

# Transportation Distribution



The transportation distribution pays \$32/month per person (2018 dollars). \$16/month subsidizes an [auto pass](#) and \$16/month subsidizes a transit pass. Unused subsidy money is distributed as revenue, boosting the consumer power of those who do hold passes.

The universal auto pass costs \$64/month/vehicle. 4 people sharing a vehicle would have no additional cost beyond that paid by the distribution. Those sharing an auto pass need not be members of the same household or of legal driving age.

Truck passes cost considerably more as they create additional wear and tear and take up more space on the road and to park. Motorcycle passes would cost only \$16/month and be free with the [Earth Dividend](#).

The universal transit pass costs \$32/month/person. To receive a universal transit pass, a person must put up \$16/month of their own money.

## **Auto Pass**

The pass is associated with the vehicle and vehicle identification number (VIN). The license plate number is the pass ID, and must be visible on the front and rear bumpers as well as in some machine-readable form on the top of the car. A transponder, manufactured with the car, emits the VIN, which must match the visible pass in the auto registry database. 96% of the auto pass revenue is distributed, with the other 4% paying for auto registry operations cost.

Auto pass readers are found at traffic signals and at the entrances to freeways, garages, gas stations, parking lots, bridges, and tunnels. When an auto passes through a reader, the owner of the byway registers a time claim on the auto pass revenue. The claim remains in effect until the automobile passes through another reader.

Associated with each claim is a claim weight. Claim weights might be 1x for parking lots, gas stations, car washes, and auto repair, 2x for multi-level garages, 3x for stop-and-go roads, 5x for expressways, 8x for tunnels, and 13x for bridges. The formula for remuneration to a byway owner is

$$96\% \text{ Auto Pass Cost} \times \frac{\text{total auto subsidy money}}{\text{used auto subsidy money}} \times \frac{\text{Byway Claim Time} \times \text{Byway Claim Weight}}{\sum (\text{Claim Time} \times \text{Claim Weight})}$$

The auto pass has byway owners competing for your travel and parking. Privatization of roads becomes profitable. City roads are revenue sources and are kept well-maintained. Parking downtown ceases to be a problem. No more “parking for customers only” signs.

There is plenty of money to maintain bridges and tunnels. When you park in your own garage at night, the time spent in your garage is your claim to the auto pass revenue, helping to pay for future transportation passes.

## Transit Pass

The transit pass is associated with a [VIP identity](#). It allows free transportation on public transit and free or reduced cost on commuter railroads, interstate and high speed rail, even airlines.

There are weights associated with different modes of transportation. 1x for ridesharing and taxis, 2x for buses and light rail, 3x for rapid transit, 5x for commuter railroads, 8x for long-distance heavy rail, high-speed rail, and air travel less than 300 miles, and 13x for long-distance air travel.

100% of the cost of a pass and unused subsidies go to transit providers. The pass is a free service of the [VIP environment](#) supported by the Earth Dividend.

The revenue associated with a single pass is:

$\text{Pass Revenue} = \$32 + \$16 \times \frac{\text{Total Subsidies} - \text{Number of Passes}}{\text{Number of Passes}}$ . Pass revenue received for a transit ride is  $\text{Pass Revenue} \times \frac{\text{Claim Weight}}{\sum \text{Claim Weight}}$ . Pass revenue can be arbitrarily high if few take advantage of the transit pass. Yet if more people take advantage of the pass, total revenues increase and economies of scale reduce costs.

Although the domain of revenue distribution and pass use is likely to be [federation](#)-wide, an example in a single city shows the power of the transit distribution. Consider a city with population 100,000, with 5% (5,000) purchasing a transit pass.

The pass revenue would be  $\$32 + \$16 \times 95,000/5,000 = \$336$ . If a rider used the pass only for 46 bus rides in a month, each ride would bring the bus company \$7.30 in revenue. If all transit pass holders did exactly the same, total monthly revenue for the bus company would be  $\$336 \times 5,000 = \$1.68$  million.

Suppose everybody in town bought a transit pass and used it only for 46 bus rides in a month. Pass revenue would be only \$32 and revenue per ride would be only \$0.70. However, the buses would be full, come every 5 minutes, the streets would be free of traffic, and the total monthly revenue for the bus company would be \$3.2 million.