ANEXO 1 – ANALISIS DATOS NO_2

- Estación Carvajal

Analisis Estadístico Total Datos	
No. Datos	45035
% datos	0.51
Suma	2169269
Media	48.17
Desv. Estándar	16.55
Max	208.25
Min	3.20
Rango	205.05
Mediana	46.42
Varianza	274.00
Moda	42.66
Coef. Asimetría	0.84

AÑO	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
N° Datos	0	0	3648	8032	7357	3398	4379	6759	655	8267	2540
% Datos	0%	0%	42%	92%	84%	39%	50%	77%	7%	94%	29%
Promedio Horario			37.10	46.86	46.04	47.04	40.80	55.52	52.40	52.55	54.26
Promedio Movil 24 horas			37.42	46.93	46.33	46.82	40.80	57.16	52.40	52.62	53.86
Max			115.40	157.13	208.25	141.53	142.84	122.36	198.85	161.45	154.12
Min			8.65	4.13	3.76	8.08	11.46	9.02	17.10	5.26	3.20
Desv. Estandar			12.00	15.85	17.20	18.46	14.44	13.30	17.88	14.98	19.11
Moda			37.78	38.91	34.96	38.15	29.70	57.51	48.87	44.36	47.18
Varianza			144.01	251.23	295.81	340.83	208.45	176.88	319.82	224.26	365.14

- Estación Puente Aranda

Análisis Estadístico Total Datos	
No. Datos	65750
% datos	0.75
Suma	2571258
Media	39.11
Desv. Estandar	21.06
Max	298.28
Min	0.19
Rango	298.09
Mediana	36.46
Varianza	443.57
Moda	35.90
Coef. Asimetria	1.21

AÑO	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
N° Datos	1245	8197	6022	7926	7691	1524	561	7924	7480	8463	8716
% Datos	14%	94%	69%	90%	88%	17%	6%	90%	85%	97%	99%
Promedio Horario	45.49	49.91	32.36	33.03	48.61	59.65	39.98	39.85	38.89	32.15	32.45
Promedio Movil 24 horas	45.27	49.85	32.34	33.19	48.46	58.95	40.28	39.75	39.18	32.03	32.47
Max	254.48	182.88	120.29	161.82	298.28	174.61	130.25	155.81	163.70	161.64	158.82
Min	0.94	5.83	2.82	0.94	0.19	14.10	2.82	0.75	0.75	0.38	1.69
Desv. Estandar	34.56	18.95	14.01	20.04	24.33	22.49	20.67	18.21	18.06	18.38	19.07
Moda	36.46	38.72	29.88	18.80	41.72	50.56	35.90	34.96	39.85	22.18	25.00
Varianza	1194.68	359.27	196.19	401.59	592.09	505.58	427.34	331.55	326.04	337.84	363.75

- Estación Kennedy

Análisis Estadístico Total Datos	
No. Datos	45751
% datos	0.52
Suma	1578373
Media	34.50
Desv. Estandar	16.81
Max	196.03
Min	0.19
Rango	195.84
Mediana	31.76
Varianza	282.53
Moda	28.76
Coef. Asimetria	1.14

AÑO	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
N° Datos	0	792	1373	0	5945	7127	7848	8073	8296	5252	1045
% Datos	0%	9%	16%	0%	68%	81%	89%	92%	95%	60%	12%
Promedio Horario			26.49		45.86	33.98	37.45	33.38	34.31	25.42	20.33
Promedio Movil 24 horas			26.47		45.84	33.85	37.48	33.30	34.37	25.44	19.52
Max			118.22		196.03	119.91	111.27	140.21	101.68	101.68	83.45
Min			4.89		1.32	0.38	5.64	6.20	7.33	0.19	0.19
Desv. Estandar			13.91		22.68	17.80	15.20	13.57	13.47	10.67	12.58
Moda			11.46		49.62	20.11	31.58	32.33	29.13	21.61	15.41
Varianza			193.35		514.32	316.91	230.92	184.03	181.45	113.83	158.25

- Estación Centro de Alto Rendimiento

Analisis Estadistico Total Datos	
No. Datos	75525
% datos	0.86
Suma	2394504
Media	31.70
Desv. Estandar	21.98
Max	239.82
Min	0.00
Rango	239.82
Mediana	27.25
Varianza	483.25
Moda	15.41
Coef. Asimetria	1.36

AÑO	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
N° Datos	6653	6967	6813	6834	8126	6090	7421	7788	2477	7658	8697
% Datos	76%	80%	78%	78%	93%	70%	84%	89%	28%	87%	99%
Promedio Horario	28.15	24.46	38.70	41.11	44.40	34.48	24.61	16.08	33.85	32.41	32.35
Promedio Movil 24 horas	28.04	24.41	38.66	41.25	44.70	34.20	24.52	15.68	33.05	32.16	32.27
Max	111.27	142.09	218.02	239.82	224.98	132.32	118.78	76.68	123.48	157.31	150.74
Min	0.00	0.00	0.00	0.00	2.82	0.94	0.75	0.19	0.75	0.00	0.00
Desv. Estandar	16.08	18.11	27.85	27.54	23.18	20.78	14.63	8.86	19.15	21.22	19.88
Moda	28.57	11.28	3.57	22.37	39.47	21.99	25.00	9.40	21.61	13.72	9.96
Varianza	258.69	327.96	775.87	758.47	537.54	431.63	214.08	78.54	366.79	450.26	395.03

- Estación Ferias

Analisis Estadistico Total Datos	
No. Datos	63403
% datos	0.72
Suma	1625564
Media	25.64
Desv. Estandar	20.91
Max	198.66
Min	0.19
Rango	198.48
Mediana	20.49
Varianza	437.42
Moda	4.32
Coef. Asimetria	1.36

AÑO	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
N° Datos	3191	0	5615	7407	7079	7846	7829	6020	7136	8203	3077
% Datos	36%	0%	64%	85%	81%	90%	89%	69%	81%	94%	35%
Promedio Horario	17.86		23.46	27.33	25.67	24.38	27.18	25.21	23.56	31.37	23.21
Promedio Movil 24 horas	18.04		23.46	27.29	26.12	24.33	27.24	25.18	23.54	31.23	22.26
Max	94.54		166.90	155.43	198.66	173.10	154.12	132.32	161.07	123.67	140.77
Min	3.38		0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.38	0.19
Desv. Estandar	8.32		20.77	20.97	25.55	23.01	21.55	19.72	18.51	17.44	22.47
Moda	15.98		5.45	9.02	4.32	4.51	3.76	0.75	5.45	23.12	4.13
Varianza	69.25		431.31	439.69	652.79	529.66	464.31	388.81	342.67	304.22	504.80

- Estación Guaymaral

Analisis Estadistico Total Datos	
No. Datos	53203
% datos	0.61
Suma	1207751
Media	22.70
Desv. Estandar	13.20
Max	152.80
Min	0.19
Rango	152.62
Mediana	20.11
Varianza	174.11
Moda	13.72
Coef. Asimetria	1.30

AÑO	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
N° Datos	0	0	4690	6323	5945	5759	4418	3237	8482	8126	6222
% Datos	0%	0%	53%	72%	68%	66%	50%	37%	97%	93%	71%
Promedio Horario			20.52	23.00	22.23	24.23	17.76	26.09	23.23	24.28	22.05
Promedio Movil 24 horas			20.51	22.85	22.48	24.32	17.90	25.64	23.26	24.23	21.87
Max			104.50	91.72	102.81	152.80	103.94	102.43	106.00	97.73	101.31
Min			0.56	0.56	0.38	0.19	0.94	3.38	1.50	2.44	0.19
Desv. Estandar			10.45	13.81	12.57	16.80	9.68	14.93	12.46	12.58	12.89
Moda			21.05	11.28	13.34	15.79	16.73	9.96	11.09	11.84	12.59
Varianza			109.24	190.71	158.05	282.30	93.72	222.91	155.34	158.35	166.11

ANEXO 1 – ANALISIS DATOS O_3

- Estación Carvajal

AÑO	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
N° Datos	0	0	3267	7946	6559	3264	4095	6134	543	7798	2218
% Datos	0%	0%	37%	91%	75%	37%	47%	70%	6%	89%	25%
Media			38.40	48.95	46.90	49.20	41.95	57.77	54.09	55.01	55.34
Media 8H			38.24	48.95	47.17	49.19	42.18	59.22	54.41	55.09	55.19
Max			120.50	160.54	217.45	147.78	149.16	127.76	207.64	168.59	157.99
Min			9.03	4.32	3.93	8.44	11.97	9.42	17.86	5.50	3.34
Desv. Estandar			12.26	16.51	17.45	19.27	14.69	14.11	19.76	15.72	19.55
Moda			39.45	40.63	36.50	39.84	31.01	58.68	45.34	50.44	49.26
Varianza			150.38	272.58	304.63	371.51	215.84	199.18	390.57	247.17	382.02

- Estación Kennedy

AÑO	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
N° Datos	0	0	197	0	0	0	0	0	225	7105	6468
% Datos	0%	0%	2%	0%	0%	0%	0%	0%	3%	81%	74%
Media										22.08	15.03
Max			43.77						51.81	155.24	154.26
Min			0.20						4.51	0.20	0.20
Desv. Estandar			9.24						12.27	19.08	20.53
Moda			1.96						7.65	5.30	2.36
Varianza			85.43						150.67	364.17	421.42

- Estación San Cristóbal

AÑO	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
N° Datos	0	0	0	0	0	4782	7436	4454	7442	7283	6708
% Datos	0%	0%	0%	0%	0%	55%	85%	51%	85%	83%	76%
Media						17.54	23.11	27.33	20.31	30.63	18.64
Media Movil 8H						17.19	22.79	26.41	20.06	30.72	18.44
Max						101.47	122.86	118.34	127.76	136.99	303.41
Min						0.00	0.00	0.39	0.00	0.00	0.00
Desv. Estandar						13.93	15.38	15.54	14.22	17.13	18.22
Moda						0.98	22.57	30.81	3.73	30.03	0.00
Varianza						194.01	236.52	241.59	202.33	293.47	331.92

- Estación Puente Aranda

AÑO	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
N° Datos	0	0	4493	7144	3221	5140	7176	5372	7663	7158	7307
% Datos	0%	0%	51%	82%	37%	59%	82%	61%	87%	82%	83%
Media			16.23	23.87	21.52	18.26	17.44	17.17	14.88	17.07	14.95
Media Movil 8H			16.13	23.85	20.86	17.83	17.37	16.65	14.73	17.09	15.12
Max			101.86	133.85	138.95	131.49	116.18	98.13	126.19	126.39	127.57
Min			1.37	0.79	0.20	0.59	0.59	0.39	0.00	0.00	0.00
Desv. Estandar			14.85	17.64	21.42	17.96	14.74	13.60	14.18	15.27	16.84
Moda			4.71	3.93	3.53	2.94	4.32	3.14	2.94	2.16	0.00
Varianza			220.58	311.13	458.70	322.55	217.31	184.89	200.94	233.18	283.65

- Estación Centro de Alto Rendimiento

AÑO	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
N° Datos	6612	7196	8504	7644	7367	5763	8238	6498	7829	7782	7787
% Datos	75%	82%	97%	87%	84%	66%	94%	74%	89%	89%	89%
Media	24.53	30.57	24.53	26.12	26.53	25.43	26.53	26.56	22.54	25.80	25.03
Media Movil 8H	24.62	30.13	24.54	26.05	26.41	24.93	26.50	25.41	22.40	25.85	25.09
Max	164.27	289.48	184.88	156.22	185.07	176.83	160.54	151.90	156.61	162.11	178.20
Min	0.00	0.00	0.00	0.79	0.20	0.00	0.20	0.00	0.00	0.00	0.00
Desv. Estandar	21.00	29.74	25.44	23.83	27.16	25.15	24.19	22.05	21.28	21.31	25.21
Moda	7.46	5.89	1.57	2.16	5.69	3.34	2.75	2.55	0.79	1.18	2.36
Varianza	437.77	884.50	647.04	567.63	737.91	632.40	585.33	486.33	453.03	454.07	635.35

- Estación Ferias

AÑO	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
N° Datos	2577	0	5432	6852	6717	5050	7332	4834	6404	7246	3225
% Datos	29%	0%	62%	78%	77%	58%	83%	55%	73%	83%	37%
Media	19.03		24.84	27.68	23.43	27.42	28.35	28.55	25.14	33.01	22.98
Media Movil 8H	19.14		24.71	27.30	23.61	27.01	27.66	26.46	24.77	24.77	22.95
Max	98.72		174.28	162.31	207.44	180.75	160.93	138.17	168.19	129.14	147.00
Min	3.53		0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.39	0.00
Desv. Estandar	9.30		21.81	22.52	27.14	26.04	22.21	20.67	19.50	18.08	23.48
Moda	18.84		5.69	0.00	0.00	4.51	3.73	0.79	5.69	24.14	0.00
Varianza	86.44		475.55	506.97	736.38	678.10	493.40	427.14	380.07	326.72	551.19

- Estación Usaquén

AÑO	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
N° Datos	0	0	1602	6695	6463	4552	7526	5694	7035	7474	7410
% Datos	0%	0%	18%	76%	74%	52%	86%	65%	80%	85%	84%
Media			29.03	34.40	43.23	34.12	26.76	31.58	31.98	46.32	37.04
Media Movil 8H			29.17	34.16	42.38	32.66	26.54	30.54	31.81	46.39	37.20
Max			121.68	137.77	212.15	205.87	144.05	105.39	178.99	176.04	228.64
Min			0.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.79
Desv. Estandar			20.41	21.10	34.53	25.60	17.10	16.97	21.67	24.06	25.10
Moda			7.65	7.46	1.77	0.59	1.37	36.11	0.79	43.18	0.98
Varianza			416.48	445.12	1192.35	655.42	292.35	288.10	469.60	578.80	629.96

- Estación Suba

AÑO	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
N° Datos	929	0	4654	8085	4355	7883	8406	7088	8480	5950	5766
% Datos	11%	0%	53%	92%	50%	90%	96%	81%	97%	68%	66%
Media	20.29		28.60	34.50	32.89	27.38	28.23	26.10	22.31	21.28	28.67
Media Movil 8H	20.58		28.64	34.47	33.05	27.20	28.24	26.09	22.30	21.46	28.80
Max	110.69		141.50	181.34	200.18	157.01	145.43	138.95	119.72	132.08	216.87
Min	2.94		4.51	2.55	0.20	0.20	0.79	0.20	0.20	0.20	0.20
Desv. Estandar	17.02		20.66	22.97	28.25	22.88	22.41	20.69	18.71	17.23	27.33
Moda	7.07		9.03	11.19	2.55	1.77	1.77	2.36	0.79	2.36	1.96
Varianza	289.56		426.97	527.83	797.83	523.65	502.19	428.14	350.24	297.00	746.89

- Estación Guaymaral

AÑO	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
N° Datos	0	0	4692	8094	5478	7678	8031	8200	8378	8348	8362
% Datos	0%	0%	53%	92%	63%	88%	91%	94%	96%	95%	95%
Media			20.94	27.44	24.19	21.64	20.67	23.51	23.36	22.19	24.86
Media Movil 8H			20.98	27.47	24.36	21.59	20.62	23.56	23.31	22.17	24.87
Max			154.65	140.52	164.66	165.05	157.01	151.51	158.97	126.98	194.30
Min			0.20	0.20	0.20	0.20	0.20	0.79	0.20	0.20	0.20
Desv. Estandar			20.32	20.22	24.23	20.98	19.31	20.53	20.82	18.82	23.58
Moda			3.14	10.21	0.98	3.34	1.96	1.57	1.37	1.96	2.16
Varianza			412.89	409.04	587.07	440.30	372.69	421.62	433.29	354.22	555.99