**MAPSCorps Team Productivity Model**

Objective: In order to scale MAPSCorps to other communities, we will need to be able to provide budgets and workforce needs for potential funding organizations. This requires an ability to understand team place mapping productivity on a per hour basis or # of places per hour per team based on the profile of the community in question. We would see this as an effort that could be reasonably be justified under the NYSHF grant.

Key Issues: We believe productivity varies based on a number of factors:

* Place density (which appears to be related to population so more places for more people)
* Steps needed to cover the geography—ie, time to get from place to place
* Weather
* Day of week
* Number of days into the summer program-so faster with more experience
* Quality of Leader management of team-weak leader gets drastically different results than strong leader
* Perception of safety in area

Needs: MAPSCorps will need some type of regression model that determines the relationships of these factors to be able to quickly forecast the workforce needs over a specified mapping timeframe. To be able to do this, data will need to be collected this summer by the mappers. We understand that the metadata collected when the teams enter the place information is not available. So, some surrogates will need to be collected. In addition, it would be great to have some type of going in prediction that the actual productivity could be compared to so we could start honing our assumptions this summer.

Our collection suggestion is:

* General geographic size-square miles by zip code (available online)
* Place density-D&B number of places by zip code (purchase)
* Error rate of D&B data-how many places aren’t found from D&B and how many places are found that aren’t in the D&B
* Weather (daily average in past years during the mapping season)
* Some crime measurement—violent crime arrests?
* Number of hours mapped per day by each team
* Distance walked per day-tracking the steps by the leader on the Iphone is a possibility
* Number of places mapped per day by each team
* Day of the week
* Day number relative to program length (Day 4 of 30 for example)

The most critical of these is some measurement of the distance walked to understand the relationship between density and distance. Our hypothesis is that high density/short distance is largely equivalent to low density/long distance but we need to be able to add more rigor to drive a predictive model.