

I. Facts

This past weekend, I paid a visit to some friends living in Port Orchard, which is located just a short distance from Seattle, WA. After arriving at the train station in Seattle, I had to take a ferry across Puget Sound in order to reach Port Orchard. The ferry, which is equipped to transport both passengers and cars across the Sound, makes two stops before returning to the Fauntleroy Terminal in Seattle. The first of these is Vashon Island, home to a large but isolated community for whom the ferry is the only transport to and from the mainland. The second is Southworth, which is just a short drive away from Port Orchard. The cost of riding the ferry as a passenger is \$4.45 from Fauntleroy to Vashon, and \$5.30 from Fauntleroy to Southworth. The cost of bringing a car on board the ferry varies between seasons, but at the time I was visiting it was \$15.20 to get to Vashon and \$9.15 to get to Southworth. This cost covers the driver of the car, but does not cover any additional passengers that he/she might be carrying.

The first time I crossed the Sound, I was accompanied by a friend, who I will refer to as J. J, who rides the ferry on a daily basis, told me that I would only have to pay for the trip across, and not the trip back. Naturally, I assumed that this was because the \$5.30 fee paid for a round trip. J, however, informed me that this is not the case; no ticket is required to board the ferry at Southworth, regardless of destination. Even more interestingly, he told me that cars departing from Southworth were still charged the \$9.15 fee to get to Fauntleroy, even though passengers riding without a car were allowed to ride for free.

The next day, we decided to go back to the city to watch a play, and I discovered that the ferry is not the only way to get from Port Orchard to Seattle. J, who didn't want to deal with Seattle's public transportation, decided to take the car. However, he also didn't want to pay the fee to take the car on board the ferry, so we ended up taking Route 16, which crosses the Sound at Tacoma Narrows. We were charged a toll of \$3.25 at the Tacoma Narrows bridge, but in the end the trip was less expensive than taking the ferry, though it was more time-consuming. By the time the play ended, J was feeling too tired to attempt the highway at night, so we ended up paying the \$9.15 fee to have the car taken back to Southworth via the ferry, plus an additional \$5.30 for me to ride as a passenger.

II. Questions.

1. Why are passengers boarding at Southworth allowed to ride for free?
2. Why *aren't* cars boarding at Southworth allowed to ride for free?

III. Analysis

According to the Washington State Department of Transportation website, there are three ferries operating between Fauntleroy and Southworth: The Tillikum, The Sealh, and the Issaguah. These are fixed inputs, and unless the company purchases additional ferries, it will be impossible to accommodate passengers beyond the capacity of the three existing boats. Furthermore, the level of supply remains fixed in the short run, even when demand drops, since each ferry must continue to run on schedule even when carrying less than its maximum capacity. In the long run, perhaps, the company might decide to decommission one of its boats in response to a substantial decrease in demand, but it is unlikely to consider this option in the short run. Given that supply is reasonably inflexible in this case, it is safe to assume that the price of transit is primarily dependent upon demand. Therefore, we should examine the factors that influence consumer choice in order to answer the above questions regarding transit fees.

Transportation to and from Seattle is a necessity for many people: for example, students and commuters. However, those with cars also have the option of taking Route 16; in other words, it is a *substitute* for riding the ferry. We could therefore expect an increase in the toll at the Tacoma Narrows bridge (or, for that matter, an increase in the price of gasoline) to decrease traffic on Route 16 and increase demand for ferry service. Furthermore, price is not the only factor which might influence an individual's choice between the highway and the ferry; as in the case of J, some drivers find the toll charged at the bridge preferable to the fee charged on the ferry, while others might base their decision on the time of day, weather conditions, or even their physical or emotional state.

The important distinction here is that drivers can choose how they get to the city and back, while passengers traveling on foot cannot. If a driver takes the ferry from Southworth to Fauntleroy, he can decide to return via Route 16, or vice versa. However, if the same driver decides to leave the car at home and take the ferry as a passenger, he has no choice but to return via the ferry, since he can't drive on Route 16 without a car. In other words, the two services are not substitutes for passengers without

cars, and it is impossible for anyone traveling on foot to take advantage of free ferry service, since they would have to pay the transit fee for at least one leg of the journey. It is possible that this is why passengers are not charged a fee when departing from Southworth; the company understands that it can save on the capital investment of building and maintaining ticket-selling facilities on that side of the Sound without losing income on ticket sales.

In the case of drivers, however, the ferry service is in direct competition with Route 16. Therefore, ticket vendors must charge transit fees for cars on both sides of the Sound to prevent drivers taking advantage of free service in one direction. It is important to note that there are separate vending facilities for drivers and passengers on foot at the Fauntleroy terminal; drivers pay at tollbooth-style kiosks, while the ticket vendor for passengers is located inside a small building with a waiting room. Therefore, the capital savings theory for free travel from Southworth still holds up. Given that I only have a limited set of economic tools available to me, this seems to be an adequate explanation for the pricing phenomena that I observed on my trip to Port Orchard.