



February 23, 2007

Ms. Michele Baker, Program Administrator for Engineering Services
Pasco County
7530 Little Road
New Port Richey, Florida 34654

Via: Email only to mbaker@pascofl.net

RE: "Safe Level" of Transportation Impact Fees

Dear Ms. Baker:

Pursuant to our contract with Pasco County this letter briefly summarizes our findings concerning Pasco County's proposed impact fees (Option 3A) and our recommendations to the County. Along with this letter I am transmitting to you our complete report. Before turning to our findings and recommendations, I want to take this opportunity to thank you and your colleagues for your inputs, guidance and intellectual support during our study. The study has benefited from our interactions and from the inputs of the advisory committee on transportation impact fees. However, any errors of omission or of commission are my sole responsibility.

Findings

Economic theory demonstrates that at some level higher impact fees will result in lower levels of construction activity. Interestingly, we could not find any definitive studies on this issue. However, experts, decision makers, staff, and the general public all agree that at some level impact fees will inhibit construction activity. The relationship between the percentage change in impact fees and the percentage change in construction activity is termed the elasticity of construction. If the elasticity of construction is equal to 1.0, this would mean that a 10% increase in the impact fee would cause a 10% decrease in construction activity. The result would be no increase in total fee revenue, since the increase in the fee would be offset by the decrease in construction activity. The consequential effects would be less construction activity, lower growth in ad valorem tax revenues, and inhibited economic development. Therefore, determining the elasticity of construction activity relative to transportation impact fees is valuable to informing the decision making process.

To determine the relationship between transportation impact fees and construction activity we developed a set of econometric models. The models estimate the volume of construction activity based on the level of impact fees and other explanatory variables including income, employment, and property taxes, location, roadway access, and other variables. The models were estimated using data from 40 Florida counties for 2005 (the latest year that complete data were available). Statistically significant findings were found for offices, locally serving retail, regional serving retail, hotels, industrial uses, and warehousing. We did not find statistically significant results for residential uses (single-family or multifamily units) or for hospitals or institutional uses including government uses. This is not to suggest that these uses are insensitive to transportation impact fees. However, at the fee levels in our database for Florida counties we could not find any significant impacts. Table 1 below summarizes the results of our research.

Table 1. Summary of Findings for Transportation Impact Fees

Land Use	Transportation Impact Fee Coefficient	t-Statistic	Prob.	R Squared	F Statistic
Local Retail	-16.986	-1.923	0.068	0.730	0.000
Regional Retail	-20.529	-1.377	0.181	0.594	0.000
Industrial	-27.141	-1.400	0.182	0.710	0.016
Warehouse	-40.904	-1.803	0.085	0.608	0.000
Hotel	-36.100	-1.714	0.101	0.403	0.004
Office	-50.341	-1.275	0.218	0.765	0.000

There is a separate equation for each category of land use. The regression coefficients for the transportation impact fees are uniformly negative. The coefficients indicate that for every \$1 increase in the impact fee construction activity will decline by the square footage of the coefficient. For example, if the impact fee for local residential retailing increases by \$1, the volume of construction of local retail activity will decline by 16.986 square feet. The coefficient is statistically significant based on the t-statistic. The “prob” column measures the probability that the coefficient is equal to zero. The R-square is a measure of percentage of variation that the equation explains. The F statistic is a measure of the probability that the equation as a whole not statistically significant. These statistics prove that the models have explanatory power and are statistically reliable.

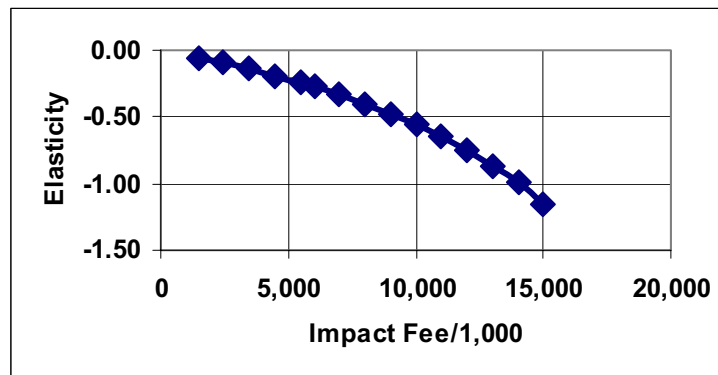
Using these equations we can determine the elasticity of construction relative to the level of transportation impact fees. Table 2 below presents the estimated elasticities measured at the average fee levels and at the average volumes of construction, by type of construction, in the sample. For example, the average volume of construction in locally serving retail buildings was 383,708 square feet across our sample. The average transportation impact fee for this category was \$5,475 per thousand square feet. The elasticity of construction at these levels is -0.24. Thus, increasing the fee on local serving retail by 10% will decrease the volume of activity by 2.4%.

Table 2. Transportation Elasticities Measured the Average Levels of the Fees and the Average Levels of Construction Activity

Land Use	Average Sq. Ft.	Average Fee	Elasticity
Local Retail	383,708	5,457	-0.24
Regional Retail			-0.18
Industrial	462,348	4,068	-0.23
Warehouse	140,975	1,212	-0.08
Hotel	738,284	1,497	-0.49
Office	223,376	1,359	-0.26
	449,531	2,311	

Table 2 measures the elasticities at their averages. However, the elasticity of construction relative to the fee is not linear. As Figure 1 shows, the relationship is highly non linear. As the impact fee increases above its mean value of \$5,475 the negative impact on construction activity increases. At a level of approximately \$14,000 per thousand square feet the elasticity is 1.0. Imposing impact fees higher than this will not produce any increase in transportation impact fee revenues.

Figure 1. Elasticity of Local Serving Retail Relative to the Transportation Impact Fee



Pasco County’s proposed transportation impact fees are higher than the averages for our sample. Table 3 displays the elasticities for construction activity in Pasco County at the fee levels proposed as of 2012. The proposed fees are phased in and escalated over time under Option 3A, and Table 3 uses 2012 as an illustrative mid-point for the phase in process. The elasticities for hotel, office, and industrial all exceed 1.0. Fees at these levels are so high as to be counter productive. The increase in the fee will depress construction activity by a greater percentage than in the fee increase resulting in lower fee revenue and in depressed construction activity.

Table 3. Elasticity of Construction Relative to the Proposed Transportation Impact Fee Option 3A at 2012

Proposed Fees 2012	Proposed Fees	Fee / SF	Elasticity
Single Family	\$12,948		
Multifamily	\$9,508		
Retail Local	\$16,669	0.04755	-0.8077
Retail Regional	\$15,014	0.03196	-0.8077
Hotel	\$6,539	0.36396	-2.3606
Office	\$13,785	0.06481	-3.2627
Industrial	\$7,482	0.04477	-1.2151
Warehouse	\$5,738	0.01176	-0.4811

Furthermore, although the elasticities for retail and for warehouse are less than 1.0, they are high enough to be counter productive as well. The reason is that increases in fee levels will depress construction activity. With an elasticity below 1.0, the higher fees will indeed generate higher levels of fee revenue. However, construction activity will be lower. The lower levels of construction activity mean reduced ad valorem tax revenues and a reduction in economic activity, jobs and incomes. Table 4 illustrates the tradeoff between the higher fee levels and the impact on ad valorem revenue. The impact fees are a one-time revenue. The loss of ad valorem taxes occurs indefinitely. A 20-year horizon is used in Table 4 with a discount rate of 6% to bring the ad valorem losses over the 20-year horizon to their present value. The value per sf (square foot) reflects current values.

Table 4. Impact of the Proposed Fee Schedule as of 2012 on Ad Valorem Tax Revenues and Impact Fee Revenues

Category	Value / SF	New Fee	Change in SF 2012	Change Ad Valorem PV for 20 Years	Fee Change	Net Change
Retail Local	150	\$16,669	(149,371)	(\$1,526,528)	\$732,143	(\$794,385)
Retail Regional	200	\$15,014	(324,329)	(\$4,419,389)	(\$89,084)	(\$4,508,473)
Hotel	100	\$6,539	(18)	(\$186,920)	(\$45,494)	(\$232,414)
Office	200	\$13,785	(404,079)	(\$5,506,091)	(\$2,504,653)	(\$8,010,744)
Industrial	150	\$7,482	(162,982)	(\$1,665,623)	(\$266,581)	(\$1,932,204)
Warehouse	100	\$5,738	(196,164)	(\$1,336,492)	\$1,499,304	\$162,813
						=====
						(\$15,315,408)

Recommendations

Based on our findings presented above, we recommend the following.

(1) Residential, Hospital and Institutional Categories

The fees proposed under Option 3A are recommended. In fact any of the options proposed by Tindale-Oliver are recommended, because there is no significant elasticity within the fee ranges proposed.

(2) Office and Hotel Categories

We recommend lowering these fees from their current levels. The fees so high, that the elasticity of construction exceeds -1.0. Lower the fees will produce more construction activity and more fee revenue along with improved economic impacts.

(3) All other categories of Non Residential Construction

We recommend leaving these fees at their current levels. The analysis demonstrates that raising the impact fees will generate more fee revenue. However, the depressing impact on construction activity will reduce ad valorem revenues by more than the dollar increase in the fees. Furthermore, maintaining the fees at current levels for these property categories avoids the economic harm that would result from raising the fees.

(4) Annual Escalation

The current impact fee ordinance contains an escalator of 6.6% based on projected increases in construction and right of way costs. This is a reasonable escalator that is supported by current data. We recommend retaining the escalator at its current levels.

(5) Rental Apartments

Rental apartments are included in the multifamily construction category. There is no method to separate rental units from condominiums or owner occupied multifamily units. Higher impact fees will depress construction of rental units. However, we cannot present any empirical data on which to make a recommendation. Other policy considerations may be more important for this category of property.

Appendix #1 contains the proposed fee schedule Option 3A, our recommended fee schedule and a comparison of the two schedules. The solid yellow lines separate the schedules.

Appendix #2 contains the database used in the regression analysis.

Please feel free to contact me with any questions you may have. I look forward to participating in the upcoming public hearings on this matter.

Sincerely,

Henry H.
Fishkind, Ph.D.

Digitally signed by Henry H.
Fishkind, Ph.D.
DN: cn=Henry H. Fishkind, Ph.D.,
c=US, o=Fishkind & Associates,
Inc., email=hankf@fishkind.com
Date: 2007.02.27 08:20:53 -05'00'

Henry H. Fishkind, Ph.D.
President

Pasco County Transportation Impact Fees –
Maximum levels Without Economic Harm

Fishkind & Associates

Back Up Data

August 10, 2007

obs		Land Use					
		OFF	WARE	RR	LR	IND	HOTEL
1	Broward	1,470,100	3,012,286	1,149,955	712,701	163,454	380,022
2	Lee	720,582	2,031,541	824,421	1,161,879	336,780	354,573
3	Clay	118,788	136,280	165,189	81,362	13,270	-
4	Duval	1,237,973	2,170,129	604,174	1,235,466	155,703	477,783
5	Nassau	13,028	23,735	37,528	35,091	4,661	13,232
6	St Johns	75,715	164,012	175,971	139,277	19,302	9,252
7	Dade	2,025,161	2,630,842	2,062,061	1,524,034	651,068	719,593
8	Collier	-	-	180,057	29,530	24,267	44,521
9	Lake	148,604	348,872	222,226	267,401	118,749	19,879
10	Orange	1,475,982	2,307,836	1,710,910	1,077,954	81,810	1,914,834
11	Osceola	116,771	342,265	170,946	143,588	27,480	403,311
12	Seminole	79,530	329,387	90,726	113,762	98,057	23,874
13	Manatee	292,353	405,411	336,359	355,185	792,254	98,461
14	Sarasota	193,080	224,704	275,182	148,906	54,491	267,820
15	Hernando	137,135	123,421	365,363	66,436	9,651	-
16	Hillsborough	1,278,292	1,575,547	502,053	850,058	151,808	421,296
17	Pasco	243,591	558,769	538,090	401,489	191,400	20,576
18	Pinellas	492,059	455,687	438,951	127,822	353,610	93,290
19	Palm Beach	674,204	1,220,899	1,185,213	781,814	77,193	65,546
20	Escambia	-	-	-	-	-	-
21	Santa Rosa	404,656	195,902	392,025	303,176	191,393	76,997
22	Charlotte	-	-	-	-	-	-
23	Leon	452,620	217,524	253,013	232,031	2,290	94,090
24	Gadsden	21,284	15,837	78,669	26,548	65,538	-
25	Martin	48,743	134,060	135,393	88,245	54,367	-
26	S . Lucie	603,829	664,367	289,984	428,235	222,389	136,056
27	Polk	921,634	3,023,111	2,139,383	1,539,557	609,857	131,454
28	Flagler	14,535	4,522	6,177	64,753	2,904	31,835
29	Volusia	2,397	4,992	3,790	691	13,840	-
30	Okaloosa	109,395	149,779	81,950	232,954	10,485	41,008
31	Alachua	224,775	428,098	84,303	106,066	30,489	44,674
32	Brevard	313,855	574,342	725,415	359,041	173,047	94,552
33	Marion	232,713	538,766	436,137	148,726	119,892	26,148
34	Bay	208,244	187,089	182,014	136,173	23,518	26,481

Road Impact Fees

obs	OTIP	WTIP	ITIP	HTIP	LRTIP	RRTIP
1	Broward	\$ 282	\$ 358	\$ 322	\$ 1,341	\$ 1,132
2	Lee	\$ 2,336	\$ 1,461	\$ 2,237	\$ 5,063	\$ 5,063
3	Clay	\$ -	\$ -	\$ -	\$ -	\$ -
4	Duval	\$ -	\$ -	\$ -	\$ -	\$ -
5	Nassau	\$ 1,005	\$ 765	\$ 866	\$ 2,073	\$ 1,393
6	St Johns	\$ 5,103	\$ 2,632	\$ 3,344	\$ 5,669	\$ 6,740
7	Dade	\$ 1,690	\$ 831	\$ 1,568	\$ 1,897	\$ 3,421
8	Collier	\$ 7,308	\$ -	\$ 4,334	\$ 25,318	\$ 12,607
9	Lake	\$ 2,991	\$ 1,535	\$ 1,446	\$ 5,844	\$ 2,174
10	Orange	\$ 5,261	\$ 2,158	\$ 2,520	\$ 11,597	\$ 7,517
11	Osceola	\$ 5,190	\$ 1,780	\$ 2,362	\$ -	\$ 9,560
12	Seminole	\$ 1,925	\$ 579	\$ 717	\$ 3,721	\$ 3,158
13	Manatee	\$ 3,537	\$ 1,116	\$ 1,851	\$ 7,226	\$ 5,352
14	Sarasota	\$ 3,509	\$ 2,890	\$ 1,169	\$ 10,730	\$ 11,235
15	Hernando	\$ 2,567	\$ 1,308	\$ 3,454	\$ 5,411	\$ 5,411
16	Hillsborough	\$ 1,955	\$ 1,549	\$ 1,272	\$ 2,418	\$ 4,619
17	Pasco	\$ 4,392	\$ 1,546	\$ 2,767	\$ 7,461	\$ 6,181
18	Pinellas	\$ 2,306	\$ 1,010	\$ 1,760	\$ 7,727	\$ 7,727
19	Palm Beach	\$ 1,535	\$ 640	\$ 1,237	\$ 6,335	\$ 3,401
20	Escambia	\$ -	\$ -	\$ -	\$ -	\$ -
21	Santa Rosa	\$ -	\$ -	\$ -	\$ -	\$ -
22	Charlotte	\$ 2,097	\$ 599	\$ 1,325	\$ 1,818	\$ 2,748
23	Leon	\$ -	\$ -	\$ -	\$ -	\$ -
24	Gadsden	\$ -	\$ -	\$ -	\$ -	\$ -
25	Martin	\$ -	\$ -	\$ -	\$ -	\$ -
26	S1. Lucie	\$ 3,833	\$ 1,709	\$ 1,572	\$ 9,969	\$ 7,488
27	Polk					
28	Flagler					
29	Volusia	\$ 2,935	\$ 760	\$ 1,118	\$ 3,513	\$ 2,825
30	Okaloosa	\$ -	\$ -	\$ -	\$ -	\$ -
31	Alachua	\$ 1,821	\$ 1,072	\$ 1,292	\$ 3,814	\$ 3,814
32	Brevard	\$ 2,154	\$ -	\$ 862	\$ 1,834	\$ 1,838
33	Marion	\$ 3,047	\$ 15,560	\$ 1,612	\$ 9,251	\$ 5,502
34	Bay	\$ 2,858	\$ 1,563	\$ 1,131	\$ 23,668	\$ 5,193

obs	County operating millage OPP_M	Debt Service SCS_M	schools SB_M	Other millage OT_M	total millage T_M
1	Broward	6.29	0.49	7.84	8.74
2	Lee	4.95	0	7.88	5.85
3	Clay	8.85	0	7.98	0.9
4	Duval	8.75	0	8	1.84
5	Nassau	6.43	0	8.08	3.27
6	St Johns	5.85	0	8	1.8
7	Dade	5.71	0.89	7.95	8.51
8	Collier	4.28	0	5.97	2.47
9	Lake	5.8	0	7.98	4.54
10	Orange	5.16	0	7.76	5.74
11	Osceola	6.24	0	8.13	18.67
12	Seminole	5.13	0.08	7.97	17.52
13	Manatee	7.57	0.13	7.93	17.63
14	Sarasota	3.88	0.15	7.86	18.28
15	Hernando	8.21	0.1	8.51	15.17
16	Hillsborough	6.93	0.12	7.93	19.66
17	Pasco	6.68	0	7.51	23.27
18	Pinellas	6.14	0	8.39	17.06
19	Palm Beach	4.45	0.27	7.89	22.4
20	Escambia	8.76	0	8.03	20.74
21	Santa Rosa	6.62	0	7.59	18.58
22	Charlotte	5.37	0	7.31	14.9
23	Leon	8.54	0	8.01	15.84
24	Gadsden	10	0	8.12	20.41
25	Martin	4.9	0.33	7.3	19.06
26	S1. Lucie	7.34	0	7.92	17.12
27	Polk	8.73	0	8.08	23.42
28	Flagler	4.84	0.15	8.09	19.99
29	Volusia	5.3	0	7.94	16.31
30	Okaloosa	4.25	0	8.06	22.77
31	Alachua	8.99	0.25	8.12	15.06
32	Brevard	3.62	0	7.96	24.68
33	Marion	4.87	0	8.01	18.71
34	Bay	5.66	0	7.94	18.05
					14.93

obs	POP Change	EMP Change	per capital income	UNEMP	
1	Broward	17,856	12,087	\$ 34,163	3.69
2	Lee	28,189	15,650	\$ 33,475	2.92
3	Clay	6,162	2,838	\$ 28,134	3.2
4	Duval	20,676	14,210	\$ 32,360	4.18
5	Nassau	743	593	\$ 33,664	3.38
6	St Johns	7,942	3,756	\$ 37,670	2.95
7	Dade	42,257	16,847	\$ 29,384	4.32
8	Collier	11,602	6,571	\$ 42,854	3.14
9	Lake	11,139	3,569	\$ 26,930	3.56
10	Orange	29,500	34,123	\$ 29,824	3.59
11	Osceola	9,340	5,551	\$ 20,554	3.58
12	Seminole	8,383	12,882	\$ 36,256	3.34
13	Manatee	9,122	3,958	\$ 32,780	3.38
14	Sarasota	9,560	4,723	\$ 42,910	3.03
15	Hernando	5,577	2,752	\$ 25,103	4.52
16	Hillsborough	23,111	19,031	\$ 31,824	3.53
17	Pasco	17,122	7,139	\$ 25,302	4.02
18	Pinellas	4,104	6,617	\$ 35,872	3.8
19	Palm Beach	23,630	26,755	\$ 43,949	4.04
20	Escambia	(3,603)	1,803	\$ 27,129	4.09
21	Santa Rosa	2,722	2,237	\$ 25,971	3.57
22	Charlotte	(2,955)	1,230	\$ 25,550	3.82
23	Leon	7,215	1,957	\$ 30,376	3.24
24	Gadsden	856	414	\$ 22,072	4.16
25	Martin	3,422	4,390	\$ 44,140	3.74
26	S1. Lucie	13,823	3,707	\$ 23,525	4.6
27	Polk	13,451	11,202	\$ 26,928	3.96
28	Flagler	8,934	2,029	\$ 24,967	3.51
29	Volusia	10,388	7,629	\$ 26,308	3.59
30	Okaloosa	3,161	2,420	\$ 34,072	2.96
31	Alachua	4,590	(130)	\$ 28,372	2.96
32	Brevard	10,548	8,149	\$ 30,359	3.61
33	Marion	11,609	6,223	\$ 24,781	3.61
34	Bay	3,284	2,189	\$ 28,648	3.71

obs	175	I95	I10	I4	TURN	US981941
1	0	0	1	0	0	0
2	1	0	0	0	0	1
3	0	0	0	0	0	0
4	0	0	1	0	0	0
5	0	1	0	0	0	0
6	0	0	1	0	0	0
7	0	1	0	0	0	0
8	1	0	0	0	0	1
9	0	0	0	0	1	0
10	0	0	0	1	0	0
11	0	0	0	0	1	0
12	0	0	0	0	0	0
13	1	0	0	0	0	1
14	1	0	0	0	0	1
15	0	0	0	0	0	1
16	1	0	0	0	0	0
17	1	0	0	1	0	1
18	0	0	0	0	0	1
19	0	1	0	0	0	0
20	0	0	1	0	0	1
21	0	0	1	0	0	1
22	1	0	0	0	0	1
23	0	0	1	0	0	0
24	0	0	1	0	0	0
25	0	1	0	0	1	0
26	0	1	0	0	1	0
27	0	0	0	1	0	0
28	0	1	0	0	0	0
29	0	1	0	1	0	0
30	0	0	1	0	0	1
31	1	0	0	0	0	0
32	0	1	0	0	0	0
33	1	0	0	0	0	0
34	0	0	0	0	0	1

Major Highways

Dependent Variable: LOG(HOTEL)

Method: Least Squares

Date: 02/19/07 Time: 11:01

Sample: 1 34

Included observations: 24

White Heteroskedasticity-Consistent Standard Errors & Covariance

	Coefficient	Std. Error	t-Statistic	Prob.
C	-7.231078	4.101045	-1.763228	0.0924
HTIP	-0.000361	0.000211	-1.713530	0.1013
LOG(POP*INC)	0.982178	0.216752	4.531355	0.0002

R-squared	0.402991	Mean dependent var	11.42186
Adjusted R-squared	0.346133	S.D. dependent var	1.415221
S.E. of regression	1.144377	Akaike info criterion	3.224067
Sum squared resid	27.50158	Schwarz criterion	3.371323
Log likelihood	-35.68880	Hannan-Quinn criter.	2.852910
F-statistic	0.004444		

Dependent Variable: IND

Method: Least Squares

Date: 02/19/07 Time: 11:02

Sample: 1 34

Included observations: 27

White Heteroskedasticity-Consistent Standard Errors & Covariance

	Coefficient	Std. Error	t-Statistic	Prob.
C	-716381.9	298351.1	-2.401137	0.0298
ITIP	-27.14145	19.38991	-1.399772	0.1819
LOG(POP)	-65844.79	69809.85	-0.943202	0.3605
LOG(EMP)	50976.89	58595.91	0.869973	0.3980
OPP_M	88135.45	39381.73	2.237978	0.0408
SCS_M	636002.1	199042.1	3.195314	0.0060
OT_M	47013.62	21167.96	2.220980	0.0422
JAX	188853.1	89320.30	2.114336	0.0516
ORL	294976.9	105594.5	2.793488	0.0136
TPA	-226549.8	125935.0	-1.798943	0.0922
I75	255643.9	118269.6	2.161535	0.0472
US981941	366129.0	123630.5	2.961478	0.0097

R-squared	0.709594	Mean dependent var	140975.2
Adjusted R-squared	0.496630	S.D. dependent var	192605.6
S.E. of regression	136650.9	Akaike info criterion	26.78935
Sum squared resid	2.80E+11	Schwarz criterion	27.36528
Log likelihood	-349.6562	Hannan-Quinn criter.	2.147927
F-statistic	0.016376		

Dependent Variable: LR

Method: Least Squares

Date: 02/19/07 Time: 11:02

Sample: 1 34

Included observations: 28

White Heteroskedasticity-Consistent Standard Errors & Covariance

	Coefficient	Std. Error	t-Statistic	Prob.
C	-6577900.	1294836.	-5.080103	0.0000
LRTIP	-16.98570	8.833740	-1.922821	0.0675
LOG(POP*INC)	319996.4	59211.37	5.404307	0.0000
UNEM	239006.3	123372.5	1.937274	0.0657
TALLY	381963.0	126567.7	3.017856	0.0063
DAYT	-436022.9	55373.20	-7.874258	0.0000
R-squared	0.729698	Mean dependent var		383707.8
Adjusted R-squared	0.668266	S.D. dependent var		426548.1
S.E. of regression	245676.4	Akaike info criterion		27.84883
Sum squared resid	1.33E+12	Schwarz criterion		28.13430
Log likelihood	-383.8836	Hannan-Quinn criter.		2.110462
F-statistic	1.18E-05			

Dependent Variable: OFF

Method: Least Squares

Date: 02/19/07 Time: 09:57

Sample: 1 34

Included observations: 28

White Heteroskedasticity-Consistent Standard Errors & Covariance

	Coefficient	Std. Error	t-Statistic	Prob.
C	-1743412.	2085205.	-0.836086	0.4135
OTIP	-50.34053	39.48577	-1.274903	0.2177
LOG(POP*INC)	-57006.85	194118.6	-0.293670	0.7722
LOG(EMP)	382859.6	254588.7	1.503836	0.1491
OPP_M	95668.69	35911.48	2.664015	0.0153
SCS_M	1305968.	301255.2	4.335088	0.0004
SB_M	-71425.51	93031.75	-0.767754	0.4521
OT_M	1468.629	39123.25	0.037539	0.9704
FTPIERCE	-537459.3	162373.4	-3.310021	0.0037

R-squared	0.764541	Mean dependent var	449530.5
Adjusted R-squared	0.665400	S.D. dependent var	544593.8
S.E. of regression	315018.1	Akaike info criterion	28.41374
Sum squared resid	1.89E+12	Schwarz criterion	28.84195
Log likelihood	-388.7924	Hannan-Quinn criter.	2.172974
F-statistic	0.000133		

Dependent Variable: RR

Method: Least Squares

Date: 02/19/07 Time: 11:02

Sample: 1 34

Included observations: 29

White Heteroskedasticity-Consistent Standard Errors & Covariance

	Coefficient	Std. Error	t-Statistic	Prob.
C	-7505967.	1785415.	-4.204045	0.0003
RRTIP	-20.52856	14.90344	-1.377438	0.1806
LOG(POP*INC)	340372.9	77687.94	4.381283	0.0002
UNEM	411969.1	147639.6	2.790370	0.0099

R-squared	0.593509	Mean dependent var	462347.7
Adjusted R-squared	0.544730	S.D. dependent var	499753.9
S.E. of regression	337202.4	Akaike info criterion	28.42220
Sum squared resid	2.84E+12	Schwarz criterion	28.61079
Log likelihood	-408.1218	Hannan-Quinn criter.	2.404464
F-statistic	4.21E-05		

Dependent Variable: WARE

Method: Least Squares

Date: 02/19/07 Time: 11:11

Sample: 1 34

Included observations: 27

White Heteroskedasticity-Consistent Standard Errors & Covariance

	Coefficient	Std. Error	t-Statistic	Prob.
C	-12799215	2642394.	-4.843795	0.0001
WTIP	-40.90360	22.68208	-1.803344	0.0850
LOG(POP*INC)	629244.5	133287.1	4.720970	0.0001
UNEM	412842.5	272810.4	1.513294	0.1444
DAYT	-870527.5	138598.3	-6.280938	0.0000

R-squared	0.608201	Mean dependent var	738284.1
Adjusted R-squared	0.536965	S.D. dependent var	902824.9
S.E. of regression	614342.5	Akaike info criterion	29.66007
Sum squared resid	8.30E+12	Schwarz criterion	29.90004
Log likelihood	-395.4109	Hannan-Quinn criter.	1.730108
F-statistic	0.000257		

00,"VACANT RESIDENTIAL	"	,0	
01,"SINGLE FAMILY	"	,0	
02,"MOBILE HOMES	"	,0	
03,"MULTI-FAMILY >10	"	,0	
04,"CONDOMINIA	"	,0	
05,"COOPERATIVES	"	,0	
06,"RETIREMENT HOMES	"	,0	
07,"BOARDING HOMES (INSTITUTIONAL)	"	,0	
08,"MULTI-FAMILY <10	"	,0	
09,"UNDEFINED RESERVED FOR DOR	"	,0	
10,"VACANT COMMERCIAL	"	,0	
11,"STORES, ONE STORY	"	,2	
12,"MIXED USE I.E. STORE AND OFFICE	"	,2	
13,"DEPARTMENT STORE	"	,2	
14,"SUPERMARKET	"	,1	
15,"REGIONAL SHOPPING CENTER	"	,2	
16,"COMMUNITY SHOPPING CENTER	"	,1	
17,"ONE STORY NON-PROFESSIONAL OFFICES	"	,4	
18,"MULTI-STORY NON-PROFESSIONAL OFFICES	"	,4	
19,"PROFESSIONAL SERVICES BUILDINGS	"	,4	
20,"AIRPORTS,MARINAS,BUS TERMINALS,PIERS	"	,8	
21,"RESTAURANTS,CAFETERIAS	"	,1	
22,"DRIVE-IN RESTAURANTS	"	,1	
23,"FINANCIAL INSTITUTIONS	"	,4	
24,"INSURANCE COMPANY OFFICES	"	,4	
25,"REPAIR SERVICE SHOPS	"	,1	
26,"SERVICE STATIONS	"	,1	
27,"AUTOMOTIVE REPAIR, SERVICE, AND SALES	"	,1	
28,"PARKING LOTS, MOBILE HOME SALES	"	,0	
29,"WHOLESALE, MANUFACTURING, AND PRODUCE OUTLETS	"	,1	
30,"FLORIST, GREENHOUSES	"	,1	
31,"DRIVE-IN THEATERS, OPEN STADIUMS	"	,1	
32,"ENCLOSED THEATERS AND AUDITORIUMS	"	,1	
33,"NIGHTCLUBS, BARS, AND COCKTAIL LOUNGES	"	,1	
34,"BOWLING ALLEYS, SKATING RINKS, ENCLOSED ARENAS	"	,1	
35,"TOURIST ATTRACTIONS	"	,2	
36,"CAMPS	"	,0	
37,"RACE, HORSE, AUTO, AND DOG TRACKS	"	,0	
38,"GOLF COURSES	"	,0	
39,"HOTELS, MOTELS	"	,3	
40,"VACANT INDUSTRIAL	"	,0	
41,"LIGHT MANUFACTURING	"	,5	
42,"HEAVY MANUFACTURING	"	,5	
43,"LUMBER YARDS, SAW MILLS, PLANING MILLS	"	,6	
44,"FRUIT, VEGETABLE, AND MEAT PACKING PLANTS	"	,6	
45,"CANNERIES, DISTILLERIES, AND WINERIES	"	,5	

46,"OTHER FOOD PROCESSING	"	,5	
47,"MINERAL PROCESSING	"	,5	
48,"WAREHOUSES AND DISTRIBUTION TERMINALS	"	,6	
49,"INDUSTRIAL STORAGE (FUEL,EQUIP,AND MATERIAL)	"	,6	
50,"IMPROVED AGRICULTURE	"	,0	
51,"CROPLAND SOIL CLASS 1	"	,0	
52,"CROPLAND SOIL CLASS 2	"	,0	
53,"CROPLAND SOIL CLASS 3	"	,0	
54,"TIMBERLAND INDEX => 90	"	,0	
55,"TIMBERLAND INDEX 80 TO 89	"	,0	
56,"TIMBERLAND INDEX 70 TO 79	"	,0	
57,"TIMBERLAND INDEX 60 TO 69	"	,0	
58,"TIMBERLAND INDEX 50 TO 59	"	,0	
59,"TIMBERLAND NOT CLASSIFIED BY SITE INDEX TO PINES	"	,0	
60,"GRAZING LAND SOIL CLASS 1	"	,0	
61,"GRAZING LAND SOIL CLASS 2	"	,0	
62,"GRAZING LAND SOIL CLASS 3	"	,0	
63,"GRAZING LAND SOIL CLASS 4	"	,0	
64,"GRAZING LAND SOIL CLASS 5	"	,0	
65,"GRAZING LAND SOIL CLASS 6	"	,0	
66,"ORCHARD GROVES, CITRUS	"	,0	
67,"POULTRY, BEES, TROPICAL FISH, ETC.	"	,0	
68,"DAIRIES, FEED LOTS	"	,0	
69,"ORNAMENTALS, MISCELLANEOUS AGRICULTURE	"	,0	
70,"VACANT INSTITUTIONAL	"	,0	
71,"CHURCHES	"	,8	
72,"PRIVATE SCHOOLS	"	,8	
73,"PRIVATE HOSPITALS	"	,7	
74,"HOMES FOR AGED	"	,8	
75,"ORPHANAGES	"	,8	
76,"MORTUARIES, CEMETERIES	"	,5	
77,"CLUBS,LODGES, AND UNION HALLS	"	,8	
78,"CONVALESCENT & REST HOMES	"	,8	
79,"CULTURAL ORGANIZATIONS	"	,8	
80,"UNDEFINED	"	,0	
81,"MILITARY	"	,0	
82,"FOREST, PARK, AND RECREATIONAL AREAS	"	,0	
83,"PUBLIC SCHOOLS	"	,8	
84,"COLLEGES	"	,8	
85,"PUBLIC HOSPITALS	"	,7	
86,"OTHER COUNTIES	"	,8	
87,"OTHER STATE	"	,8	
88,"OTHER FEDERAL	"	,8	
89,"OTHER MUNICIPAL	"	,8	
90,"GOV OWNED LEASED BY NON-GOV LESSEE	"	,8	
91,"UTILITIES	"	,5	

92,"MINING, PETROLEUM, AND GAS LANDS	"	5
93,"SUBSURFACE RIGHTS	"	0
94,"RIGHT-OF-WAY STREETS, ROADS, AND CANNALS	"	0
95,"RIVERS, LAKES, AND SUBMERGED LANDS	"	0
96,"SEWAGE DISPOSAL, BORROW PITS, AND WETLANDS	"	0
97,"OUTDOOR RECREATIONAL	"	0
98,"CENTRALLY ASSESSED	"	0
99,"ACREAGE NOT ZONED AGRICULTURAL	"	0

1. Retail-Local/Community 14, 16, 21, 22, 25, 26, 27, 29, 30, 31, 32, 33, 34
2. Retail-Regional 11, 12, 13, 15, 35
3. Hotel 39
4. Office 17, 18, 19, 23, 24
5. Industrial 41, 42, 45,46, 47, 76, 91, 92
6. Warehouse 43, 44, 48, 49,
7. Medical/Hospital (pub & priv) 73, 85
8. Inst/Government 20, 71, 72, 74, 75, 77, 78, 79, 83, 84, 86, 87, 88, 89, 90,