Factors used in analysis:

| 2013		2016
% Area of ½ mile around school "100 Most Violent Block" **School distance to closest "100 Most Violent Block"**	**CRIME**	**# Violent calls for service (CFS) within ½ mile of school** **# OPD lockout incidents within 1,200 ft of school** **# School-based vandalism & graffiti incidents**
School distance to closest supermarket *(inverse weighted to income)*	**FOOD SECURITY**	**School distance to closest supermarket** *(inverse weighted to income)*
Median household income ½ mile around school **Unemployment rate ½ mile around school**	**SOCIO-ECONOMIC**	**Median household income within ½ mile of school** **Median home value within ½ mile of school** **Unemployment rate within ½ mile of school**
% Asthmatic students ½ mile around school *(proxy for air quality)*	**NATURAL ENVIRONMENT**	**% Asthmatic students ½ mile around school** *(proxy for air quality)* *# EPA Hazardous Sites & Emissions ½ mile around school*
% of commercial properties selling alcohol ½ mile around school **% Vacant residential units ½ mile around school**	**BLIGHT**	**% of commercial properties selling alcohol ½ mile around school** **% Vacant residential units ½ mile around school**

Methodology 2016: CRIME
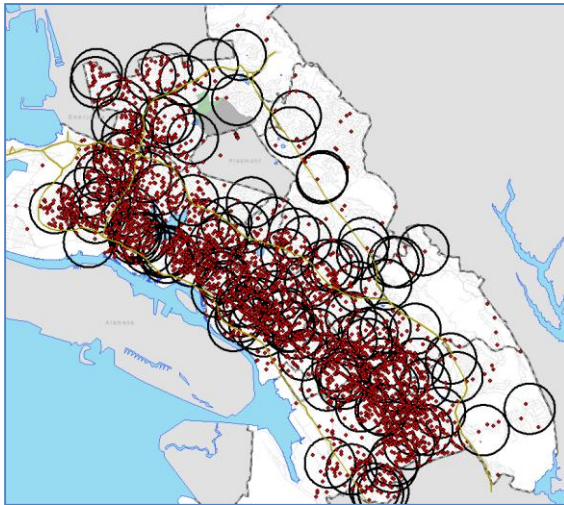
 # Violent calls for service (CFS) within ½ mile of each school site
Oakland Police Department ,
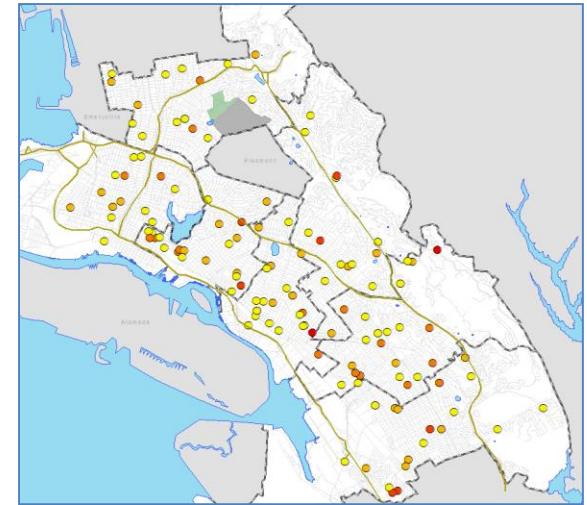*http://gismaps.oaklandnet.com/crimewatch/*

- Violent crimes (FBI Uniform Crime Reporting); and, non-violent classified crimes involving a weapon
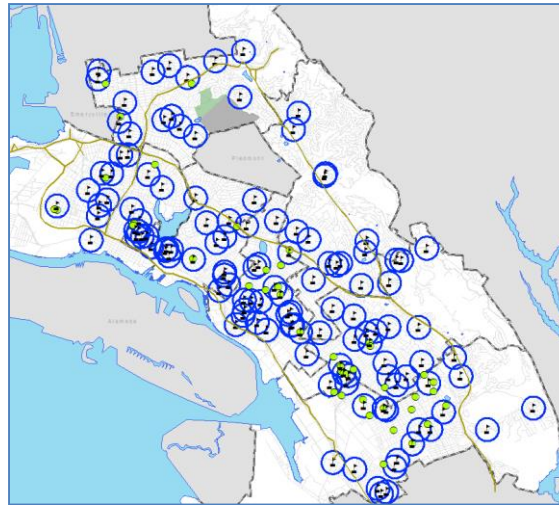
 # OPD lockout incidents within 1,200 feet of school site
OUSD Police Department incident information system
Note: Lockout incidents are police events in school neighborhoods that invoke a campus lockout order.

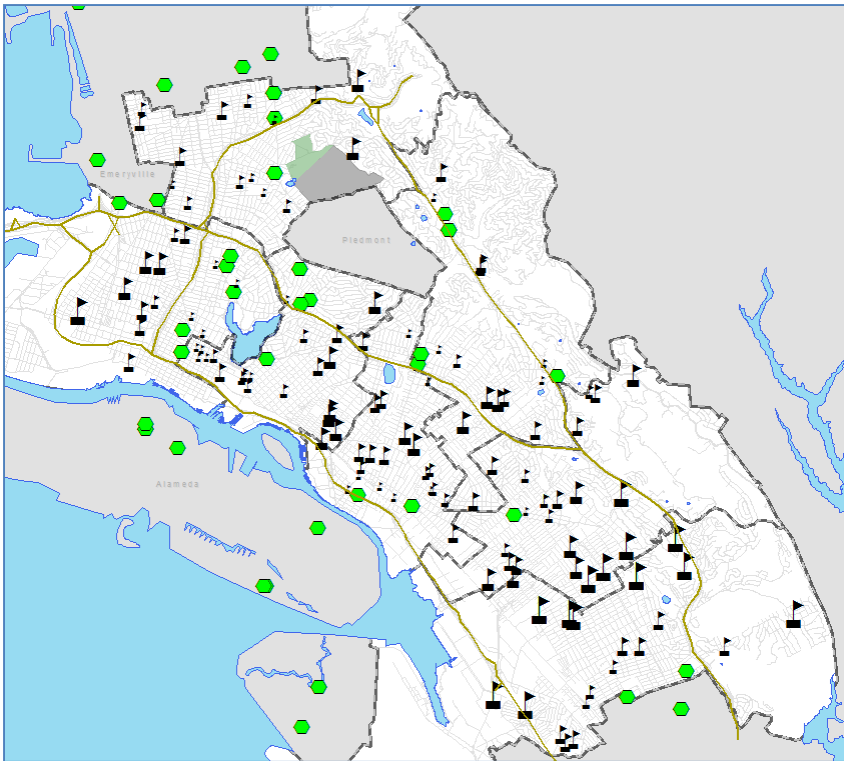**# School-based vandalism & graffiti incidents**
OUSD Buildings & Grounds ticket system
Note: Not considered for schools in non-OUSD facilities.

Methodology 2016: FOOD SECURITY

School distance to closest full service grocery store
California Alcohol Control Board *http://www.abc.ca.gov/*

Distance inverse-weighted by median household income to account for neighborhoods where personal transportation options overcome barriers to access.
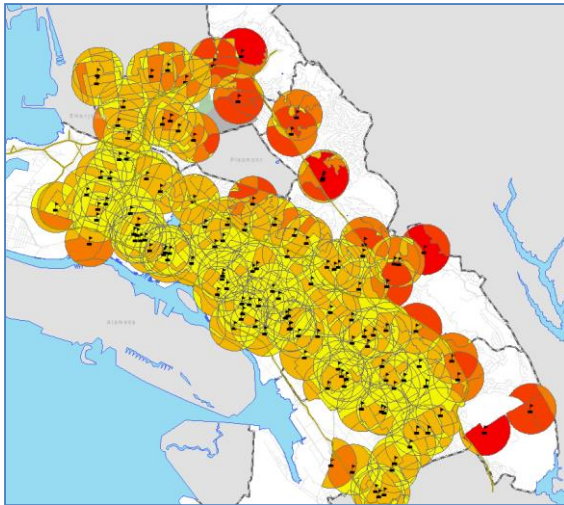
Example:

Futures
- Median Household Income $29,800 / .98 income weight rank
- Distance to closest full service grocery: 3,514 feet
- Weighted distance: 3,514 * .98 = **3,455 feet**

Redwood Heights
- Median Household Income $112,468 / .1 income weight rank
- Distance to closest full service grocery: 1,055 feet
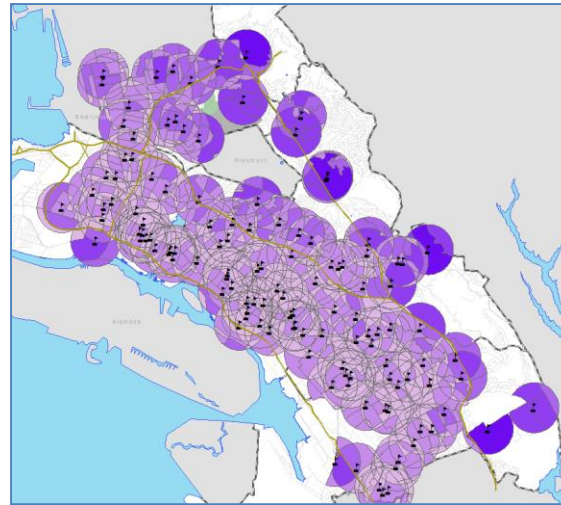- Weighted distance: 1,055 * .1 = **106 feet**

Methodology 2016: SOCIO-ECONOMIC*

Median Household Income
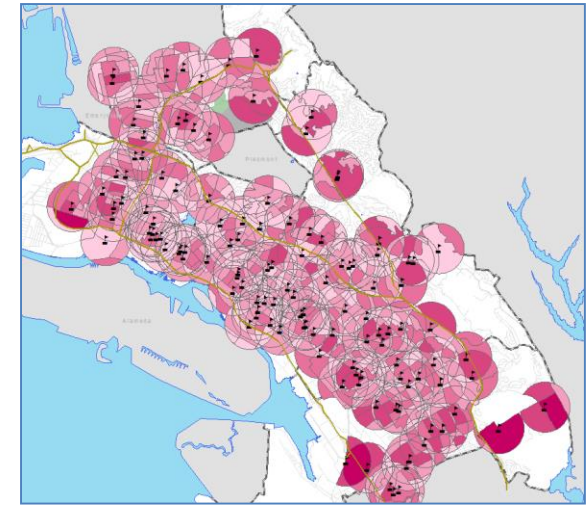ESRI Community Analyst/Demographic Updates 2016-21
- Bureau of Economic Analysis' local personal income series, http://www.bea.gov/
- Current Population Survey, http://www.census.gov/programs-surveys/cps.html
- Bureau of Labor Statistics' Consumer Price Index, http://www.bls.gov/cpi/
- American Community Survey, https://www.census.gov/programs-surveys/acs/

Median Home Value
House Price Index (HPI)
- Federal Housing Finance Agency (FHFA)
- http://www.fhfa.gov/DataTools/Downloads/Pages/House-Price-Index.aspx
- http://downloads.esri.com/esri_content_doc/dbl/us/J10268_Methodology_Statement_2016-2021_Esri_US_Demographic_Updates.pdf

Unemployment rate
ESRI Community Analyst/Demographic Updates 2016-21
- Local Area Unemployment Statistics (LAUS)
- Occupational Employment Statistics (OES)
- Current Employment Statistics (CES)/Bureau of Labor Statistics (BLS)
- American Community Survey, https://www.census.gov/programs-surveys/acs/

* All socio-economic factors measured ½ mile around each school and prorated to census block group proportion.

Methodology 2016: NATURAL ENVIRONMENT
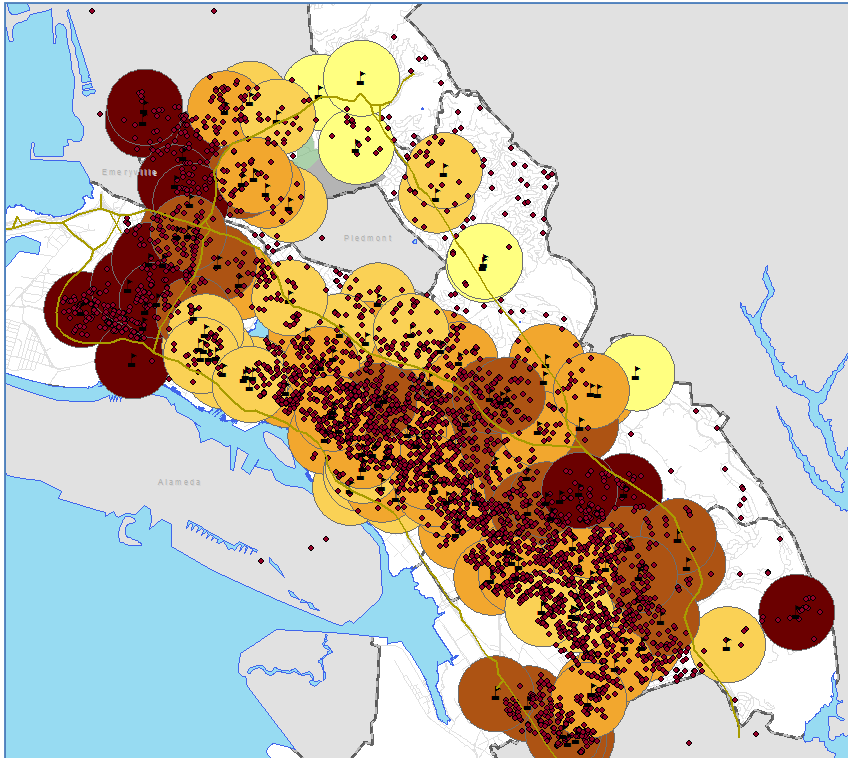
% Asthmatic students within ½ mile of school
- *OUSD Aeries – Medical History table (MHS) students coded A8 or A9*
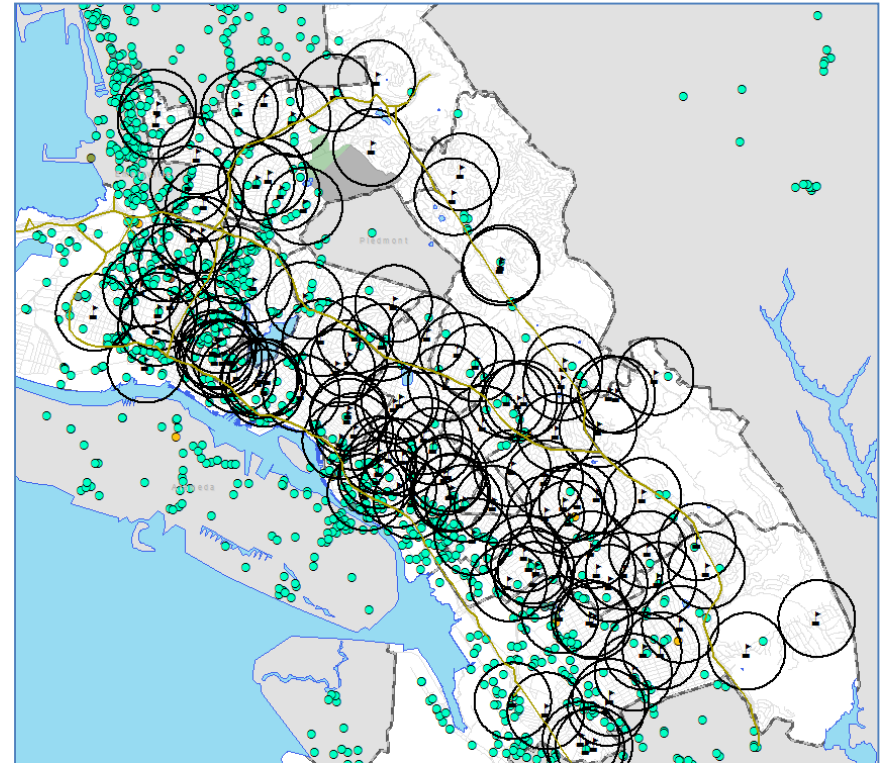
 # EPA Hazardous Sites & Emissions within ½ mile of school
- MyEnvironment, US Department of Environmental Protection
  https://www3.epa.gov/enviro/myenviro/

TOXSUBSTANCES - toxic substances	TOXRELAIR – toxic release to air
TOXRELWATER - toxic release into water	SUPERFUND – Superfund Site
TOXRELLAND - toxic release to land	HAZWASTE – Hazardous waste stored

Methodology 2016: BLIGHT
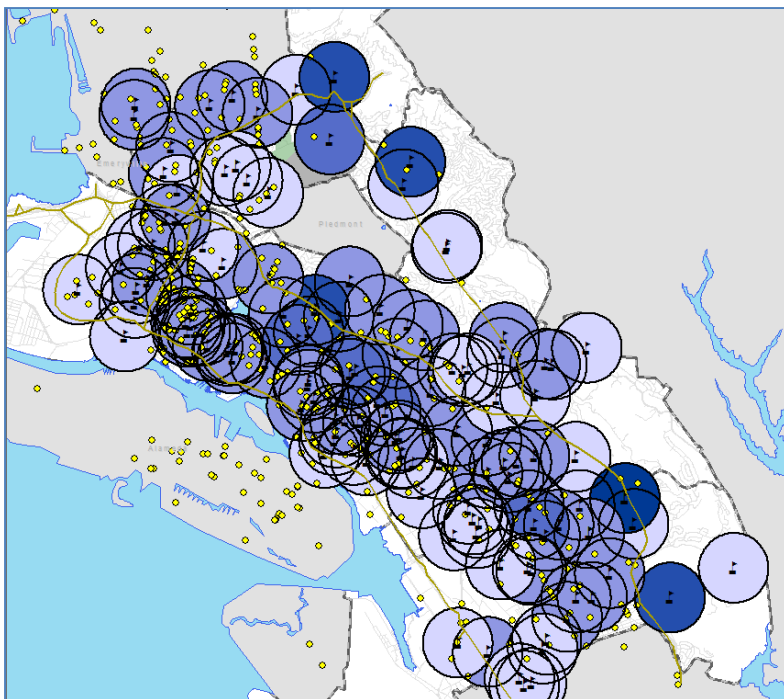
% of commercial properties selling alcohol within ½ mile of school

- California Alcohol Control Board *http://www.abc.ca.gov/*

  License types:*
  - 20 - OFF SALE BEER & WINE - (Package Store)
  - 21 - OFF SALE GENERAL - (Package Store)
  - 40 - ON SALE BEER - (Bar, Tavern)
  - 42 - ON SALE BEER & WINE – PUBLIC PREMISES - (Bar, Tavern)
  - 48 - ON SALE GENERAL – PUBLIC PREMISES - (Bar, Night Club)

  *Not considered in neighborhoods with less than 10 commercial parcels.
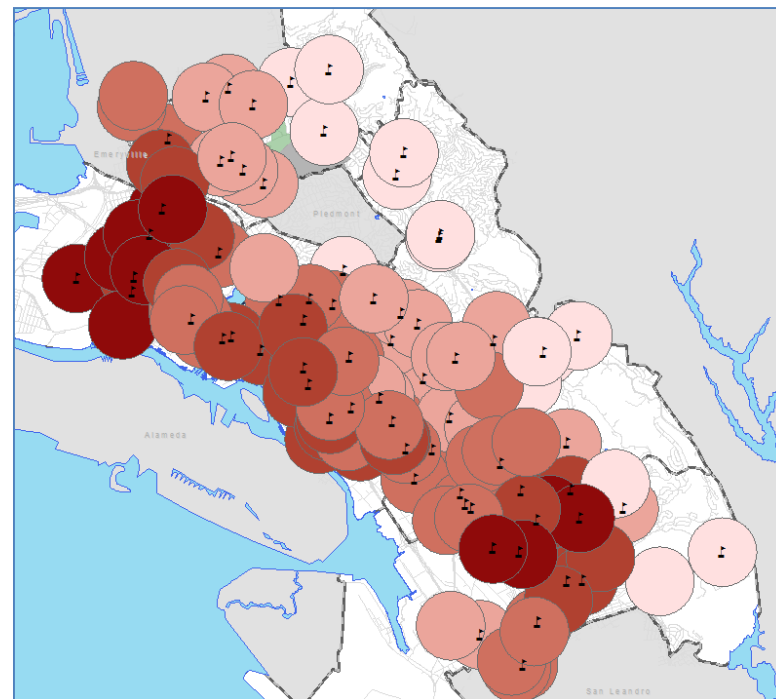
Residential Vacancy Rate within ½ mile of school

- US Census 2010 base data
- US Census Bureau Housing Vacancy Survey
- US Census Bureau American Community Survey
- Metrostudy
- US Postal Service

http://downloads.esri.com/esri_content_doc/dbl/us/J10268_Methodology_Statement_2016_2021_Esri_US_Demographic_Updates.pdf

Methodology 2016: Z-SCORE ANALYSIS

Z-score is a statistical value that allows the combination of various stress factors (crime, income, etc.) into a single value that shows how much _relative_ negative activity is present in a place.*

| School Code	School	Commercial Parcels (#)	Liquor Parcels (#)	Liquor Parcels (%)	Z-Liquor Parcels(%)	Median Household Income ($)	Z-Median Household Income ($) (INVERSE)	Median Home Value ($)	Z-Median Home Value ($) (INVERSE)	Unemployment (%)	Z-Unemployment	Vacancy (%)	Z_Vacancy	# Variables	Composite Z-Score 2016	Average Z-Score 2016	Average Z-Score RANK 2016	RANK POSITION % 2016 (2013 color band cut points)
183	PLACE	210	6	2.8571	-0.8719	35573.14	0.7236	312043.66	0.6928	11.3761	0.7789	17.5	2.2320	11	11.3395	1.0309	78	1.0000
165	ACORN Woodland	252	7	2.7778	-0.8928	32394.63	0.8070	231439.51	1.0547	12.2661	1.0392	16.4	1.9384	11	9.9195	0.9018	76	0.9744
181	EnCompass	252	7	2.7778	-0.8928	32394.63	0.8070	231439.51	1.0547	12.2661	1.0392	16.4	1.9384	11	9.9195	0.9018	76	0.9744
303	McClymonds	462	25	5.4113	-0.1987	32183.15	0.8125	344010.38	0.5493	11.3934	0.7839	18.1	2.3986	11	9.7543	0.8868	75	0.9615
226	Roots	124	7	5.6452	-0.1370	29800.82	0.8750	234308.89	1.0418	12.8193	1.2010	10.4	0.2535	11	9.6796	0.8800	71	0.9103
232	CCPA	124	7	5.6452	-0.1370	29800.82	0.8750	234308.89	1.0418	12.8193	1.2010	10.4	0.2535	11	9.6796	0.8800	71	0.9103
123	Futures	124	7	5.6452	-0.1370	29800.82	0.8750	234308.89	1.0418	12.8193	1.2010	10.4	0.2535	11	9.6796	0.8800	71	0.9103
149	Community United	124	7	5.6452	-0.1370	29800.82	0.8750	234308.89	1.0418	12.8193	1.2010	10.4	0.2535	11	9.6796	0.8800	71	0.9103
112	Greenleaf	105	9	8.5714	0.6343	30271.40	0.8626	237654.18	1.0268	13.6774	1.4519	10.7	0.3459	11	8.5994	0.7818	70	0.8974
301	Castlemont	76	4	5.2632	-0.2377	37807.85	0.6650	333751.81	0.5953	9.8203	0.3239	14.5	1.3870	11	8.0596	0.7327	69	0.8846
107	PRIDE	99	11	11.1111	1.3037	34978.87	0.7392	255451.92	0.9469	11.8295	0.9115	11.9	0.6779	11	7.5185	0.6835	68	0.8718
221	ECP	172	10	5.8140	-0.0925	33581.87	0.7758	286406.00	0.8079	13.8696	1.5081	11.9	0.6606	11	7.4965	0.6815	66	0.8462
224	Alliance	172	10	5.8140	-0.0925	33581.87	0.7758	286406.00	0.8079	13.8696	1.5081	11.9	0.6606	11	7.4965	0.6815	66	0.8462
129	Lafayette (2016-17)	233	15	6.4378	0.0719	28195.60	0.9171	352006.01	0.5134	13.1200	1.2889	13.3	1.0604	11	7.4443	0.6768	64	0.8205
204	WOMS	233	15	6.4378	0.0719	28195.60	0.9171	352006.01	0.5134	13.1200	1.2889	13.3	1.0604	11	7.4443	0.6768	64	0.8205
125	New Highland	253	12	4.7431	-0.3748	36491.06	0.6996	241832.23	1.0080	11.7250	0.8809	14.1	1.2984	11	7.2463	0.6588	62	0.7949
192	RISE	253	12	4.7431	-0.3748	36491.06	0.6996	241832.23	1.0080	11.7250	0.8809	14.1	1.2984	11	7.2463	0.6588	62	0.7949
302	Fremont	353	10	2.8329	-0.8783	37362.76	0.6767	292283.55	0.7815	10.0225	0.3830	10.5	0.2694	11	6.8660	0.6242	61	0.7821
182	MLK	231	11	4.7619	-0.3698	34219.43	0.7591	348409.37	0.5295	11.5800	0.8385	12.3	0.7769	11	5.6218	0.5111	60	0.7692
228	UFSA	114	12	10.5263	1.1495	38910.08	0.6361	318726.31	0.6628	10.8105	0.6135	7.9	-0.4483	11	5.3759	0.4887	58	0.7436
335	Life	114	12	10.5263	1.1495	38910.08	0.6361	318726.31	0.6628	10.8105	0.6135	7.9	-0.4483	11	5.3759	0.4887	58	0.7436
170	Hoover	362	16	4.4199	-0.4600	34611.10	0.7489	367092.53	0.4457	11.2405	0.7392	17.6	2.2747	11	4.9814	0.4529	57	0.7308
193	Reach	106	6	5.6604	-0.1330	35826.26	0.7170	297600.00	0.7577	13.8928	1.5149	12.1	0.7211	11	4.6646	0.4241	56	0.7179
118	Garfield	258	11	4.2636	-0.5012	40899.09	0.5840	367216.69	0.4451	10.4868	0.5188	12.7	0.9076	11	4.6438	0.4222	55	0.7051
138	Markham	108	8	7.4074	0.3275	38142.61	0.6563	271719.92	0.8738	10.5321	0.5320	11.5	0.5528	11	4.2896	0.3900	54	0.6923
203	Frick	138	7	5.0725	-0.2880	40893.77	0.5841	286447.15	0.8077	15.7606	2.0612	10.0	0.1350	11	3.7291	0.3390	53	0.6795
186	ICS	431	14	3.2483	-0.7688	40694.56	0.5893	325926.53	0.6305	10.6966	0.5801	11.4	0.5267	11	3.4441	0.3131	51	0.6538
190	TCN	431	14	3.2483	-0.7688	40694.56	0.5893	325926.53	0.6305	10.6966	0.5801	11.4	0.5267	11	3.4441	0.3131	51	0.6538

OUSD schools with highest weighted Z-score (_greatest preponderance of negative environmental factors_).

_*A Z-Score is a statistical measurement of a score's relationship to the _mean_ in a group of scores. A Z-score of 0 means the score is the same as the mean. A positive Z-score indicates how many standard deviations it is above the mean; conversely, a negative Z-score indicates how many standard deviations it is below the mean._

Methodology 2016: Z-SCORE ANALYSIS
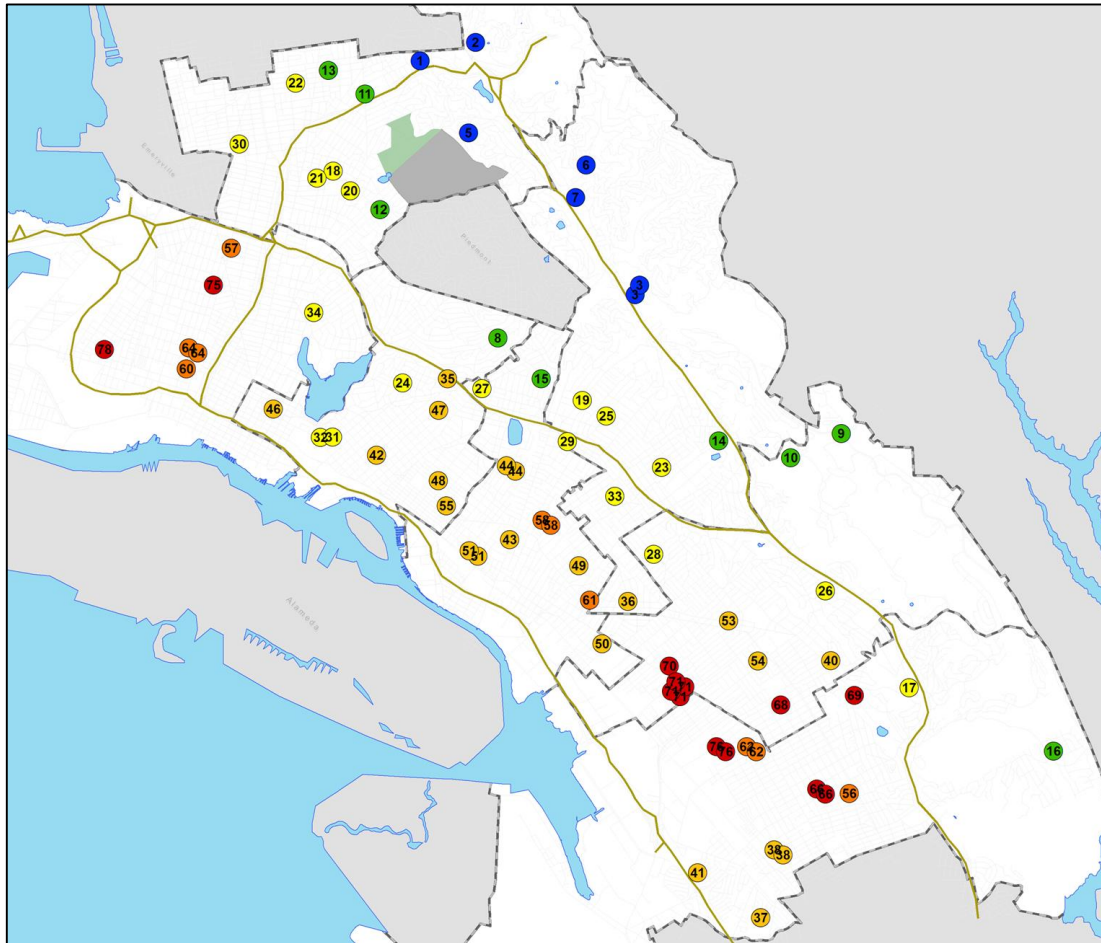
Environmental Stress Factors 2016:
RANK

- 1 - 7
- 8 - 16
- 17 - 34
- 35 - 55
- 56 - 64
- 65 - 78