased in 1930.

#### BEST ADVERTISING IS MODERN EQUIPMENT, SAYS MANAGEMENT

In its 1939 report, this company states: "Your management believes that the best and most effective form of advertising is the use of modern equipment." From its experience with all types of modern transit vehicles, Baltimore Transit is well qualified to speak on this point, since it is a big user of modern trolley coaches and electric-drive buses as well as modern street cars.

At the right is a sample of some of the promotion done in connection. with its new cars. Many replies such as this one from a prominent lawyer were received: "I have ridden on the new cars and they are very comfortable and speedy and have many advantages over the operating of a private automobile."

7015

THE BALTIMORE TRANSIT COMPANY September 11, 1939 As a motorist driving your own car into the city via York Hoad, We believe you will be interested to know how convenient and pleasant it is to use the new streamlined Fullman electric cars which were recently Dear Mr. Young: These modern cars make faster time and offer greater comfort, quietness and moorthness than any street cars ever built. If you can do Ent into obstation on the Number 8 Fine. without your automobile while in the city, they also offer a chance to Jead your newspaper and relax on the way to and from town. Many agree that driving into the city every day puts a strain on nerves and tempers. as well as a tax on time and pocketbooks. Some have found that going to town in these new Fullman street cars gives them more energy and quister Derres for their work, besides saying gas, oil and upkeep on their cars. We invite you to try the new cars on the Number 8 Line, because we believe you will like this new and greater confort in trensit Your safety then becomes our responsibility. service. When you try it we would welcome any comments or suggestions you might care to make.

Ba President.



Los angeles-

#### **95 MODERN STREET CARS IN OPERATION**

The Los Angeles Railway Corporation put 60 P.C.C. cars into service in August, 1937. In February, 1939, 35 more were added. As of February 1, 1940, these 95 cars had operated 7,836,221 miles—an average of 82,486 miles per car.

#### **PROVIDE BASE SERVICE ON THREE LINES**

At first the P.C.C. cars were used to provide complete base and peak service on Line P. Later they were redistributed in order to give complete base service on Lines 3, J, and P. Used in this way they supply 45% of the peak service on Line 3, 58% on Line J, and 59% on Line P.

#### NET REVENUES 10 AND 12% HIGHER



On Lines 3 and J, with only base service provided by P.C.C. cars, there has been a 12% increase in patronage. The management estimates that 10% of this is *net* new business—the equivalent of an increase in receipts of \$3000 per car annually.

When the P.C.C. cars were first used to furnish complete service on Line P, patronage increased 14%. This increase was maintained even after the cars were redistributed and base service only was given with P.C.C. cars. The management estimates that 12% of this is *net* new business. This has amounted to an increase in receipts of \$4000 per car per year.

#### SCHEDULE SPEEDS

Because of the immense number of automobiles and many traffic signals (average four per mile even outside the central business district), and because a portion of the track used by these three lines is also used by lines operated with slower equipment, it has not been possible to increase schedule speeds materially. On a Sunday, however, advantage can be taken of the cars' fast performance, and schedule speeds have been increased from 10 to 12%.

#### **POWER CONSUMPTION**

Measurements of power consumption show that the P.C.C. cars use 4.09 kw-hr per car-mile, as compared with 3.49 for the standard heavy cars and 3.02 for the system average. Of course, the absence of cold weather in Los Angeles keeps this operator from making big savings in power consumed for heating.

#### NEW CARS ARE GOOD SALESMEN

In an article on the merchandising of transit rides in TRANSIT JOURNAL for May, 1940, Guy Gifford of the Publicity Department of the Los Angeles Railway states, "The best of all merchandising is new equipment." He then points out that P.C.C. cars have boosted Los Angeles revenues as shown above.





Mashington

**167 MODERN CARS IN SERVICE** 



The Capital Transit Company had 133 P.C.C. cars in operation as of January 1, 1940. These had operated a total of 7,137,594 miles. 34 more cars were added in the summer of 1940.

The P.C.C. cars provide complete base schedules on the 14th Street and Mount Pleasant lines, which carry 5000 and 4100 passengers, respectively, per hour past the point of maximum movement. They provide approximately all the base service on the Maryland line and a little more than 50% of the base service on the 7th Street line. The cars used for peak service on these lines are a mixture of two- and four-motor cars with drum control.

#### FASTER SCHEDULE SPEEDS

In spite of the fact that these cars are operating with older cars, *over-all* schedule speeds have been increased 4.6% for the 14th Street and Maryland lines, 3.8% for the Mount Pleasant line, and 3.2% for the 7th Street line.

#### **CUT PLATFORM EXPENSES UP TO 37%**

The P.C.C. cars are one-man operated. Consequently, platform expense per car-mile has been reduced 35% on the Mount Pleasant and 7th Street lines and 37% on the 14th Street line. A reduction of 22% has been effected on the Maryland line, but this was partially one-man operated before the installation of P.C.C. cars.

#### ACCIDENTS REDUCED AS MUCH AS 30%

On the Mount Pleasant line, accidents have been reduced 15%. On the 14th Street line, on which P.C.C. cars have been in service longest, accidents have been decreased 30%. This record is particularly remarkable in view of the fact that this line has the heaviest passenger traffic and operates through heavily congested areas.

#### MAINTENANCE COSTS VERY FAVORABLE



Maintenance charged to Account 30—including painting; repairs to car bodies, trucks, and braking equipment; and car-barn repair work—has been 1.04¢ per car-mile compared with 1.49¢ per carmile for 20 streamlined cars purchased in 1935 and 2.20¢ per car-mile for old-type cars.

Charges to Account 33—including car motors, miscellaneous power apparatus, and car-barn repair work—are 0.52¢ per car-mile compared with 0.75¢ per car-mile for 20 streamlined cars and 0.84¢ per

car-mile for old-type cars. This makes the total maintenance cost for the P.C.C. cars approximately half that for the old cars—1.56¢ per car-mile compared with 2.24¢ for the 20 streamlined cars and 3.04¢ for the old cars.





philadelphia-

#### P.C.C. CARS PLACED IN OPERATION IN 1938

The Philadelphia Transportation Company (formerly the Philadelphia Rapid Transit Company) placed 20 P.C.C. cars in operation on August 14, 1938. They were to furnish complete service on Route 53.

#### **THREE BRILLINERS ADDED**

In October, 1939, the company added three Brilliners to the service on this route in order to take care of increased riding. The P.C.C. cars and Brilliners have operated a total of 1,400,000 miles to June 1, 1940.

#### **NET REVENUE INCREASED 16%**



For the first year of P.C.C. car operation the receipts on Route 53 averaged 21% above those of the previous year, contrasted to a 1% decrease on the system as a whole. However, previous to the installation of the P.C.C. cars, the line was running 5.5% better than the entire system, which indicates a net improvement (considering the 1% drop for the system) of more than 16%. This increase in riding, as well as the increase in schedule speed, is particularly remarkable since the cars replaced were only 12 years old.

#### **SCHEDULE SPEED UP 15%**



All the average schedule speeds on this line have been increased 15% as a result of the fast acceleration and ample braking power of the new cars compared with the old type cars. This permits a decrease in headways with the same number of cars or a decrease in the number of cars with the same headways. In spite of this increased schedule speed and the increased riding, the management reports that accidents have decreased considerably.

#### 130 MORE P.C.C. CARS ORDERED

What the Philadelphia Transportation Company thinks of modern street cars is clearly demonstrated by the fact that it started a big modernization program in the summer of 1940 with an order for 130 more.



### FROM THESE RECORDS IT IS CLEAR THAT, IN THEIR ECONOMIC FIELD

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### • EARN THE MOST MONEY FOR OPERATORS

## • GIVE THE PEOPLE TRANS-PORTATION THAT THEY WILL USE AND ENJOY

