

**Data Set of
Urban**

Months	Labor	Business Structures	Construction Rate	Demolition
1	17500.0000	1000.0000	38.8900	20.0000
2	19254.8100	1018.8900	46.2000	20.3800
3	20313.5200	1044.7100	50.2400	20.8900
4	21070.8900	1074.0600	52.8700	21.4800
5	21737.8300	1105.4500	55.0500	22.1100
6	22393.2500	1138.3900	57.1700	22.7700
7	23063.5800	1172.7900	59.3400	23.4600
8	23758.0200	1208.6700	61.6100	24.1700
9	24480.5300	1246.1100	64.0000	24.9200
10	25233.5200	1285.1900	66.5300	25.7000
11	26019.0700	1326.0200	69.2000	26.5200
12	26839.2500	1368.6900	72.0200	27.3700
13	27696.2300	1413.3400	75.0200	28.2700
14	28592.3700	1460.0900	78.2000	29.2000
15	29530.2100	1509.0900	81.4800	30.1800
16	30512.5000	1560.3800	84.5000	31.2100
17	31541.0500	1613.6700	87.7000	32.2700
18	32612.8500	1669.1100	91.0800	33.3800
19	33728.4500	1726.8000	94.6100	34.5400
20	34889.6100	1786.8800	98.3300	35.7400
21	36098.5200	1849.4700	102.2200	36.9900
22	37357.6500	1914.7000	106.3200	38.2900
23	38669.6400	1982.7300	110.6200	39.6500
24	40037.3300	2053.6900	114.7300	41.0700
25	41463.7700	2127.3500	118.8900	42.5500
26	42947.0000	2203.6900	123.2400	44.0700
27	44486.3200	2282.8600	127.7700	45.6600
28	46083.0700	2364.9700	132.4700	47.3000
29	47739.2400	2450.1400	137.3600	49.0000
30	49457.0900	2538.5000	142.1800	50.7700
31	51239.0600	2629.9100	146.8500	52.6000
32	53084.6200	2724.1600	151.6600	54.4800
33	54990.7800	2821.3400	156.6100	56.4300
34	56957.5300	2921.5200	161.6800	58.4300
35	58985.7500	3024.7700	166.2500	60.5000
36	61076.5500	3130.5300	168.8000	62.6100
37	63223.4300	3236.7200	171.3700	64.7300

38	65398.2600	3343.3500	173.7800	66.8700
39	67589.6100	3450.2600	176.0000	69.0100
40	69790.9000	3557.2600	174.7000	71.1500
41	71996.9700	3660.8100	170.4400	73.2200
42	74161.6200	3758.0400	166.2200	75.1600
43	76229.8800	3849.1000	161.8600	76.9800
44	78181.7800	3933.9800	157.3700	78.6800
45	80009.1900	4012.6600	152.0000	80.2500
46	81709.0100	4084.4100	142.8500	81.6900
47	83278.9200	4145.5700	135.2400	82.9100
48	84795.5000	4197.9000	128.9100	83.9600
49	86226.8800	4242.8500	123.5100	84.8600
50	87554.7800	4281.5000	0.0000	85.6300
51	88770.0400	4195.8700	0.0000	83.9200
52	89249.0700	4111.9500	0.0000	82.2400
53	89143.5100	4029.7100	0.0000	80.5900
54	88592.2500	3949.1200	0.0000	78.9800
55	87712.8500	3870.1400	0.0000	77.4000
56	86599.4600	3792.7300	0.0000	75.8500
57	85324.6100	3716.8800	0.0000	74.3400
58	83942.6000	3642.5400	0.0000	72.8500
59	82493.2400	3569.6900	0.0000	71.3900
60	81005.2700	3498.3000	0.0000	69.9700
61	79499.1500	3428.3300	0.0000	68.5700
62	77989.3100	3359.7700	0.0000	67.2000
63	76485.8300	3292.5700	0.0000	65.8500
64	74995.6300	3226.7200	0.0000	64.5300
65	73523.4500	3162.1800	0.0000	63.2400
66	72072.4300	3098.9400	0.0000	61.9800
67	70644.6100	3036.9600	0.0000	60.7400
68	69241.2800	2976.2200	5.5000	59.5200
69	67863.1600	2922.2000	17.6200	58.4400
70	66546.2700	2881.3700	26.1900	57.6300
71	65357.1400	2849.9400	32.3100	57.0000
72	64316.7100	2825.2500	36.7500	56.5100
73	63422.4100	2805.5000	40.0400	56.1100
74	62661.1300	2789.4300	42.5400	55.7900
75	62016.2800	2776.1800	44.4800	55.5200
76	61471.1600	2765.1400	46.0300	55.3000
77	61010.4600	2755.8600	47.2700	55.1200
78	60620.8200	2748.0100	48.2900	54.9600
79	60290.8200	2741.3400	49.1300	54.8300

 Final

60010.8500 2735.6400

**Analysis
Part**

Labor Availability Multiplier	Land Availability multiplier	Construction Fraction	Job Requirement
0.6500	2.9800	0.0200	20000.0000
0.7600	2.9900	0.0200	20377.7800
0.8000	3.0100	0.0200	20894.2200
0.8100	3.0300	0.0200	21481.2100
0.8100	3.0600	0.0200	22108.9300
0.8200	3.0800	0.0200	22767.7900
0.8100	3.1000	0.0200	23455.7900
0.8100	3.1300	0.0200	24173.4600
0.8100	3.1600	0.0200	24922.2100
0.8100	3.1900	0.0200	25703.8300
0.8100	3.2100	0.0200	26520.3200
0.8100	3.2500	0.0200	27373.8700
0.8100	3.2800	0.0200	28266.8600
0.8100	3.3100	0.0200	29201.9000
0.8100	3.3400	0.0200	30181.7900
0.8100	3.3600	0.0200	31207.6700
0.8100	3.3700	0.0200	32273.5000
0.8100	3.3900	0.0200	33382.1200
0.8000	3.4000	0.0200	34536.0000
0.8000	3.4200	0.0200	35737.5500
0.8000	3.4400	0.0200	36989.3300
0.8000	3.4600	0.0200	38294.0200
0.8000	3.4800	0.0200	39654.5100
0.8000	3.4800	0.0200	41073.8800
0.8000	3.4900	0.0200	42546.9400
0.8000	3.4900	0.0200	44073.8600
0.8000	3.4900	0.0200	45657.2300
0.8000	3.4900	0.0200	47299.4300
0.8000	3.5000	0.0200	49002.8400
0.8000	3.5000	0.0200	50769.9000
0.8000	3.4800	0.0200	52598.1700
0.8000	3.4700	0.0200	54483.1300
0.8000	3.4600	0.0200	56426.7400
0.8000	3.4500	0.0200	58430.4300
0.8000	3.4200	0.0200	60495.4600
0.8000	3.3600	0.0200	62610.5100
0.8000	3.2900	0.0200	64734.3500

0.8100	3.2200	0.0200	66866.9700
0.8100	3.1500	0.0200	69005.2700
0.8100	3.0300	0.0200	71145.1900
0.8200	2.8600	0.0200	73216.2500
0.8200	2.7000	0.0200	75160.7500
0.8300	2.5500	0.0200	76981.9700
0.8300	2.4100	0.0200	78679.5000
0.8400	2.2700	0.0200	80253.2600
0.8400	2.0800	0.0200	81688.1900
0.8500	1.9200	0.0200	82911.4000
0.8600	1.7900	0.0200	83957.9300
0.8700	1.6700	0.0200	84856.9800
0.8800	0.0000	0.0200	85630.0100
0.9600	0.0000	0.0200	83917.4100
1.0100	0.0000	0.0200	82239.0600
1.0500	0.0000	0.0200	80594.2800
1.0800	0.0000	0.0200	78982.4000
1.1100	0.0000	0.0200	77402.7500
1.1200	0.0000	0.0200	75854.6900
1.1400	0.0000	0.0200	74337.6000
1.1400	0.0000	0.0200	72850.8500
1.1500	0.0000	0.0200	71393.8300
1.1600	0.0000	0.0200	69965.9500
1.1600	0.0000	0.0200	68566.6400
1.1600	0.0000	0.0200	67195.3000
1.1600	0.0000	0.0200	65851.4000
1.1600	0.0000	0.0200	64534.3700
1.1700	0.0000	0.0200	63243.6800
1.1700	0.0000	0.0200	61978.8100
1.1700	0.0000	0.0200	60739.2300
1.1700	0.0800	0.0200	59524.4500
1.1600	0.2600	0.0200	58444.0200
1.1500	0.4000	0.0200	57627.4700
1.1300	0.5000	0.0200	56998.8200
1.1200	0.5800	0.0200	56505.0500
1.1000	0.6500	0.0200	56109.9100
1.0900	0.7000	0.0200	55788.5200
1.0700	0.7500	0.0200	55523.5700
1.0600	0.7800	0.0200	55302.7900
1.0500	0.8100	0.0200	55117.2500
1.0500	0.8400	0.0200	54960.2900
1.0400	0.8600	0.0200	54826.8200

1.0300

0.8800

0.0200

54712.8900



Variable of Interest Business Structure(Business Structure(t-dt) +Construction Rate -Demolition)*dt Construction Rate Business_Structures*Construction_Fraction*Land_Availability_multiplier)

Causal variables Construction Rate Demolition Business Structures Land Availability multiplier

Data in Red means most influential to the variable of interest

7.3100	0.3800	0.7318	0.1300
4.0400	0.5100	1.1735	0.3097
2.6300	0.5900	1.4135	0.3343
2.1800	0.6300	1.5408	0.5220
2.1200	0.6600	1.6329	0.3582
2.1700	0.6900	1.7376	0.3734
2.2700	0.7100	1.8019	0.5700
2.3900	0.7500	1.8984	0.5874
2.5300	0.7800	2.0006	0.6056
2.6700	0.8200	2.1100	0.4164
2.8200	0.8500	2.2189	0.8593
3.0000	0.9000	2.3508	0.6652
3.1800	0.9300	2.4841	0.6869
3.2800	0.9800	2.6275	0.7096
3.0200	1.0300	2.7752	0.4889
3.2000	1.0600	2.9007	0.2528
3.3800	1.1100	3.0267	0.5228
3.5300	1.1600	3.1682	0.2704
3.7200	1.2000	3.2684	0.5526
3.8900	1.2500	3.4249	0.5718
4.1000	1.3000	3.5903	0.5918
4.3000	1.3600	3.7661	0.6127
4.1100	1.4200	3.9511	0.0000
4.1600	1.4800	4.1014	0.3286
4.3500	1.5200	4.2628	0.0000
4.5300	1.5900	4.4209	0.0000
4.7000	1.6400	4.5850	0.0000
4.8900	1.7000	4.7559	0.3784
4.8200	1.7700	4.9482	0.0000
4.6700	1.8300	5.1190	0.8123
4.8100	1.8800	5.2478	0.4208
4.9500	1.9500	5.3954	0.4359
5.0700	2.0000	5.5460	0.4514
4.5700	2.0700	5.6994	1.4023
2.5500	2.1100	5.7872	2.9038
2.5700	2.1200	5.7088	3.5062

2.4100	2.1400	5.6130	3.6251
2.2200	2.1400	5.5769	3.7914
1.3000	2.1400	5.4602	6.7073
4.2600	2.0700	5.0829	9.7967
4.2200	1.9400	4.5605	9.6060
4.3600	1.8200	4.0321	9.2448
4.4900	1.7000	3.5930	8.9453
5.3700	1.5700	3.1477	9.1426
9.1500	1.4400	2.7363	12.8084
7.6100	1.2200	2.1372	10.9789
6.3300	1.0500	1.7081	9.1617
5.4000	0.9000	1.3839	8.6645
123.5100	0.7700	1.1231	123.2887
0.0000	1.7100	0.0000	0.0000
0.0000	1.6800	0.0000	0.0000
0.0000	1.6500	0.0000	0.0000
0.0000	1.6100	0.0000	0.0000
0.0000	1.5800	0.0000	0.0000
0.0000	1.5500	0.0000	0.0000
0.0000	1.5100	0.0000	0.0000
0.0000	1.4900	0.0000	0.0000
0.0000	1.4600	0.0000	0.0000
0.0000	1.4200	0.0000	0.0000
0.0000	1.4000	0.0000	0.0000
0.0000	1.3700	0.0000	0.0000
0.0000	1.3500	0.0000	0.0000
0.0000	1.3200	0.0000	0.0000
0.0000	1.2900	0.0000	0.0000
0.0000	1.2600	0.0000	0.0000
0.0000	1.2400	0.0000	0.0000
5.5000	1.2200	0.0000	5.6852
12.1200	1.0800	0.1011	12.5358
8.5700	0.8100	0.2463	9.4913
6.1200	0.6300	0.2892	6.6272
4.4400	0.4900	0.2790	5.1527
3.2900	0.4000	0.2566	4.4300
2.5000	0.3200	0.2298	3.0861
1.9400	0.2700	0.2022	3.0405
1.5500	0.2200	0.1772	1.7823
1.2400	0.1800	0.1535	1.7586
1.0200	0.1600	0.1335	1.7362
0.8400	0.1300	0.1177	1.1542

49.1300

54.8300

0.1020

1.1404

bor_Availability_	DEMOTION(business_structures/ Average_Structure_Life_Time)	Labor Availability Multiplier (Labor/Job_Requirement)	
Labor Availability Multiplier	Business Structures	Labor	Job Requirement
6.5560	0.3778	0.0877	0.0162
2.4372	0.5164	0.0520	0.0234
0.6289	0.5870	0.0362	0.0266
0.0000	0.6278	0.0310	0.0278
0.6765	0.6588	0.0296	0.0285
0.7012	0.6880	0.0294	0.0288
0.0000	0.7176	0.0296	0.0292
0.0000	0.7488	0.0299	0.0295
0.0000	0.7816	0.0302	0.0299
0.0000	0.8166	0.0306	0.0302
0.0000	0.8534	0.0309	0.0306
0.0000	0.8930	0.0313	0.0310
0.0000	0.9350	0.0317	0.0314
0.0000	0.9800	0.0321	0.0318
0.0000	1.0258	0.0325	0.0322
0.0000	1.0658	0.0330	0.0323
0.0000	1.1088	0.0332	0.0325
1.1317	1.1538	0.0334	0.0326
0.0000	1.2016	0.0336	0.0328
0.0000	1.2518	0.0338	0.0330
0.0000	1.3046	0.0340	0.0332
0.0000	1.3606	0.0343	0.0335
0.0000	1.4192	0.0345	0.0337
0.0000	1.4732	0.0347	0.0337
0.0000	1.5268	0.0349	0.0338
0.0000	1.5834	0.0349	0.0338
0.0000	1.6422	0.0350	0.0338
0.0000	1.7034	0.0350	0.0339
0.0000	1.7672	0.0351	0.0339
0.0000	1.8282	0.0351	0.0339
0.0000	1.8850	0.0351	0.0337
0.0000	1.9436	0.0350	0.0336
0.0000	2.0036	0.0349	0.0334
0.0000	2.0650	0.0347	0.0333
0.0000	2.1152	0.0346	0.0329
0.0000	2.1238	0.0343	0.0320

2.1298	2.1326	0.0336	0.0311
0.0000	2.1382	0.0328	0.0303
0.0000	2.1400	0.0319	0.0295
2.1557	2.0710	0.0310	0.0277
0.0000	1.9446	0.0296	0.0254
2.0293	1.8212	0.0275	0.0233
0.0000	1.6976	0.0254	0.0214
1.8962	1.5736	0.0232	0.0195
0.0000	1.4350	0.0212	0.0175
1.6991	1.2232	0.0192	0.0148
1.5919	1.0466	0.0183	0.0125
1.5028	0.8990	0.0170	0.0107
1.4171	0.7730	0.0156	0.0092
0.0000	1.7126	0.0142	0.0209
0.0000	1.6784	0.0057	0.0216
0.0000	1.6448	0.0013	0.0221
0.0000	1.6118	0.0068	0.0226
0.0000	1.5796	0.0111	0.0229
0.0000	1.5482	0.0144	0.0231
0.0000	1.5170	0.0168	0.0233
0.0000	1.4868	0.0186	0.0234
0.0000	1.4570	0.0199	0.0235
0.0000	1.4278	0.0208	0.0236
0.0000	1.3994	0.0215	0.0236
0.0000	1.3712	0.0220	0.0237
0.0000	1.3440	0.0224	0.0237
0.0000	1.3170	0.0226	0.0237
0.0000	1.2908	0.0228	0.0237
0.0000	1.2648	0.0229	0.0237
0.0000	1.2396	0.0230	0.0237
0.0000	1.2148	0.0231	0.0237
0.0476	1.0804	0.0232	0.0215
0.1520	0.8166	0.0225	0.0165
0.4610	0.6286	0.0206	0.0127
0.2850	0.4938	0.0183	0.0100
0.6555	0.3950	0.0158	0.0080
0.3647	0.3214	0.0136	0.0065
0.7810	0.2650	0.0116	0.0054
0.4164	0.2208	0.0098	0.0045
0.4314	0.1856	0.0083	0.0037
0.0000	0.1570	0.0071	0.0032
0.4617	0.1334	0.0060	0.0027

0.4715

0.1140

0.0051

0.0023

**Data Set of
Urban**

Months	Populations	Birth Rate	Death Rate	In Migration
1	50000.0000	750.0000	746.2700	9010.0000
2	55013.7300	825.2100	821.1000	7421.8900
3	58038.6300	870.5800	866.2500	6802.6800
4	60202.5500	903.0400	898.5500	6717.2600
5	62108.0900	931.6200	926.9900	6836.6400
6	63980.7200	959.7100	954.9400	7028.9000
7	65895.9400	988.4400	983.5200	7250.8800
8	67880.0700	1018.2000	1013.1400	7489.6300
9	69944.3600	1049.1700	1043.9500	7741.7400
10	72095.7700	1081.4400	1076.0600	8006.7200
11	74340.2100	1115.1000	1109.5600	8285.0300
12	76683.5700	1150.2500	1144.5300	8577.4900
13	79132.0900	1186.9800	1181.0800	8885.0600
14	81692.4900	1225.3900	1219.2900	9208.8300
15	84372.0200	1265.5800	1259.2800	9550.0200
16	87178.5800	1307.6800	1301.1700	9906.5000
17	90117.2900	1351.7600	1345.0300	10264.9300
18	93179.5600	1397.6900	1390.7400	10634.8500
19	96367.0000	1445.5100	1438.3100	11019.7600
20	99684.6000	1495.2700	1487.8300	11421.3700
21	103138.6400	1547.0800	1539.3800	11840.8900
22	106736.1400	1601.0400	1593.0800	12279.4600
23	110484.6700	1657.2700	1649.0200	12738.2200
24	114392.3600	1715.8900	1707.3500	13218.4000
25	118467.9100	1777.0200	1768.1800	13706.3900
26	122705.7000	1840.5900	1831.4300	14205.3800
27	127103.7800	1906.5600	1897.0700	14720.9500
28	131665.9200	1974.9900	1965.1600	15255.3500
29	136397.8200	2045.9700	2035.7900	15809.8000
30	141305.9700	2119.5900	2109.0400	16385.2800
31	146397.3200	2195.9600	2185.0300	16973.8900
32	151670.3400	2275.0600	2263.7400	17568.4800
33	157116.5200	2356.7500	2345.0200	18176.8800
34	162735.8000	2441.0400	2428.8900	18801.6200
35	168530.7000	2527.9600	2515.3800	19443.6200
36	174504.4400	2617.5700	2604.5400	20081.2600

37	180638.3700	2709.5800	2696.1000	20651.4000
38	186852.1800	2802.7800	2788.8400	21195.2200
39	193113.1700	2896.7000	2882.2900	21724.0500
40	199402.5800	2991.0400	2976.1600	22240.3700
41	205705.6200	3085.5800	3070.2300	22625.8100
42	211890.3400	3178.3600	3162.5400	22844.7500
43	217799.6700	3267.0000	3250.7400	22984.5600
44	223376.5100	3350.6500	3333.9800	23074.6200
45	228597.6800	3428.9700	3411.9100	23127.3900
46	233454.3100	3501.8100	3484.3900	23144.3900
47	237939.7800	3569.1000	3551.3400	23350.5000
48	242272.8500	3634.0900	3616.0100	23453.4000
49	246362.5000	3695.4400	3677.0500	23484.6400
50	250156.5300	3752.3500	3733.6800	23466.0200
51	253628.6900	3804.4300	3785.5000	21640.0300
52	254997.3500	3824.9600	3805.9300	20079.1400
53	254695.7300	3820.4400	3801.4300	18781.6300
54	253120.7100	3796.8100	3777.9200	17718.2000
55	250608.1500	3759.1200	3740.4200	16848.8400
56	247427.0400	3711.4100	3692.9400	16133.2700
57	243784.6100	3656.7700	3638.5800	15535.9700
58	239836.0100	3597.5400	3579.6400	15027.9600
59	235694.9800	3535.4200	3517.8400	14586.6500
60	231443.6200	3471.6500	3454.3800	14195.0200
61	227140.4200	3407.1100	3390.1600	13840.4700
62	222826.6100	3342.4000	3325.7700	13513.8300
63	218530.9300	3277.9600	3261.6600	13208.4600
64	214273.2300	3214.1000	3198.1100	12919.6300
65	210066.9900	3151.0000	3135.3300	12643.9100
66	205921.2200	3088.8200	3073.4500	12378.8700
67	201841.7500	3027.6300	3012.5600	12122.7600
68	197832.2300	2967.4800	2952.7200	11874.3200
69	193894.7300	2908.4200	2893.9500	11734.5900
70	190132.2100	2851.9800	2837.7900	11798.8600
71	186734.6800	2801.0200	2787.0800	11952.2000
72	183762.0400	2756.4300	2742.7200	12132.0900
73	181206.8900	2718.1000	2704.5800	12307.9500
74	179031.8100	2685.4800	2672.1200	12466.7500
75	177189.3800	2657.8400	2644.6200	12604.4300
76	175631.8700	2634.4800	2621.3700	12721.1700
77	174315.6000	2614.7300	2601.7300	12818.9700
78	173202.3400	2598.0400	2585.1100	12900.4000



79	172259.4700	2583.8900	2571.0400	12968.0000
Final	171459.5700			


Out Migration	Labor	Labor Availability	Labor Availability Multiplier	Job Requirement
4000.0000	17500.0000	0.8800	0.6500	20000.0000
4401.1000	19254.8100	0.9400	0.7600	20377.7800
4643.0900	20313.5200	0.9700	0.8000	20894.2200
4816.2000	21070.8900	0.9800	0.8100	21481.2100
4968.6500	21737.8300	0.9800	0.8100	22108.9300
5118.4600	22393.2500	0.9800	0.8200	22767.7900
5271.6800	23063.5800	0.9800	0.8100	23455.7900
5430.4100	23758.0200	0.9800	0.8100	24173.4600
5595.5500	24480.5300	0.9800	0.8100	24922.2100
5767.6600	25233.5200	0.9800	0.8100	25703.8300
5947.2200	26019.0700	0.9800	0.8100	26520.3200
6134.6900	26839.2500	0.9800	0.8100	27373.8700
6330.5700	27696.2300	0.9800	0.8100	28266.8600
6535.4000	28592.3700	0.9800	0.8100	29201.9000
6749.7600	29530.2100	0.9800	0.8100	30181.7900
6974.2900	30512.5000	0.9800	0.8100	31207.6700
7209.3800	31541.0500	0.9800	0.8100	32273.5000
7454.3600	32612.8500	0.9800	0.8100	33382.1200
7709.3600	33728.4500	0.9800	0.8000	34536.0000
7974.7700	34889.6100	0.9800	0.8000	35737.5500
8251.0900	36098.5200	0.9800	0.8000	36989.3300
8538.8900	37357.6500	0.9800	0.8000	38294.0200
8838.7700	38669.6400	0.9800	0.8000	39654.5100
9151.3900	40037.3300	0.9700	0.8000	41073.8800
9477.4300	41463.7700	0.9700	0.8000	42546.9400
9816.4600	42947.0000	0.9700	0.8000	44073.8600
10168.3000	44486.3200	0.9700	0.8000	45657.2300
10533.2700	46083.0700	0.9700	0.8000	47299.4300
10911.8300	47739.2400	0.9700	0.8000	49002.8400
11304.4800	49457.0900	0.9700	0.8000	50769.9000
11711.7900	51239.0600	0.9700	0.8000	52598.1700
12133.6300	53084.6200	0.9700	0.8000	54483.1300
12569.3200	54990.7800	0.9700	0.8000	56426.7400
13018.8600	56957.5300	0.9700	0.8000	58430.4300
13482.4600	58985.7500	0.9800	0.8000	60495.4600
13960.3600	61076.5500	0.9800	0.8000	62610.5100

14451.0700	63223.4300	0.9800	0.8000	64734.3500
14948.1700	65398.2600	0.9800	0.8100	66866.9700
15449.0500	67589.6100	0.9800	0.8100	69005.2700
15952.2100	69790.9000	0.9800	0.8100	71145.1900
16456.4500	71996.9700	0.9800	0.8200	73216.2500
16951.2300	74161.6200	0.9900	0.8200	75160.7500
17423.9700	76229.8800	0.9900	0.8300	76981.9700
17870.1200	78181.7800	0.9900	0.8300	78679.5000
18287.8100	80009.1900	1.0000	0.8400	80253.2600
18676.3500	81709.0100	1.0000	0.8400	81688.1900
19035.1800	83278.9200	1.0000	0.8500	82911.4000
19381.8300	84795.5000	1.0100	0.8600	83957.9300
19709.0000	86226.8800	1.0200	0.8700	84856.9800
20012.5200	87554.7800	1.0200	0.8800	85630.0100
20290.3000	88770.0400	1.0600	0.9600	83917.4100
20399.7900	89249.0700	1.0900	1.0100	82239.0600
20375.6600	89143.5100	1.1100	1.0500	80594.2800
20249.6600	88592.2500	1.1200	1.0800	78982.4000
20048.6500	87712.8500	1.1300	1.1100	77402.7500
19794.1600	86599.4600	1.1400	1.1200	75854.6900
19502.7700	85324.6100	1.1500	1.1400	74337.6000
19186.8800	83942.6000	1.1500	1.1400	72850.8500
18855.6000	82493.2400	1.1600	1.1500	71393.8300
18515.4900	81005.2700	1.1600	1.1600	69965.9500
18171.2300	79499.1500	1.1600	1.1600	68566.6400
17826.1300	77989.3100	1.1600	1.1600	67195.3000
17482.4700	76485.8300	1.1600	1.1600	65851.4000
17141.8600	74995.6300	1.1600	1.1600	64534.3700
16805.3600	73523.4500	1.1600	1.1700	63243.6800
16473.7000	72072.4300	1.1600	1.1700	61978.8100
16147.3400	70644.6100	1.1600	1.1700	60739.2300
15826.5800	69241.2800	1.1600	1.1700	59524.4500
15511.5800	67863.1600	1.1600	1.1600	58444.0200
15210.5800	66546.2700	1.1500	1.1500	57627.4700
14938.7700	65357.1400	1.1500	1.1300	56998.8200
14700.9600	64316.7100	1.1400	1.1200	56505.0500
14496.5500	63422.4100	1.1300	1.1000	56109.9100
14322.5400	62661.1300	1.1200	1.0900	55788.5200
14175.1500	62016.2800	1.1200	1.0700	55523.5700
14050.5500	61471.1600	1.1100	1.0600	55302.7900
13945.2500	61010.4600	1.1100	1.0500	55117.2500
13856.1900	60620.8200	1.1000	1.0500	54960.2900

13780.7600	60290.8200	1.1000	1.0400	54826.8200
	60010.8500	1.1000	1.0300	54712.8900

	Analysis Part	Variable of Interest	Populations (Populations(t - dt) + (In_Migratic Death_F	
Job Attractive Multiplier		Causal variables	In Migration	Birth Rate
2.25		<i>Data represented in Red and Italic means most influential to the variable of interest</i>		
1.69			1588.1100	75.2100
1.47			619.2100	45.3700
1.39			85.4200	32.4600
1.38			119.3800	28.5800
1.37			192.2600	28.0900
1.38			221.9800	28.7300
1.38			238.7500	29.7600
1.38			252.1100	30.9700
1.39			264.9800	32.2700
1.39			278.3100	33.6600
1.4			292.4600	35.1500
1.4			307.5700	36.7300
1.41			323.7700	38.4100
1.41			341.1900	40.1900
1.42			356.4800	42.1000
1.42			358.4300	44.0800
1.43			369.9200	45.9300
1.43			384.9100	47.8200
1.43			401.6100	49.7600
1.44			419.5200	51.8100
1.44			438.5700	53.9600
1.44			458.7600	56.2300
1.44			480.1800	58.6200
1.45			487.9900	61.1300
1.45			498.9900	63.5700
1.45			515.5700	65.9700
1.45			534.4000	68.4300
1.45			554.4500	70.9800
1.45			575.4800	73.6200
1.45		588.6100	76.3700	
1.45		594.5900	79.1000	
1.45		608.4000	81.6900	
1.44		624.7400	84.2900	
1.44		642.0000	86.9200	
1.44		637.6400	89.6100	

1.43		570.1400	92.0100
1.42		543.8200	93.2000
1.41		528.8300	93.9200
1.39		516.3200	94.3400
1.37		385.4400	94.5400
1.35		218.9400	92.7800
1.32		139.8100	88.6400
1.29		90.0600	83.6500
1.26		52.7700	78.3200
1.24		17.0000	72.8400
1.23		206.1100	67.2900
1.21		102.9000	64.9900
1.19		31.2400	61.3500
1.17		18.6200	56.9100
1.07		1825.9900	52.0800
0.98		1560.8900	20.5300
0.92		1297.5100	4.5200
0.87		1063.4300	23.6300
0.84		869.3600	37.6900
0.82		715.5700	47.7100
0.8		597.3000	54.6400
0.78		508.0100	59.2300
0.77		441.3100	62.1200
0.77		391.6300	63.7700
0.76		354.5500	64.5400
0.76		326.6400	64.7100
0.76		305.3700	64.4400
0.75		288.8300	63.8600
0.75		275.7200	63.1000
0.75		265.0400	62.1800
0.75		256.1100	61.1900
0.75		248.4400	60.1500
0.76		139.7300	59.0600
0.78		64.2700	56.4400
0.8		153.3400	50.9600
0.83		179.8900	44.5900
0.85		175.8600	38.3300
0.87		158.8000	32.6200
0.89		137.6800	27.6400
0.91		116.7400	23.3600
0.92		97.8000	19.7500
0.93		81.4300	16.6900

0.94		67.6000	14.1500
0.95		12968.0000	2583.8900

$$\text{In Migration} = (\text{Populations} * \text{In_Migration_Fraction} * \text{Job_Attractive_Multiplier}) - (\text{Out_Migration} + \text{Birth_Rate} - \text{Death_Rate}) * \text{dt}$$

Out Migration	Death Rate	Populations	Job Attractive Multiplier
401.1000	74.8300	902.4714	2240.0000
241.9900	45.1500	408.9665	968.2416
173.1100	32.3000	254.4770	371.4472
152.4500	28.4400	211.8960	48.1620
149.8100	27.9500	206.7384	49.6865
153.2200	28.5800	209.9081	51.1846
158.7300	29.6200	219.0480	0.0000
165.1400	30.8100	227.8976	0.0000
172.1100	32.1100	237.5157	55.9555
179.5600	33.5000	249.5817	0.0000
187.4700	34.9700	260.5816	59.4722
195.8800	36.5500	274.2342	0.0000
204.8300	38.2100	286.7648	63.3057
214.3600	39.9900	302.2510	0.0000
224.5300	41.8900	316.5800	67.4976
235.0900	43.8600	333.8375	0.0000
244.9800	45.7100	347.8739	72.0938
255.0000	47.5700	364.6431	0.0000
265.4100	49.5200	379.5334	0.0000
276.3200	51.5500	395.1422	79.7477
287.8000	53.7000	414.4320	0.0000
299.8800	55.9400	431.8307	0.0000
312.6200	58.3300	450.1659	0.0000
326.0400	60.8300	469.5034	91.5139
339.0300	63.2500	491.5836	0.0000
351.8400	65.6400	510.1773	0.0000
364.9700	68.0900	529.2082	0.0000
378.5600	70.6300	548.9004	0.0000
392.6500	73.2500	569.3454	0.0000
407.3100	75.9900	590.5966	0.0000
421.8400	78.7100	611.6703	0.0000
435.6900	81.2800	631.7569	0.0000
449.5400	83.8700	651.8365	125.6932
463.6000	86.4900	667.5725	0.0000
477.9000	89.1600	688.1748	0.0000

490.7100	91.5600	706.6287	139.6036
497.1000	92.7400	710.8599	144.5107
500.8800	93.4500	711.2485	149.4817
503.1600	93.8700	709.4454	308.9811
504.2400	94.0700	700.8980	319.0441
494.7800	92.3100	677.8453	329.1290
472.7400	88.2000	638.2076	508.5368
446.1500	83.2400	588.9143	522.7192
417.6900	77.9300	538.8247	536.1036
388.5400	72.4800	489.5483	365.7563
358.8300	66.9500	444.9586	186.7634
346.6500	64.6700	426.3741	380.7036
327.1700	61.0400	395.8781	387.6366
303.5200	56.6300	361.1917	394.1800
277.7800	51.8200	324.9942	2001.2522
109.4900	20.4300	117.1573	1826.1266
24.1300	4.5000	23.6470	1223.9873
126.0000	23.5100	115.9215	1018.7829
201.0100	37.5000	174.8742	607.4897
254.4900	47.4800	213.7706	400.9730
291.3900	54.3600	238.9434	395.8833
315.8900	58.9400	252.7104	390.0554
331.2800	61.8000	258.4003	191.8688
340.1100	63.4600	261.8838	0.0000
344.2600	64.2200	265.0771	185.1549
345.1000	64.3900	262.2796	0.0000
343.6600	64.1100	261.1773	0.0000
340.6100	63.5500	258.8682	174.8247
336.5000	62.7800	252.3744	0.0000
331.6600	61.8800	248.7462	0.0000
326.3600	60.8900	244.7682	0.0000
320.7600	59.8400	240.5712	0.0000
315.0000	58.7700	236.2500	158.2658
301.0000	56.1600	228.7612	310.2316
271.8100	50.7100	212.0059	304.2115
237.8100	44.3600	190.2490	448.1632
204.4100	38.1400	169.6620	294.0193
174.0100	32.4600	147.9054	289.9310
147.3900	27.5000	128.2331	286.4509
124.6000	23.2500	110.8947	283.5030
105.3000	19.6400	95.8245	140.5055
89.0600	16.6200	81.9359	139.4525

75.4300
13780.7600

14.0700
2571.0400

70.1495
60.1525

138.5619
137.8076