TransBASE:

Linking Transportation Systems to Our Health

The Centers for Disease Control and Prevention (CDC) provided funding for this project through the Health Impact Assessment to Foster Healthy Community Design grant.

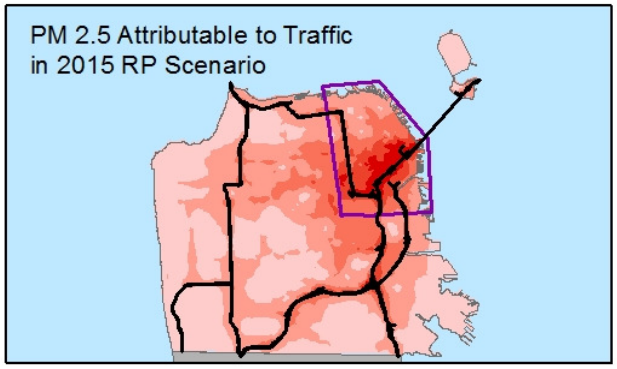
Devan Morris
Devan.Morris@sfdph.org

SFDPH Environmental HEALTH
improving environments protecting health

Overview

1. Origin
2. Fundamentals
3. Applications
4. Destination

Road Congestion Pricing HIA



Asks - What are potential health impacts of:

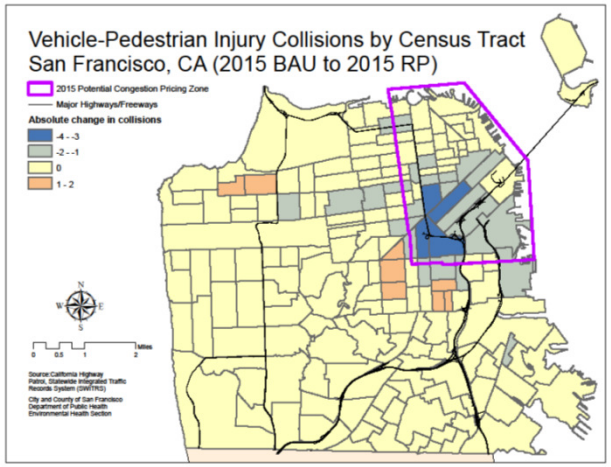
a future with the "best performing" pricing scenario *versus*
a future under "business as usual" *compared to* existing conditions

Analyzes - Potential impacts on:

Lives Saved from Walking/Cycling
Air Pollution-related Premature Mortality
Traffic Noise-Related Annoyance and Heart Attacks
Pedestrian and Cyclist Injury Collisions
Exposure to Traffic Density by Age and Income
Economic Value of Health Benefits and Burdens

Recommends – Policy considerations for more health benefits:

Increase congestion pricing fees where they can reduce health risks; target walking and biking safety improvements where injuries are greatest; target deployment of quieter, low-emission hybrid buses in areas where noise and air pollution are worse



This work was conducted with financial support from the Robert Wood Johnson Foundation's Active Living Research Program.

CASE_ID, ACCIDENT_YEAR, PROC_DATE, JURIS, COLLISION_DATE, COLLISION_TIME, OFFICER_ID, REPORTING_DISTRICT, DAY_OF_WEEK, CHP_SHIFT, POPULATION, CNTY_CITY_LOC, SPECIAL_COND, BEAT_TYPE, CHP_BEAT_TYPE, CITY_DIVISION_LAPD, CHP_BEAT_CLASS, BEAT_NUMBER, PRIMARY_RD, SECONDARY_RD, DISTANC
WEATHER_1, WEATHER_2, STATE_HWY_IND, CALTRANS_COUNTY, CALTRANS_DISTRICT, STATE_ROUTE, ROUTE_SUFFIX, POSTMILE_PREFIX, POSTMILE, LOCATION_TYPE, RAMP_INTERSECTION, SIDE_OF_HWY, TOW_AWAY, COLLISION_SEVERITY, NUMBER_KILLED, NUMBER_INJURED, PARTY_COUNT, PRIMARY_COLL_FACTOR,
PCF_VIOL_CATEGORY, PCF_VIOLATION, PCF_VIOL_SUBSECTION, HIT_AND_RUN, TYPE_OF_COLLISION, MVIW, PED_ACTION, ROAD_SURFACE, ROAD_COND_1, ROAD_COND_2, LIGHTING, CONTROL_DEVICE, CHP_ROAD_TYPE, PEDESTRIAN_ACCIDENT, BICYCLE_ACCIDENT, MOTORCYCLE_ACCIDENT, TRUCK_ACCIDENT, NOT_PR
ALCOHOL_INVOLVED, STWD_VEHTYPE_AT_FAULT, CHP_VEHTYPE_AT_FAULT, COUNT_SEVERE_INJ, COUNT_VISIBLE_INJ, COUNT_COMPLAINT_PAIN, COUNT_PED_KILLED, COUNT_PED_INJURED, COUNT_BICYCLIST_KILLED, COUNT_BICYCLIST_INJURED, COUNT_MC_KILLED, COUNT_MC_INJURED, PRIMARY_RAMP, SECONDAR
LONGITUDE, CASE_ID, PARTY_NUMBER, PARTY_TYPE, AT_FAULT, PARTY_SEX, PARTY_AGE, PARTY_SOBRIETY, PARTY_DRUG_PHYSICAL, DIR_OF_TRAVEL, PARTY_SAFETY_EQUIP_1, PARTY_SAFETY_EQUIP_2, FINAN_RESPONS, SP_INFO_1, SP_INFO_2, SP_INFO_3, OAF_VIOLATION_CODE, OAF_VIOL_CAT, OAF_VIOL_SECTION, OA
OAF_2, PARTY_NUMBER_KILLED, PARTY_NUMBER_INJURED, MOVE_PRE_ACC, VEHICLE_YEAR, VEHICLE_MAKE, STWD_VEHICLE_TYPE, CHP_VEH_TYPE_TOWING, CHP_VEH_TYPE_TOWED, RACE, INATTENTION, SPECIAL_INFO_F, SPECIAL_INFO_G, VICTIM_ROLE, VICTIM_SEX, VICTIM_AGE, VICTIM_DEGREE_OF_INJURY, VICTIM_
VICTIM_SAFETY_EQUIP_1, VICTIM_SAFETY_EQUIP_2, VICTIM_EJECTED, BusVol_05, DailyRideQtr, DailyRideEst, Ped_Vol24h, SpeedAvgMTA, Veh_Vol24h, Access/Need to Walk Score, Transit Ridership Score, Density of People Score, Pedestrian Generators Score, Vulnerable Populations Score, Income Score, Street Slope Score, Total cate
walking street (Key/NA), Key walking area, Survey method (S = Speed Radar, RO = Pneumatic Tube), Primary street survey took place on, Cross street where suvey started\ended, Cross street where suvey started\ended, Survey notes, Survey date, Direction (North, South, East or West Bound), Weighted average speed of survey data, Speed limit of
DPW data, Speed limit SFCTA, Speed limit SFMTC, Count vehicles traveling less than 15 MPH, Count vehicles traveling between 15 and 19 MPH, Count vehicles traveling between 20 and 24 MPH, Count vehicles traveling between 25 and 29 MPH, Count vehicles traveling between 30 and 34 MPH, Count vehicles traveling between 35 and 39 MP
between 40 and 44 MPH, Count vehicles traveling between 45 and 49 MPH, Count vehicles traveling between 50+ MPH, Total count of vehicles taken in survey period, Presence of bike lane at intersection (Y/N), Number of bulbouts on segment , Caltrans street (yes/no), Number of channelized streets , Number of chicanes within quarter mile rad
quarter mile radius, Number of Auto Lanes during AM Peak, Number of Auto Lanes during non-peaks, Number of Auto Lanes during PM Peak, Length of segment in miles , Length of segment in miles (modified to account for sausage streets) , Presence of median on street segment , Presence of Muni line on street segment(Y/N), Number of muni sto
street (yes/no), Number of off-street parking spots on segments (buffered 70 feet) , Number of off-street parking spots on segments Corrected (joined to CNN, not buffered), Number of on-street parking spots on segments , Number of metered on-street parking spots , Presence of metered on-street parking spots , Number of PUC lights at intersec
(yes/no), Presence of a regional station within a quarter mile of segment , Sausage street segment (1=yes, 0=no), Unique sausage street number used to account for double counted data, Slope of street segment (between 0 and 90 degrees) , Speed limit on street segment , Number of speed cushions on street segment , Number of speed humps on stre
radar signs on street segment, Street width (feet), Number of traffic circles on street segment, Number of traffic islands on street segment, Number of traffic calming features on street segment , Number of trees on street segment, Truck route present on street segment(yes/no), Proportion of Industrial PDR zoning within a quarter mile of intr
commerical zoning within a quarter mile of intersection , Proportion of mixed use within a quarter mile of intersection , Proportion of neighborhood commercial zoning within a quarter mile of intersection , Proportion of residential zoning within a quarter mile of intersection , Proportion of residential Mixed Use zoning within a quarter mile o
Redevelopment zoning within a quarter mile of intersection , Proportion of public use zoning within a quarter mile of intersection , Sum of all zones within a quarter mile of intersection , Sum of bus volume of all crossing roads at intersection per day , Bike trips from origin 2005 (TAZ level), Bike trips from origin 2005 (TAZ district level), Estimat
quarter mile from the intersection, Estimated number of daily ridership per eighth mile from the intersection, Model 6 estimated yearly pedestrian volume, Model 6 estimated daily pedestrian volume, Walk trips from origin 2005 (TAZ level), Walk trips from origin 2005 (TAZ district level), Maximum V24 on segment passing through intersection in
passing through intersection in 2005, Sum of daily vehicle traffic (V24) on segment passing through intersection in 2005, Presence of bike lane at intersection (Y/N), Number of other intersections within a quarter mile of given intersection, Number of Auto Lanes during AM Peak, Number of Auto Lanes during non-peaks, Number of Auto Lanes
number of Auto Lanes during AM Peak, Maximum number of Auto Lanes during non-peaks, Maximum number of Auto Lanes during PM Peak, Number of legs at intersection, Presence of a LeftTurn Restriction Sign (YES/NO), Number of Muni lines that cross the intersection , Presence of Muni line at intersection (Y/N), Number of muni stops within
Presence of a one-way street at intersection (Y/N), Number of off-street parking spots on segments at intersection, Number of on-street parking spots on segments at intersection, Presence of metered on-street parking spots at intersection, Number of PUC lights at intersection , Number of ramps within quarter mile, ID of closest ramp to link s
ramp in feet to intersection, Number of regional bus stops within 100 feet of intersection , Number of regional stations within a quarter mile of intersection, ID of closest regional transit station to link back to transit station shapefile, Distance in feet of nearest regional transit station to intersection, Singlized intersection (yes/no), Presence of
signal at intersection (yes/no), Presence of pedestrian countdown signal at intersection (yes/no), Presence of stop sign at intersection (yes/no), Maximum slope of a leg at intersection, Maximum speed limit at intersection, Minimum street width at intersection, Number of trees within a quarter mile of intersec
foot radius of intersection, Number of trees within 100 foot radius of intersection, Number of trees within 150 foot radius of intersection, Presence of Traffic calming features at intersection (yes/no), Truck route present at intersection (yes/no), Presence of Continental Crosswalk (yes/no), Presence of either a mid-block, school, or continental
Block Crosswalk (yes/no), Presence of School Crosswalk (yes/no), Number of elementary schools within a quarter mile of intersection, ID of closest elementary school to link back to schools shapefile, Distance in feet of nearest elementary school to intersection, Number of middle schools within a quarter mile of intersection, ID of closest middl
shapefile, Distance in feet of nearest middle school to intersection, Number of high schools within a quarter mile of intersection, ID of closest high school to link back to schools shapefile, Distance in feet of nearest high school to intersection, Number of major universities within a quarter mile, ID of closest university to link back to university sh
major university to intersection, Number of Public/Private schools within a quarter mile of intersection, ID of closest Public/Private school to link back to schools shapefile, Name of closest Public/Private school to link back to schools shapefile, Estimated number of people below 200% of the poverty line within 1/4 mile of each intersection , Es
disabilities within quarter mile of the intersection , Estimated number of employees within a quarter mile of the intersection, Average household income within a quarter mile of the intersection, Estimated number of non-english speakers within a quarter mile of the intersection, Estimated number of people of color within a quarter mile of the inter
people of color living within a quarter mile of intersection , Proportion of ESRI census tract 2009 ages <13 living within a quarter mile of intersection , Proportion of ESRI census tract 2009 ages 13-20 living within a quarter mile of intersection , Proportion of ESRI census tract 2009 ages 21-44 living within a quarter mile of intersection , Prop
ages 45-64 living within a quarter mile of intersection , Proportion of ESRI census tract 2009 ages 65+ living within a quarter mile of intersection , Percent of households at below poverty level 2000, Estimated residential population within a quarter mile of intersection, Estimated number of seniors (65+) within a quarter mile of the intersection
2009, ESRI census tract 20
household income less than
census tract 2009, Age 50
nearest public art to intersection, Distance in feet of nearest public art to intersection, Number of childcare facilities within quarter mile of intersection, ID of nearest childcare center to intersection, Distance in feet of nearest childcare center to intersection, Number of community centers within quarter mile of intersection, ID of nearest comm
Distance in feet of nearest community center to intersection, Number of community gardens within quarter mile of intersection, ID of nearest community garden to intersection, Distance in feet of nearest community garden to intersection, Number of libraries within quarter mile of intersection, ID of nearest library to intersection, Distance in f
intersection, Intersection neighborhood , Number of parks within a quarter mile of intersection, ID of closest park to intersection to link back to parks shapefile, Distance in feet of closest park, Number of post offices within quarter mile of intersection, ID of nearest post office to intersection, Distance in feet of nearest post office to intersection,
mile of intersection, Number of Senior Centers within quarter mile of intersection, Number of alcohol outlets within a quarter mile of intersection, ID of closest alcohol outlet to link back to alcohol shapefile, Distance in feet of nearest alcohol outlet to intersection, Number of auto repair facilities within quarter mile of intersection, ID of n
intersection, Distance in feet of nearest auto repair facility to intersection, Number of banks/credit unions within quarter mile of intersection, ID of nearest bank/credit union to intersection, Distance in feet of nearest bank/credit union to intersection, Number of bike shops within quarter mile of intersection, ID of nearest bike shop to intersectio
shop to intersection, Number of dry cleaners within quarter mile of intersection, ID of nearest dry cleaner to intersection, Distance in feet of nearest dry cleaner to intersection, Number of farmers markets within quarter mile of intersection, ID of nearest farmers market to intersection, Distance in feet of nearest farmers market to intersection,
mile of intersection, ID of nearest gym to intersection, Distance in feet of nearest gym to intersection, Number of hair salons/barber shops within quarter mile of intersection, ID of nearest hair salon/barber shop to intersection, Distance in feet of nearest hair salon/barber shop to intersection, Number of hardwares store within quarter mile of i
hardware store to intersection, Distance in feet of nearest hardware store to intersection, Number of laundromats within quarter mile of intersection, ID of nearest laundromat to intersection, Distance in feet of nearest laundromat to intersection, Number of Pharmacies within quarter mile of intersection, ID of nearest Pharmacies to intersec
Pharmacies to intersection, Number of public health facilities within quarter mile of intersection, ID of nearest public health facility to intersection, Distance in feet of nearest public health facility to intersection, Number of produce markets within quarter mile of intersection, ID of nearest produce market to intersection, Distance in feet of near
intersection, Number of restaurants within quarter mile of intersection, ID of nearest restaurant to intersection, Distance in feet of nearest restaurant to intersection, Number of super markets within quarter mile of intersection, ID of nearest super market to intersection, Distance in feet of nearest super market to intersection, Number of vide
quarter mile of intersection, ID of nearest video store/movie theater to intersection, Distance in feet of nearest video store/movie theater to intersection, Street Name, Street Type, Zip Code, Department Jurisdiction , Neighborhood , Original Street Layer from SFDPW, CNN Text version , Full Street Name, Street name that the street was geocode
3 Major Street 4 Minor Street 5 City Street 6 Freeway Ramp 0 Other, Length of street segment in miles , Sausage street - split into two (Yes/No) , Sausage street number to dissolve by , Address numbers , Address numbers , Address numbers , Address numbers , From node CNN number , To node CNN number , Is the street segment on a pedestrian hi
Street_1_Name, Street_1_CNN, Street_2_Name, Street_2_CNN, Street_3_Name, Street_3_CNN, Street_4_Name, Street_4_CNN, Street_5_Name, Street_5_CNN, Mean speed of segments running through intersection, Highest speed of segments running through intersection, Distance of segments running through intersection, Average of se
Peak, Average of segments Auto Lanes during non-peaks, Average of segments Auto Lanes during PM Peak, Segments mean Congested Travel Speed (mph) in AM Peak Period, Segments max Congested Travel Speed (mph) in AM Peak Period, Segments mean Congested Travel Speed (mph) in MD Peak Period, Segments max Congested Travel Speed (mp
mean Congested Travel Speed (mph) in PM Peak Period, Segments max Congested Travel Speed (mph) in PM Peak Period, Segments mean Congested Travel Speed (mph) in EV Peak Period, Segments max Congested Travel Speed (mph) in EV Peak Period, Segments mean Congested Travel Speed (mph) in EA Peak Period, Segments max Congested Travel
Segment mean Congested Travel Time (minutes) in AM Peak Period, Segment max Congested Travel Time (minutes) in AM Peak Period, Segment mean Congested Travel Time (minutes) in MD Peak Period, Segment max Congested Travel Time (minutes) in MD Peak Period, Segment mean Congested Travel Time (minutes) in PM Peak Period, Segment m
(minutes) in PM Peak Period, Segment mean Congested Travel Time (minutes) in EV Peak Period, Segment max Congested Travel Time (minutes) in EV Peak Period, Segment mean Congested Travel Time (minutes) in EA Peak Period, Segment max Congested Travel Time (minutes) in EA Peak Period, Average # of Drive Alone vehicles thru the intersecti
through intersection, Average # of SR2 vehicles thru the intersection in 3 to 6 am Peak Period through intersection, Average # of SR3+ vehicles thru the intersection in 3 to 6 am Peak Period, Average # of Drive Alone vehicles with value toll in 3 to 6 am Peak Period, Average # of SR2 vehicles thru the intersection with value toll in 3 to 6 am Pe
vehicles thru the intersection with value toll in 3 to 6 am Peak Period, Average # of trucks thru the intersection in 3 to 6 am Peak Period, Average # of trucks with value toll in 3 to 6 am Peak Period, Average # total traffic thru the intersection in 3 to 6 am Peak Period, Average # of Drive Alone vehicles thru the intersection in 6 to 9 am Peak Pe
Average # of SR2 vehicles thru the intersection in 6 to 9 am Peak Period through intersection, Average # of SR3+ vehicles thru the intersection in 6 to 9 am Peak Period, Average # of Drive Alone vehicles with value toll in 6 to 9 am Peak Period, Average # of SR2 vehicles thru the intersection with value toll in 6 to 9 am Peak Period, Average # of
intersection with value toll in 6 to 9 am Peak Period, Average # of trucks thru the intersection in 6 to 9 am Peak Period, Average # of trucks with value toll in 6 to 9 am Peak Period, Average # total traffic thru the intersection in 6 to 9 am Peak Period, Average # of Drive Alone vehicles thru the intersection in 9 am to 3:30 pm Peak Period throug
vehicles thru the intersection in 9 am to 3:30 pm Peak Period through intersection, Average # of SR3+ vehicles thru the intersection in 9 am to 3:30 pm Peak Period, Average # of Drive Alone vehicles with value toll in 9 am to 3:30 pm Peak Period, Average # of SR2 vehicles thru the intersection with value toll in 9 am to 3:30 pm Peak Period, Ave
intersection with value toll in 9 am to 3:30 pm Peak Period, Average # of trucks thru the intersection in 9 am to 3:30 pm Peak Period, Average # of trucks with value toll in 9 am to 3:30 pm Peak Period, Average # total traffic thru the intersection in 9 am to 3:30 pm Peak Period, Average # of Drive Alone vehicles thru the intersection in 3:30 to
intersection, Average # of SR2 vehicles thru the intersection in 3:30 to 6:30 pm Peak Period through intersection, Average # of SR3+ vehicles thru the intersection in 3:30 to 6:30 pm Peak Period, Average # of Drive Alone vehicles with value toll in 3:30 to 6:30 pm Peak Period, Average # of SR2 vehicles thru the intersection with value toll in 3:
Average # of SR3+ vehicles thru the intersection with value toll in 3:30 to 6:30 pm Peak Period, Average # of trucks thru the intersection in 3:30 to 6:30 pm Peak Period, Average # of trucks with value toll in 3:30 to 6:30 pm Peak Period, Average # total traffic thru the intersection in 3:30 to 6:30 pm Peak Period, Average # of Drive Alone vehic
pm to 3 am Peak Period through intersection, Average # of SR2 vehicles thru the intersection in 6:30 pm to 3 am Peak Period through intersection, Average # of SR3+ vehicles thru the intersection in 6:30 pm to 3 am Peak Period, Average # of Drive Alone vehicles with value toll in 6:30 pm to 3 am Peak Period, Average # of SR2 vehicles thru the i
6:30 pm to 3 am Peak Period, Average # of SR3+ vehicles thru the intersection with value toll in 6:30 pm to 3 am Peak Period, Average # of trucks thru the intersection in 6:30 pm to 3 am Peak Period, Average # of trucks with value toll in 6:30 pm to 3 am Peak Period, Average # total traffic thru the intersection in 6:30 pm to 3 am Peak Period, I
traffic thru the intersection over a 24 hour period, Average vehicle miles traveled thru the intersection in AM period, Average vehicle miles traveled thru the intersection in MD period, Average vehicle miles traveled thru the intersection in PM period, Average vehicle miles traveled thru the intersection in EA period, Average vehicle miles traveled
period, Average vehicle miles traveled thru the intersection in 24 hour period, Average vehicle hours traveled thru the intersection in AM period, Average vehicle hours traveled thru the intersection in MD period, Average vehicle hours traveled thru the intersection in PM period, Average vehicle hours traveled thru the intersection in EA period,
thru the intersection in EV period, Average vehicle hours traveled thru the intersection in 24 hour period, Max 24 hour weighted average speed thru intersection, Average 24 hour weighted average speed thru intersection, Instance of Party Type1 (Driver) involved in collision , Instance of Party Type2 (Passanger) involved in collision , Instance

Database: Overwhelming List of Variables

What is TransBASE?

1. **Facilitate a data-driven approach** to understanding and addressing transportation-related health issues, informed by a large and growing evidence base regarding the importance of transportation system design and land use decisions for health.

2. **Serve as a central open source data repository** for all public health related transportation data within San Francisco, and to support interagency collaboration, data standards, and data sharing.

3. **Inform public and private efforts** to improve transportation system safety, sustainability, community health and equity in San Francisco.

TransBASE Objective

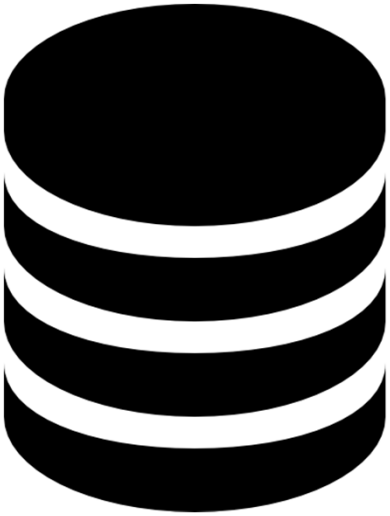
TransBASE

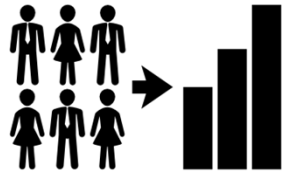
Environmental Data
Infrastructure
Transportation
Community
Business
Demographics
Land Use
Health
Education
...

+

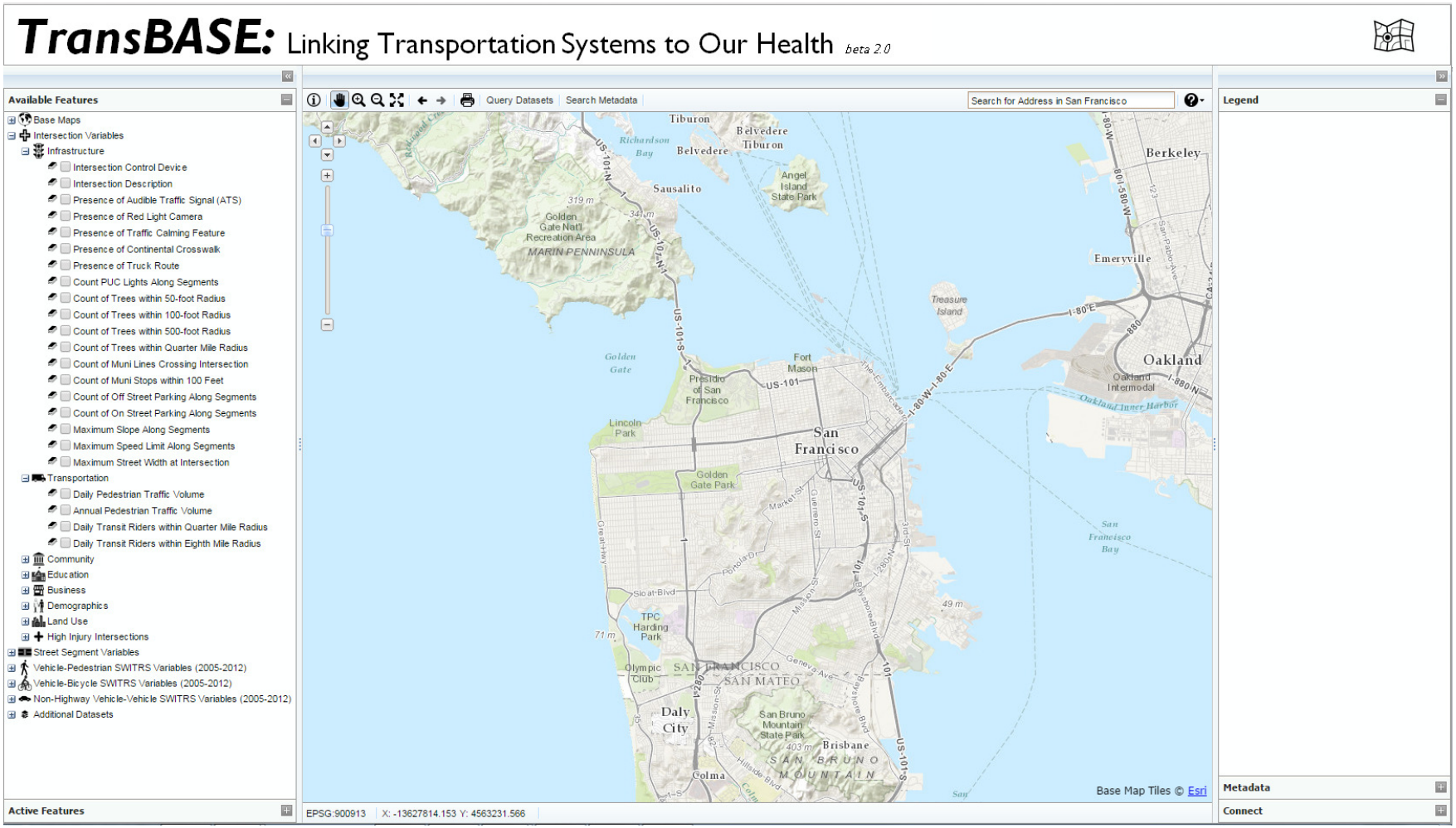
Injury Data
Time
Severity
Age
Gender
Movement
Collision Factors
Sobriety
Code Violation
...

=





Demo (www.transbasesf.org)



Fundamental Goals

Distribution – To the Cloud 

Interoperability – Many platforms 

Accessibility – Make it public 

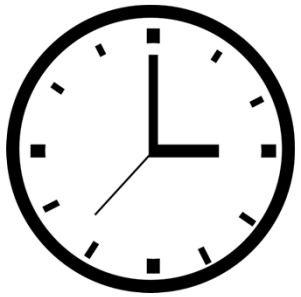
Integration – Other City databases 

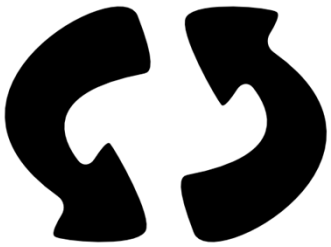
Architecture – Open source 

Flexibility – System design 

Leveraging TransBASE

- **Efficient**
  - Data already processed
  - Documented metadata
- **Collaborative**
  - Datasets from many agencies
  - One centralized location
- **Repeatable**
  - Data queries can be written as scripts
  - Update schedule for data layers



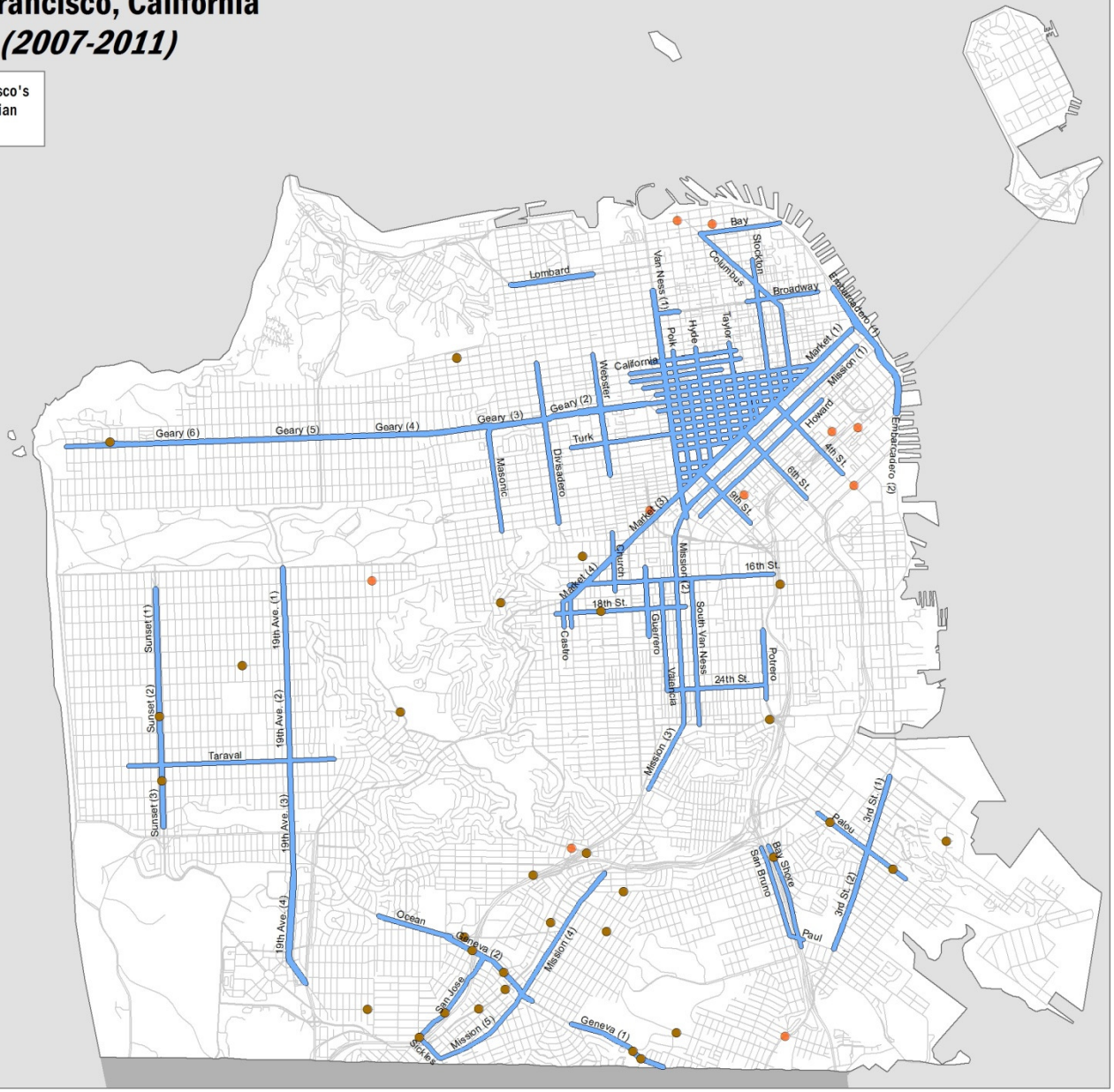


Evolution Health in Transportation Policy

High Injury Corridors: San Francisco, California

Vehicle-Pedestrian Injuries (2007-2011)

High Injury Corridors represent 6% (69 miles) of San Francisco's street miles, where 60% of severe and fatal vehicle-pedestrian injuries occurred in 2007-2011.



High Injury Corridor
High Injury/Pedestrian Volume Intersection
High Injury Intersection

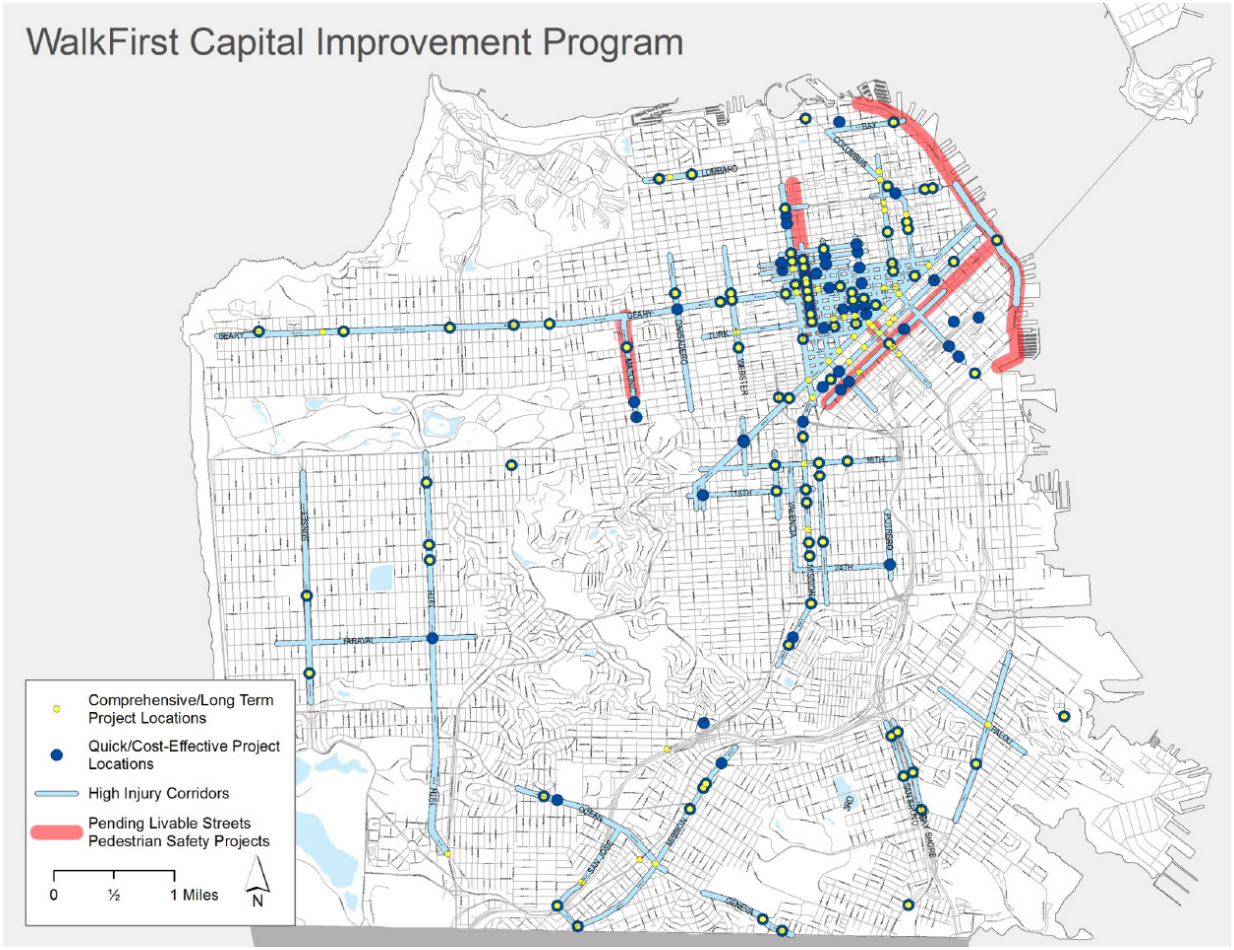
0 0.5 1 2
Miles

Source: SFDPH 2013; Statewide Integrated Traffic Records System (SWITRS) 2007-2011

City and County of San Francisco Department of Public Health: Environmental Health Protection, Equity, and Sustainability
www.sfphes.org

N

Capital Improvements



EFFECTIVENESS: 68%
of severe/fatal injuries on High Injury Network targeted by WalkFirst Pedestrian Safety CIP

COST: $50M
for implementation of WalkFirst Pedestrian Safety CIP

TIMEFRAME: Years 1–5
for implementation of WalkFirst Pedestrian Safety CIP

San Francisco Pedestrian Safety Capital Improvement Program: A Step Towards Vision Zero
March 5, 2014

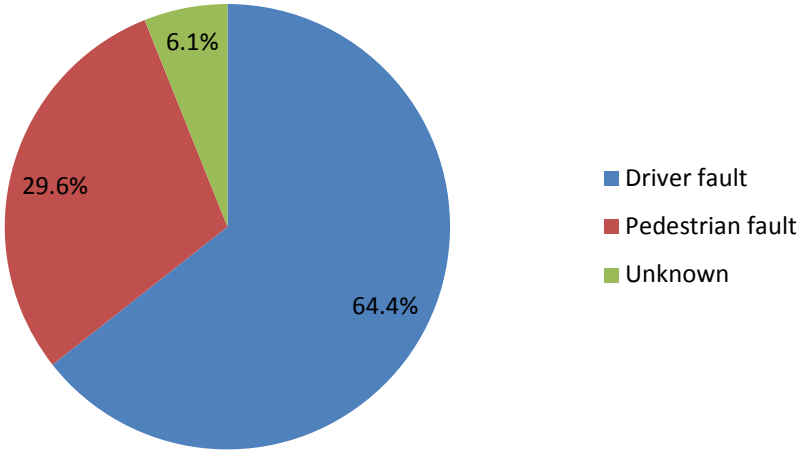
SFMTA Municipal Transportation Agency

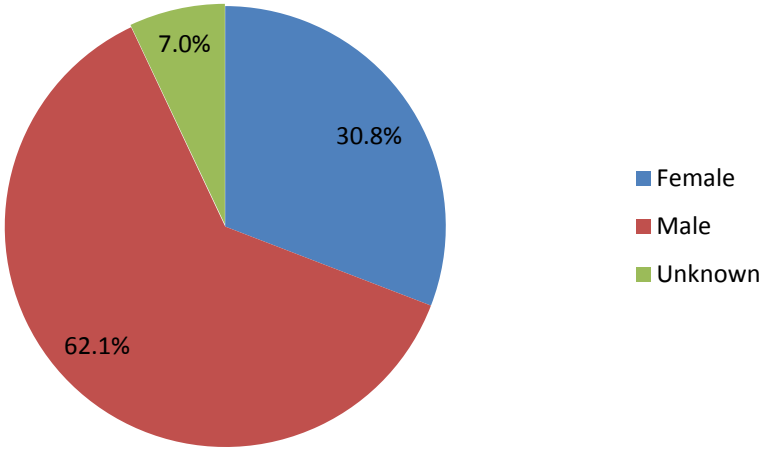
SAN FRANCISCO PLANNING DEPARTMENT

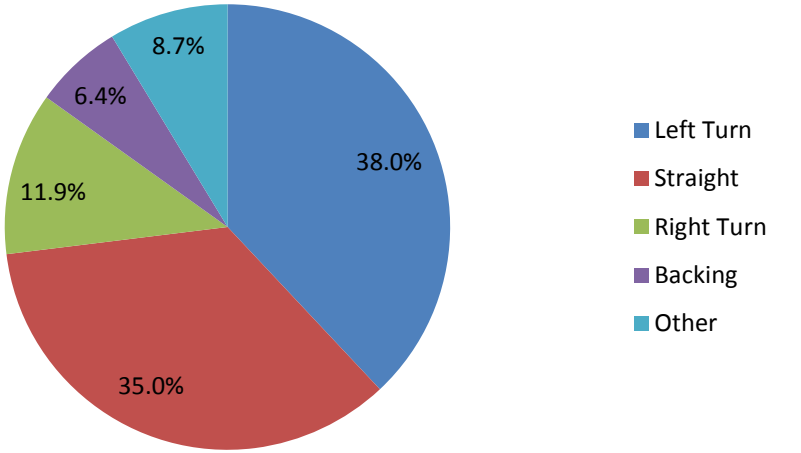
SFDPH Environmental HEALTH
improving environments protecting health

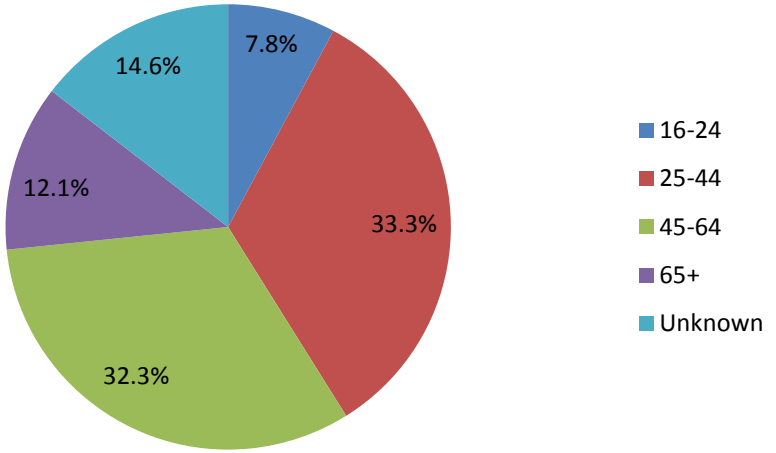
Targeted Enforcement and Education Grant

Who to Target and Educate?

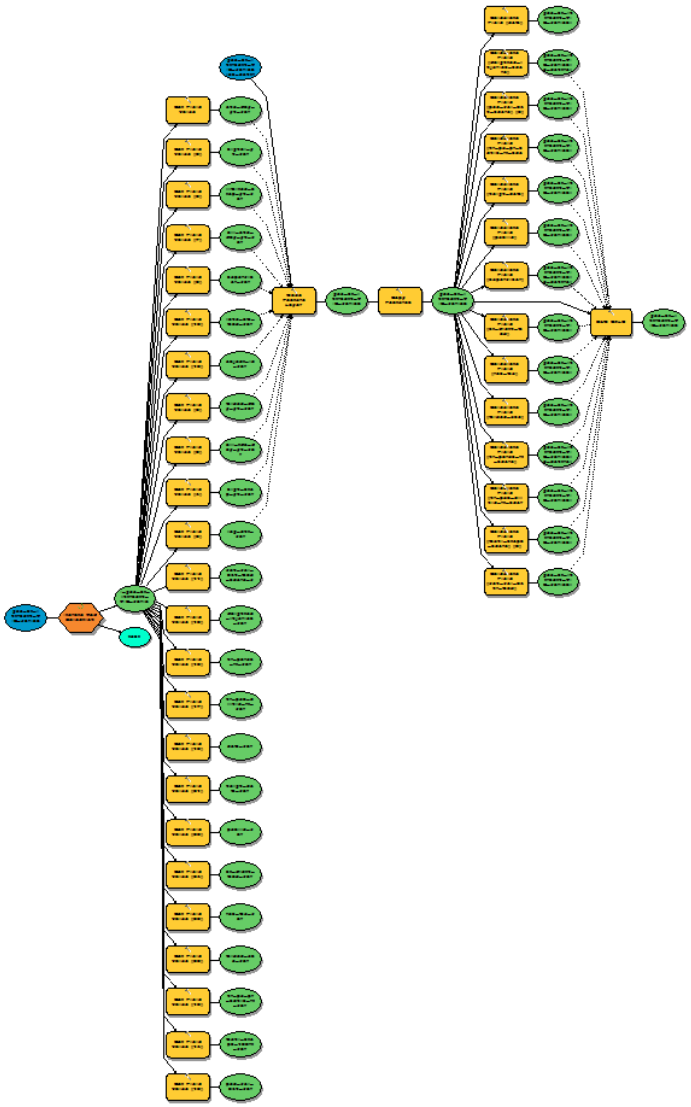








Intersection Self-Similarity Model



Real World Comparison

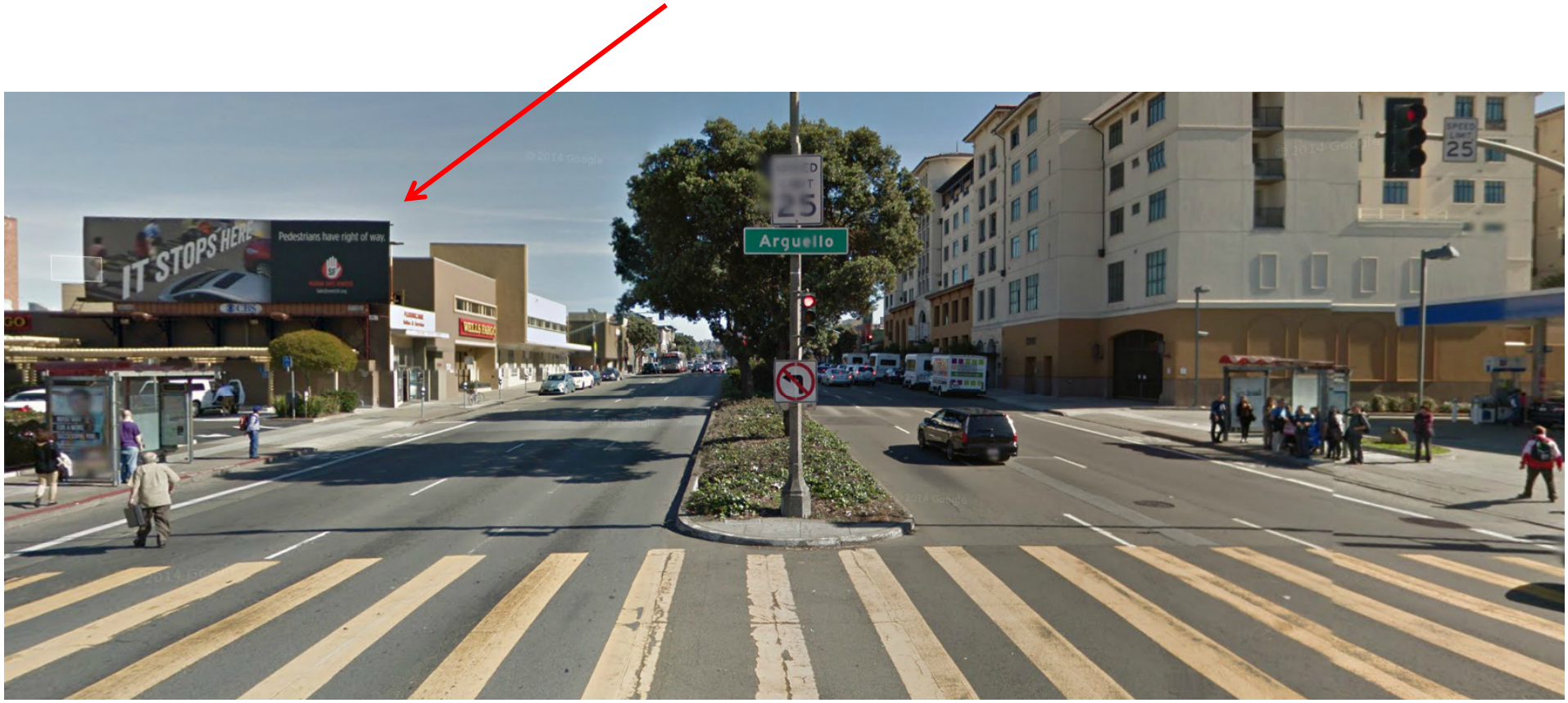
Intervention – Geary @ Arguello:

http://goo.gl/maps/uksMj

Control – Lombard @ Divisadero:

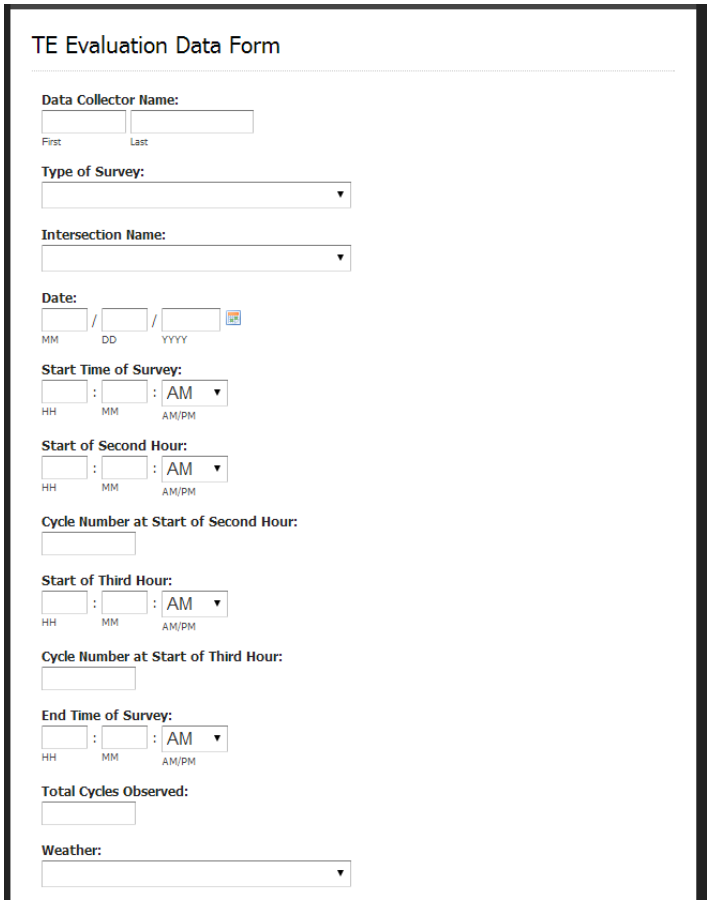
http://goo.gl/maps/PO43F

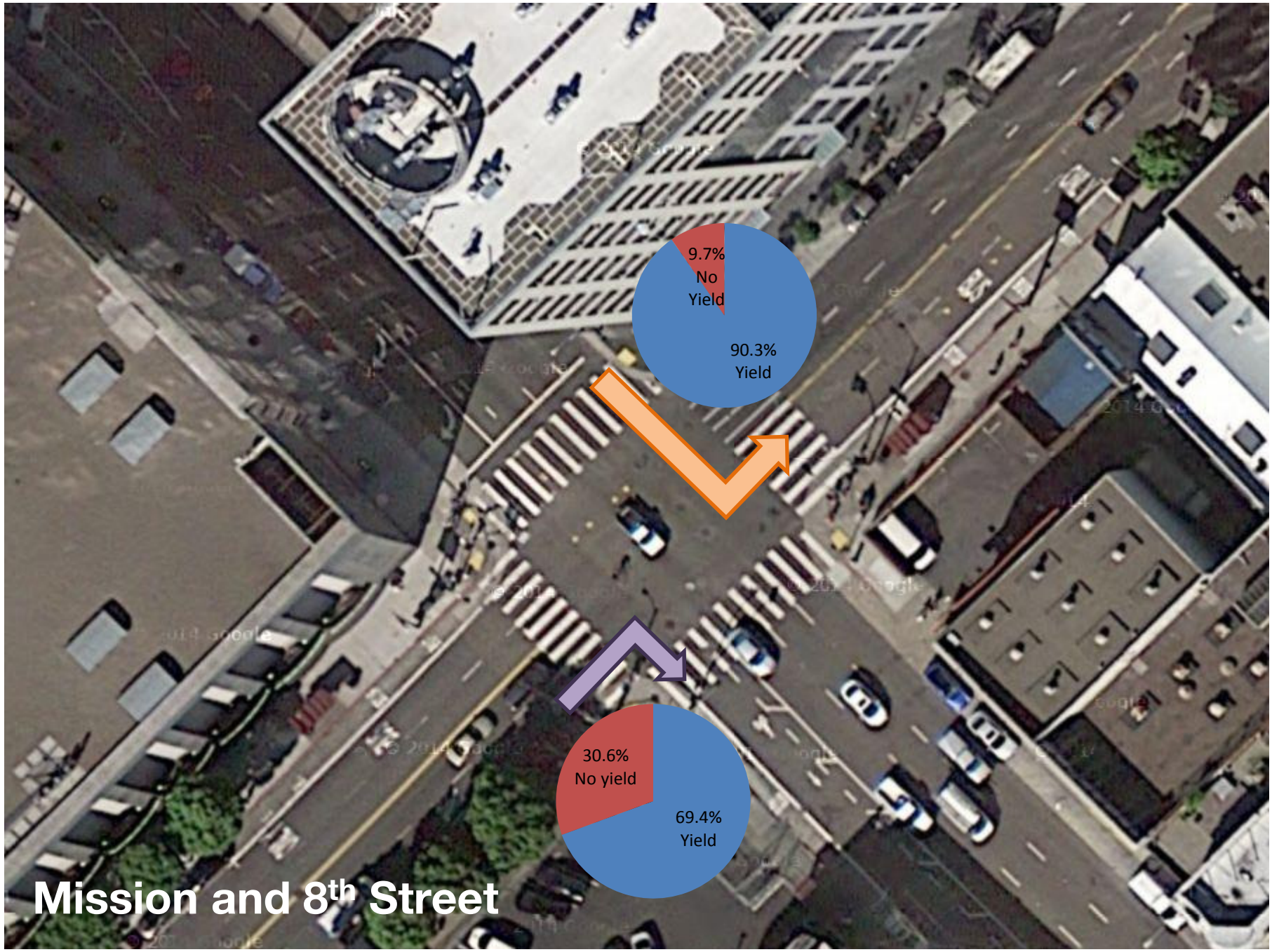
Targeted Interventions

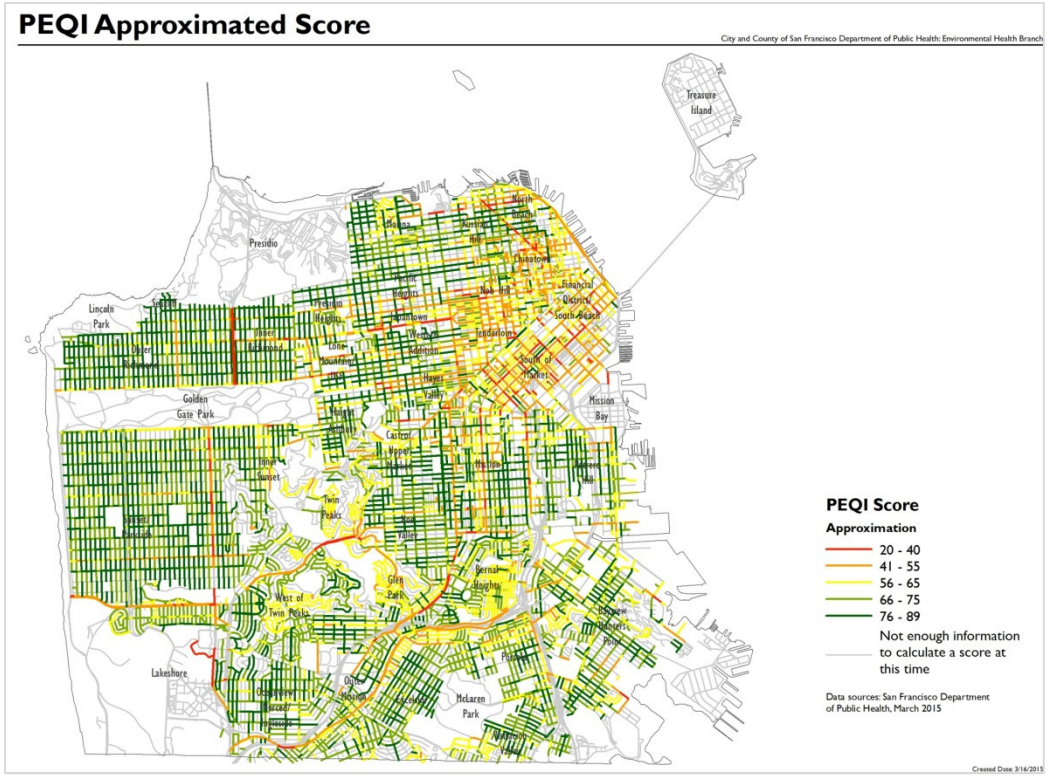


Data Entry Web Form

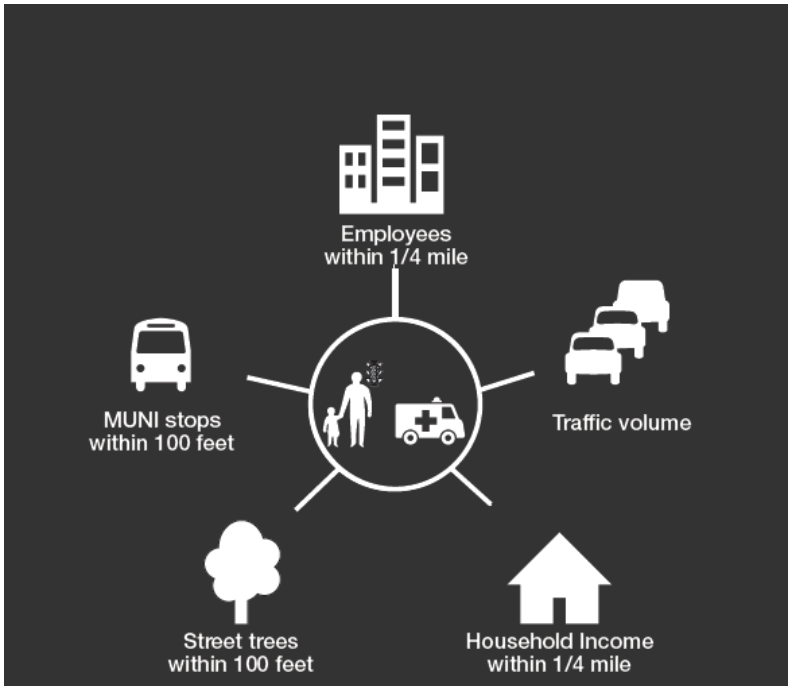
http://transbasesf.org/te_grant/data_entry.html




9.7%
No
Yield
90.3%
Yield
30.6%
No yield
69.4%
Yield
Mission and 8th Street



Primary Collision Factor Violation Category									
Driving or Bicycling Under the Influence of Alcohol or Drug	0	0.0%	33	1.0%	39	0.9%	52	0.8%	SWITRS (2005-2012)
Impeding Traffic	0	0.0%	4	0.1%	4	0.1%	4	0.1%	SWITRS (2005-2012)
Unsafe Speed	0	0.0%	167	5.0%	213	5.1%	333	5.4%	SWITRS (2005-2012)
Following Too Closely	0	0.0%	1	0.0%	2	0.0%	4	0.1%	SWITRS (2005-2012)
Wrong Side of Road	0	0.0%	4	0.1%	5	0.1%	5	0.1%	SWITRS (2005-2012)
Improper Passing	2	3.9%	46	1.4%	60	1.4%	97	1.6%	SWITRS (2005-2012)
Unsafe Lane Change	1	2.0%	15	0.4%	21	0.5%	26	0.4%	SWITRS (2005-2012)
Improper Turning	1	2.0%	50	1.5%	65	1.6%	85	1.4%	SWITRS (2005-2012)
Automobile Right of Way	0	0.0%	29	0.9%	38	0.9%	51	0.8%	SWITRS (2005-2012)
Pedestrian Right of Way	36	70.6%	1287	38.3%	1668	40.0%	2535	41.3%	SWITRS (2005-2012)
Pedestrian Violation	4	7.8%	1146	34.1%	1365	32.7%	1889	30.8%	SWITRS (2005-2012)
Traffic Signals and Signs	1	2.0%	139	4.1%	164	3.9%	236	3.8%	SWITRS (2005-2012)
Hazardous Parking	0	0.0%	4	0.1%	4	0.1%	12	0.2%	SWITRS (2005-2012)
Lights	0	0.0%	0	0.0%	0	0.0%	0	0.0%	SWITRS (2005-2012)
Brakes	0	0.0%	0	0.0%	0	0.0%	2	0.0%	SWITRS (2005-2012)
Other Equipment	0	0.0%	1	0.0%	1	0.0%	1	0.0%	SWITRS (2005-2012)
Other Hazardous Violation	0	0.0%	59	1.8%	71	1.7%	89	1.4%	SWITRS (2005-2012)
Other Than Driver (or Pedestrian)	0	0.0%	25	0.7%	32	0.8%	52	0.8%	SWITRS (2005-2012)
Unsafe Starting or Backing	4	7.8%	140	4.2%	167	4.0%	299	4.9%	SWITRS (2005-2012)
Other Improper Driving	0	0.0%	8	0.2%	9	0.2%	16	0.3%	SWITRS (2005-2012)
Pedestrian or "Other" Under the Influence of Alcohol or Drug	0	0.0%	0	0.0%	0	0.0%	0	0.0%	SWITRS (2005-2012)
Fell Asleep	0	0.0%	0	0.0%	0	0.0%	0	0.0%	SWITRS (2005-2012)
Unknown	1	2.0%	79	2.4%	96	2.3%	132	2.2%	SWITRS (2005-2012)
Not Stated	1	2.0%	121	3.6%	148	3.5%	218	3.6%	SWITRS (2005-2012)
Total	51	100.0%	3358	100.0%	4172	100.0%	6138	100.0%	SWITRS (2005-2012)



INJURY FORECASTING

SFDPH is usingTransBASE to efficiently manage and link data to inform the development of multi-variate models to predict pedestrian injuries at intersections and mid-block locations and support the City's prioritization of areas and countermeasures for safety improvements.

Other Maps

Vision Zero High Injury Network

http://arcg.is/1COvEDr

Vision Zero Fatality Map

http://bitly.com/1EtlPL3

Vision Zero Capital Improvement Projects Map

http://bitly.com/1lEP9V0

San Francisco's 'Secret Weapon' to Keep Pedestrians Safe

See more stories about...

Transportation

Innovation

City Government

Data

California

San Francisco

Search for stories about...

BY BILL LUCIA | MAY 05, 2015

A database management system is an indispensable tool for planners looking to eliminate traffic deaths in the city.

In the fight to prevent cars and other vehicles from hitting pedestrians on city streets, San Francisco has a "secret weapon."

At least in the view of one analyst at the city's transportation agency.

What is this indispensable tool? It's a database management system that aggregates over 200 variables related to transportation and health issues, which are pulled from across city departments and other agencies. It has been an important part of Vision Zero SF, a policy the city and county of San Francisco adopted last year that aims to eliminate traffic deaths on area streets by 2024.

"It is a secret weapon, we cannot recommend it enough," said Chava Kronenberg, a San Francisco Municipal Transportation Agency analyst, during a webinar session on Tuesday.

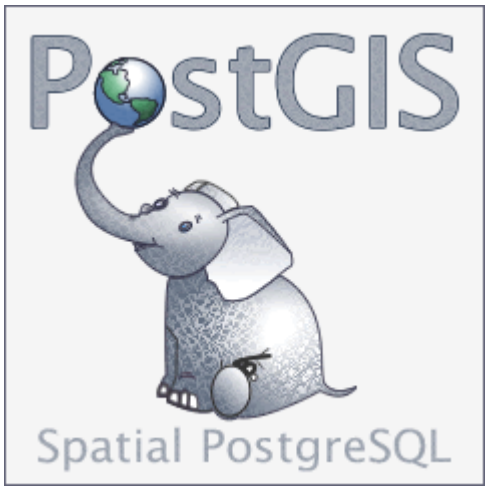
Sponsor Message

Dennis Diatel / Shutterstock.com

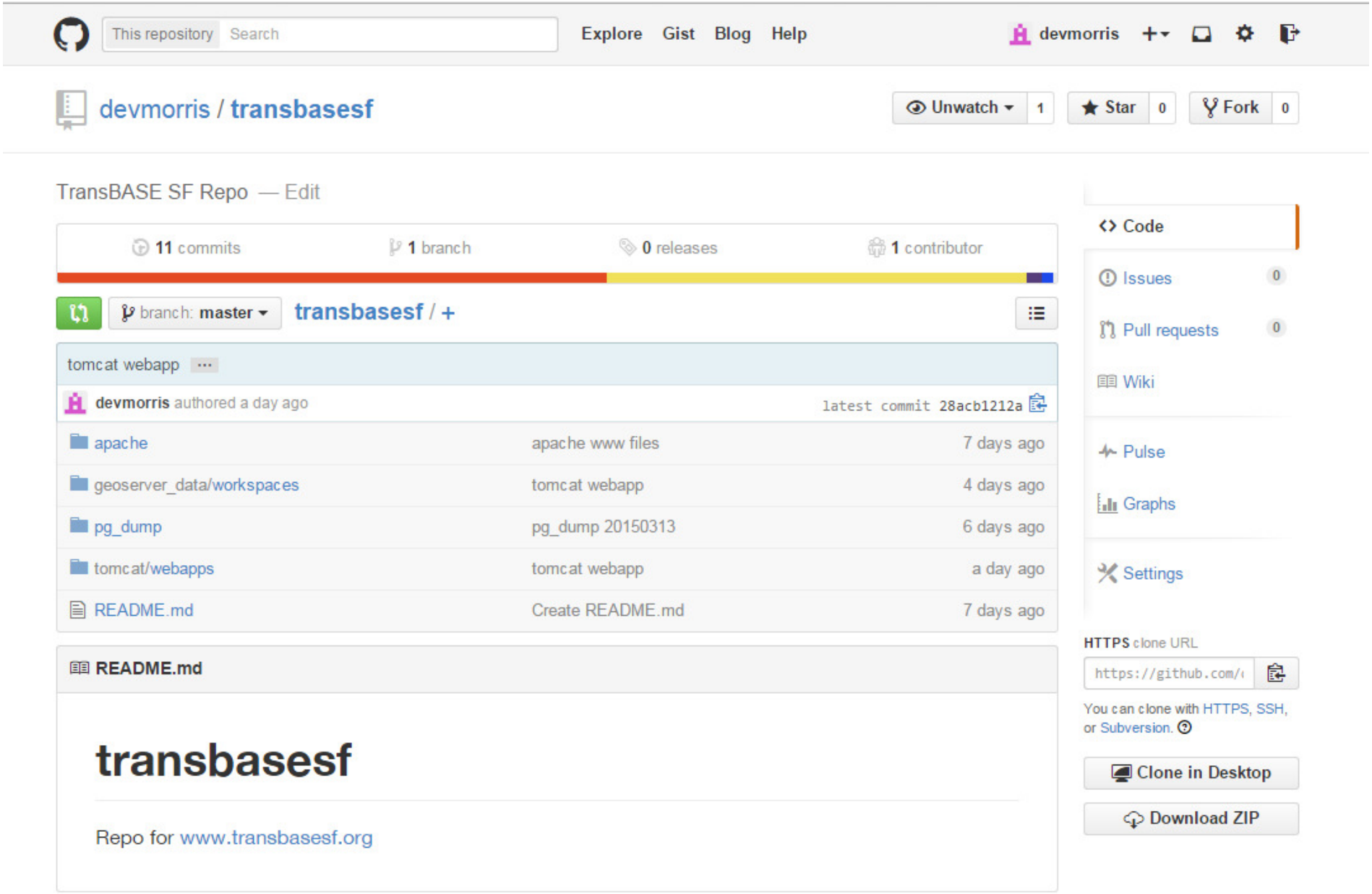
Summary

- Providing health based data in a systems perspective to inform transportation policy decisions.
- Achieving Visions Zero (0 deaths by 2024)
  - Health Impact Assessment
  - Evaluation
  - Monitoring
  - Existing conditions analysis.
- Help inform health based indicator development.

Open Source Suite



https://github.com/devmorris/transbasesf/



Why Open Data?

- Bridge the gap between government and citizens
- Improve transparency and accountability
- Improve government efficiency
- Inform decision making
- Inspire social innovation
- Generate economic activity

How is This Related to Health Impact Assessment?

TransBASE is a tool originally derived from an HIA with the goal to help facilitate additional transportation-related HIAs and advance HiAP.

Thank you!

www.transbasesf.org

The Centers for Disease Control and Prevention (CDC) provided funding for this project through the Health Impact Assessment to Foster Healthy Community Design grant.

Devan Morris
Devan.Morris@sfdph.org

SFDPH Environmental HEALTH
improving environments protecting health