



Rio Das Pedras Summer 2015 Time Estimate

Prepared By:

Daniel M. Sheehan
Geographer, GIS Analyst
Built Environment and Health Research Group
Department of Epidemiology
Columbia University
722 West 168th Street, R735
New York, New York 10032
www.beh.columbia.edu
dms2203@cumc.columbia.edu

Prepared For:

Dr. Gina Lovasi
Assistant Professor of Epidemiology
Built Environment and Health Research Group
Department of Epidemiology
Columbia University
722 West 168th Street, R804
New York, New York 10032
www.beh.columbia.edu
glovasi@columbia.edu

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TIME ESTIMATE INTRODUCTION

This time estimate represents the total number of hours required to construct each Type or Category of GIS metric(s) and task(s) for the Rio Das Pedras project for Summer 2015. The tasks are divided into four tasks.

Target Temporal Resolution for Data

The target time to get data for this project is Spring year 2015.

Study Area

Rio Das Pedras and Rio De Janiero, Brazil area (the extent of the study area).

Abbreviations & Acronyms

BEH - Built Environment and Health Group

BEH-GIS - Built Environment and Health Geographic Information Systems Team

RdP - Rio Das Pedras

SSO - Systematic Social Observation

TASKS OVERVIEW

1. Map Sampling grid for developing more accurate home locations

This task is required to develop more accurate home locations for the study participants. The Sampling grid locations were used to target homes, then homes were selected in the field. Notes and field observations will be used to refine the home location.

- Create Maps of the Sampling Grid

SUMMARY BY SUBTASK MAP SAMPLING GRID

SubTask	Low Estimate	High Estimate
Map Sampling Grid		2
Total:	2	3

Green items are completed.

2. Clean GPX data to create tabular data for each participant

Create tabular data and corresponding data dictionary for each participant that includes number of recorded points, number of days with any points, size of convex hull traveled within RdP (following methods developed during PATS analyses), % of time estimated to have been spent outside of RdP boundaries.

GPS Descriptive Stats

- Number of recorded points.
- Number of days with any points.

GPS Points Geoprocessing

- Associate points with in/out RdP boundary and distance from RdP boundary if outside RdP.
- Percent of time estimated to have been spent outside of RdP boundaries.
- Snap to grid point for home. May require manual entry from Task 1.
- Distance from home for each point.
- Create convex hull for subjects within RdP.
- Calculate size of convex hull traveled within RdP (following methods developed during PATS analyses).

Neighborhood Geographies

CONVEX NEIGHBORHOOD HULLS IN RIO DAS PEDRAS

SUMMARY BY SUBTASK TABULAR DATA FOR PARTICIPANTS

SubTask	Low Estimate	High Estimate
Number of recorded points	2	4
Number of days with any points	2	4
Associate points with in/out RdP boundary and distance from RdP boundary if outside RdP	8	16
Percent of time outside of RdP boundaries	8	16
Snap to grid point for home	6	12
Distance from home for each point	6	12
Create convex hull for subjects	4	8
Calculate size of convex hull within RdP	2	4
Total:	38	76

Green items are completed.

3. Create 2-5 mapped visualizations of systematic social observation data from fulcrum.

Create 2-5 mapped visualizations of systematic social observation data from the 646 street observations captured through fulcrum. These maps may look like a smaller version of the journal of maps physical disorder, incorporating illustrative geotagged photos. Goals of these maps could be to illustrate a spatial pattern in water/soil stability related problems, or to spotlight commercial resources including produce access.

- 5 maps (2 options)
 - 1a - 5 maps with points.
 - 1b - 5 maps with street segments (line segments).
 - Clean and correct street segment data. Lead or inform our process to finalize digitization of area boundaries and streets, incorporating corrections noted in the field.
 - Snap point data to correct street segment data.
- Elevation - look for elevation data and spatial join with GPS points.

SUMMARY BY SUBTASK MAPPED VISUALIZATIONS OF SYSTEMATIC SOCIAL OBSERVATION (SSO)

SubTask	Low Estimate	High Estimate	Low w/ 1b	High w/ 1b
1a - 5 maps with points	16	24	16	24
1b - 5 maps with street segments (line segments) • Clean and correct street segment data	0	0	24	30
• Snap point data to correct street segment data	0	0	8	16
Elevation	8	16	8	16
Total:	24	40	56	86

Note: Since most maps require some degree of revisions, revision time has been included in the estimate.

4. Map visualizations that protect confidentiality of individual subjects while illustrating the contrasting mobility patterns observed.

Generate 2-4 map visualizations that protect confidentiality of individual subjects while illustrating the contrasting mobility patterns observed.

- From Nucleo as the home.
- Generate False points from Nucleo.

SUMMARY BY SUBTASK MAP VISUALIZATIONS THAT PROTECT CONFIDENTIALLY

SubTask	Low Estimate	High Estimate
Generate False points from Nucleo	16	24
Map mobility pattern examples	16	24
Total:	32	48

Time Estimate Totals

TASK TIME ESTIMATE TOTALS

	Low Estimate	High Estimate	Low w/ 1b	High w/ 1b
1. Map Sampling Grid	2	3	2	3
2. Tabular Data for Participants	4	8	4	8
3. Mapped Visualizations of Systematic Social Observation (SSO)	24	40	56	86
4. Map Visualizations that protect confidentiality	32	48	32	48
Total in Hours:	62	99	94	145
Total in Days:	7.75	12.375	11.75	18.125
Total in Weeks:	1.55	2.475	2.35	3.625

Italic cells mean they do not change by adding option 1b from Task 3. Green items are completed.

The above table is an estimate of the time for the listed tasks. If there is any major deviation from the time estimate the project coordinator or investigator will be informed and this document will be updated and distributed accordingly.