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Placement: FCC
Program: Hatfield DC Scholars in Public Service

In April, 2013, I was awarded a Dale Hatfield scholarship working as a summer engineering intern in the Office of Engineering Technology (OET) division of the Federal Communication Commission (FCC). The duration of my internship was a couple days beyond 9 weeks and was unique to the other scholarship participants in that I was the only engineer.

Through the internship, I briefly witnessed the amalgam of economic, technical, and political issues and how they shape and form telecommunication policy. Specifically, I participated and assisted in two programs within the FCC: continued development for Measuring Broadband America (MBA) and radio frequency modeling for Incentive Auctions.

The MBA program commenced three years ago with the overarching goal of measuring the connectivity health of the Internet. This program was initially designed to monitor individual consumer download speeds across various technologies (i.e. DSL, cable, fiber, satellite), Internet Service Providers (ISPs), and billing plans, and comparing those results to advertised download speeds. The success of the program has now been met with proposals for additional Internet connectivity testing. I was tasked with the evaluation of one such proposal. This proposal was put forth by an academic team from Georgia Tech University; from which, in the event of slow connectivity (a traffic bottleneck), the proposal was attempting to determine the granular location of the bottleneck (i.e. either within the ISP network or a home wireless network).

Concurrently to working on the MBA program, I assisted in the evaluation of radio frequency (RF) propagation modeling for digital television (DTV) and LTE signals and as they would apply towards the Incentive Auctions. Understanding interference performance between a DTV transmitter and an LTE base-station receiver is one of the central tenets for the Incentive Auctions.

These two projects exemplify the mission of the FCC. RF interference performance for next year's Incentive Auction is work that will influence near term regulatory policy whereas understanding Internet connectivity is work that will influence long term policy. Witnessing the two actions of near and long term policy has affirmed the idea that government policy is to provide a framework in which a robust, competitive, economic environment can flourish. This was a theme that was consistently presented during the weekly seminars and it was not only until later in the internship that I started to recognize.

Through this internship, I was exposed to a lot of telecommunication industry activities outside and within the FCC. All this exposure helped cement my understanding of the role that the FCC plays in public policy and regulation. I hope that my contribution to the FCC was as useful.