Emergency 311 Service Requests in Miami Dade County

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Abstract

One of the foundations of our government is that every person has a voice, and their input affects how it is run. 311 service requests allow the people to directly notify the local government of problems that need solving in their communities. Our research project used nine years of data on 311 service requests collected from Miami Dade county. We aimed to answer three questions centered specifically around tickets marked as emergencies. Is the department handling the request significant when it comes to ticket completion times? Is the means used to report a ticket significant for the resolution of these requests? Are there any meaningful trends over our nine years of data and can they help us forecast what the future holds? Tree maps, bar graphs, line charts, and other visualizations were created to answer these questions. Along with analysis of variance, and additive forecasting models we were able to draw a few conclusions. Public Works: Right of Way needs attention as it has the longest ticket completion times and the second most tickets. Service requests submitted via Phone are completed over twice as fast on average as those submitted via Web, Email and Cell Phone Apps. Certain departments show clear seasonality involved in tickets received, and others show measurable upward or downward forecasts in total tickets for the upcoming years. Our goal is to use the information we learned to help improve how the county responds to an emergency and help people feel their voice is being heard.