

Theory Behind the Law of Accessibility for Edge Cities

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Abstract

In this paper, we show that the Law of Accessibility is derived from the Golden Mean Parabola.

1. Introduction

I'm aware of some commuters who surprised me by their tolerance for commute times. One fellow, an engineer, drove by automobile every day from Fredericton to Saint John -a 1:15 drive -every day. Why not just move to Saint John, especially considering that he worked for the municipality? Another commuter at the extreme is a fellow who lived in Moncton and drove from there to Saint John and on to Pt Lepreau to work at the nuclear generating station, a 2-hour and 20-minute drive every day, twice a day. Another man I knew who was doing his MBA drive 3a 3 hour drive every second weekend from Saint John to Halifax. And one of his classmates flew from St John's NFLD to Halifax every second week for two years. The drive to the Halifax Airport from downtown is 35 minutes. The flight from St John's to Halifax is 2:16 minutes. That's approaching a 3-hour trip every second weekend. In the Edge City, Garreau reports something called the Law of Accessibility. He postulates that the "choke point" for edge city accessibility is 1.5 hours for a drive for the CEO to the Office and 3 hours for a flight, although he admits that those times may vary. I suggest the maximum drive is 1 hour. The maximum travel time by plane is a 35-minute drive to the airport on each end and a 2-hour flight.

This is modelled by our ubiquitous Golden Mean Parabola.

$$t^2 - t - 1 = E = s$$

$$t^2 - t - 1 = 1$$

$$t^2 - t - 2 = 0$$

$$t = 2; -1$$

$$t_{max} = |2| + |-1| = 3 \text{ hours}$$

Another part of the Edge City Theory is the propensity for companies to locate their offices within an 8-mile radius of where the CEO lives. In Saint John, the city is thinking of high-end executive housing in the backlands of Rockwood Park. There would also be houses for doctors and professors for the hospital and university nearby. The Saint John Airport is within 8 miles of the Bucklands. There is choice virgin land that is bordered by the Kennebecasis River to the north, yet close to amenities that the city has to offer. Rockwood Park itself is a great attraction, along with the golf course. It is near shopping at East Point and is increasingly being serviced by small and big businesses such as McDonald's. It is 5 miles from downtown.

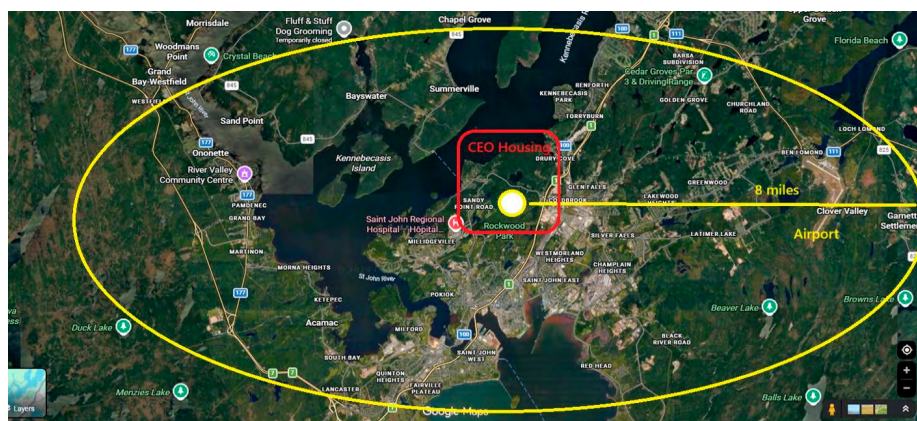


Figure 1: Saint John, NB, Canada

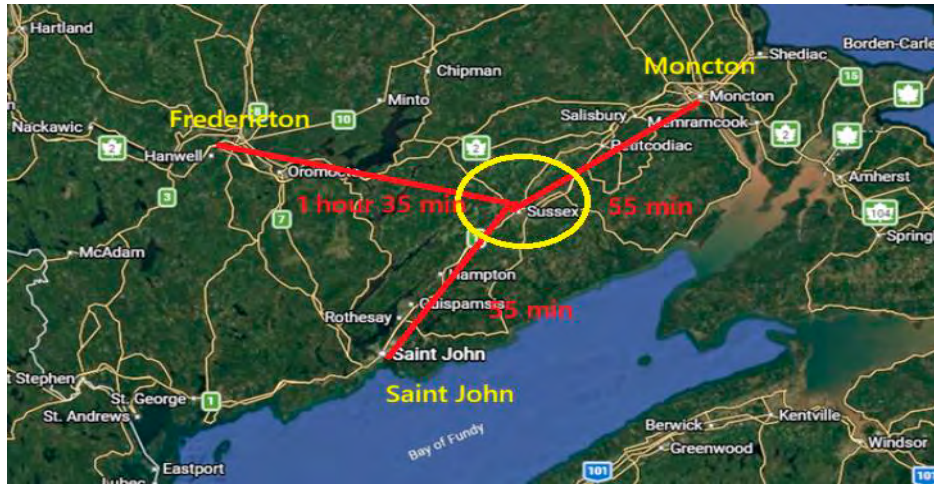


Figure 2: The Drive between Moncton, Saint John, Fredericton, and Sussex is 55 Minutes and 1:15 Minutes. Sussex to be the Location of a Major New Airport

References

1. Garreau, J., Edge City. NY: Anchor Books. 1991.
2. Garreau, J., Edge City: Life on the New Frontier. NY: Random House :1991.

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