

NBA Predictions

Lee Richardson, Daren Wang, Xiaofeng Yu, Chi Zhang

Carnegie Mellon University

Goals

- The goal of this project was to predict the outcomes of NBA basketball games as accurately as possible.
- Using individual game prediction algorithms, we can create a distribution of how many games each team is expected to win over the course of a season.

Introduction

- What’s up?

Data

- What’s up?

Features

These are the features we used

Method

For each Census tract in the U.S., we generated micro-data in the following manner:

- ➊ Find aggregate counts for householder age, householder race, household size, and household income from 2007-2011 ACS SF
- ➋ Implement IPFP procedure, similar to that in the one of TransSim by Beckman, Baggerly, and McKay [?]
- ➌ Sample from 2007-2011 PUMS records from corresponding PUMA to generate synthetic data
- ➍ Sample from appropriate spatial polygons to assign a latitude and longitude coordinate, as shown in Figure ??

Algorithms

- Must reconcile geographies defined by different entities
 - e.g. ACS SF are available at tract level
 - PUMS data’s base level is the PUMA

Method

For each Census tract in the U.S., we generated micro-data in the following manner:

- ➊ Find aggregate counts for householder age, householder race, household size, and household income from 2007-2011 ACS SF
- ➋ Implement IPFP procedure, similar to that in the one of TransSim by Beckman, Baggerly, and McKay [?]
- ➌ Sample from 2007-2011 PUMS records from corresponding PUMA to generate synthetic data
- ➍ Sample from appropriate spatial polygons to assign a latitude and longitude coordinate, as shown in Figure ??

Simulations

Hey

Conclusion

Yo

Future Work

Acknowledgements

This research was made possible under NIH Grant MIDAS. We would also like to thank Carnegie Mellon University’s Department of Statistics and the SURE 2014 proram as well as Dr. Bill Eddy for his guidance and support.

Contact Information

- Web: portal.isg.pitt.edu/midas/home.dob
- Email: sgallagh@andrew.cmu.edu