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February 6, 2013

Dr. John Antonucci
Superintendent of Schools
Westwood Public Schools
220 Nahatan Street
Westwood MA 02090

Reference: Review of Proposed University Station Development

Dear Dr. Antonucci,

Thank you for the opportunity to assist you with reviewing the proposed University Station development and its potential impact on the Westwood Public Schools. Enclosed please find our report, including estimates of University Station's school-age population.

Should you have any questions, please don't hesitate to contact me at (617) 455-8641 or by email at jbarrett@cogincorp.com.

Sincerely,

COMMUNITY OPPORTUNITIES GROUP, INC.

Judi Barrett
Planning Director

Enc.

cc: Merrick Turner, BETA Group, Inc.
Jeffrey Donohoe
Nora Loughnane, Westwood Town Planner

Background

University Station is a proposed mixed-use development for a 135-acre site southwest of the University Avenue train station. The property is part of the former University Avenue Industrial Park. According to information we received from the Town, the project will be constructed in two or more phases. Table 1 summarizes the mix of uses and phasing plan that we were asked to review.

Table 1. Proposed University Station Development

		Phase 1	Phase 2+
Nonresidential Use	Total Sq. Ft.		
Office	350,000		350,000
Retail/Restaurant	750,000	680,000	70,000
Hotel (160 rooms)	115,000		115,000
Residential Use	Total Units		
Apartments & Condominiums	650	350	300
Assisted Living/Memory Care*	100		100

Sources: Connery Associates (October 2012), Nora Loughnane, Westwood Town Planner (February 5, 2013). *While the Town may classify and tax an assisted living facility as a nonresidential use, we classify it as a residential use because the residents will count as part of Westwood's total population. The Census Bureau also includes assisted living in the definition of "housing unit" for purposes of the decennial census.

The developer, an entity composed of National Development, New England Development, and Eastern Real Estate LLC, recently announced that Hanover Development had joined the project team to develop 350 apartments during Phase 1. One of the challenges associated with this study is that Westwood has more specific information about Hanover Development's 350-unit project than the other housing included in Table 1. As a result, forecasting the size and composition of University Station's future households requires assumptions about unit sizes (both in total floor area and number of bedrooms), pricing, amenities, and so on.¹ For the study to provide useful information, the assumptions have to be plausible.

Approach and Methodology

We have been asked to estimate University Station's school-age population, which we defined as children 5 to 18 years (inclusive).² Toward that end, we focused on analyzing two sources of data: a sample of rental housing developments in Massachusetts towns that are somewhat like Westwood,³ and actual responses to the American Community Survey (ACS), a new population survey conducted annually by the U.S. Bureau of the Census. An anonymous sample of these

¹ Note: We do not know if the Town and the developers have already addressed some of these issues during development agreement negotiations.

² We realize that school districts also offer pre-K programs, but the pre-K statistics we received are too inconsistent to be used in this study.

³ Based on the list of school districts we discussed when I met with you and Heath Petracca in December 2012.

responses can be obtained from a series known as Public User Microdata Samples (PUMS). The PUMS files are not available for individual cities or towns. Instead, they typically cover contiguous towns with a combined population of about 100,000. (Each group of communities is called a Public User Microdata Area, or PUMA.) There are many advantages to using PUMS data for a study like this. Notably, PUMS files shed light on population and household characteristics in the geographic areas that will supply many of the tenants for a new housing development. Furthermore, the PUMS data can be cross-tabulated, which makes it possible to answer questions such as, “how many children live in very high-end two-bedroom apartments?” or “how many children are in over-55 households living in owner-occupied housing units?”

In addition to surveying existing housing in other towns and analyzing PUMS data, we conducted a literature search and we reviewed school-age population data from other fiscal impact studies we prepared in the past few years. A brief “look back” made sense, first because the post-2006 housing market has affected renter household demographics, and second, comparing current and recent-past data for the same housing development should remind all of us that the number of children *does* change from year to year.

Demographic Trends in Multifamily Housing

Although renter households remain small compared with homeowner households, the number of school-age children in apartment developments has increased just about everywhere. Renter households that “moved up” to ownership units in the past have found it harder to qualify for mortgages, especially since 2009-2010, when the Federal Housing Administration (FHA) significantly tightened mortgage lending standards. Though mortgage interest rates have dropped to an all-time low, first-time homebuyers often lack the credit required to obtain a loan at the low rates we hear about in the news. Accordingly, first-time homebuyers represent a smaller share of housing sales today than under the pre-housing crisis conditions that prevailed before 2007. Among the consequences of this trend: families that once transitioned from renters to homeowners before their toddlers reached school age are staying in place longer (or moving to better rental housing instead of a for-sale unit). This partially explains the growth we have seen in apartment-driven school enrollments.

Newton officials have observed similar conditions in two well-known rental developments. In a report published by the Newton Public Schools two years ago, Superintendent David Fleischman had this to say about AvalonBay’s apartments:

Both Avalon residential communities have increased in student population this year. Avalon at Newton Highlands, a 294-unit apartment complex opened in 2003, is fully rented with a population of 74 students enrolled in the Newton Public Schools this year versus 64 students last school year... Avalon at Chestnut Hill, a 204-unit apartment complex opened in 2006, is 100% leased with 66 students from the development enrolled in the Newton Public Schools versus 49 students one year ago.⁴

⁴ David Fleishman and Sandra Guryan, “Enrollment Analysis Report: 2010-2011 to 2015-2016, Newton Public Schools” (November 2010), ii.

The numbers are up in Northborough and Needham, too. The 382-unit Avalon at Northborough complex has eighty-eight students this year – thirteen more than a year ago. At Charles River Landing in Needham, the current PK-12 enrollment count, twenty-two, exceeds last year’s count by six students.⁵ Federal census data also indicate growth in renter household sizes and presence of dependent children. In 2000, the average number of school-age children in a two-bedroom multifamily rental unit in the Boston metro area was 0.311; as of 2010, the number had increased to 0.344.⁶ Though a relatively small change, it adds up in a large apartment complex dominated by two-bedroom units.

What used to be “typical” for multifamily housing – up to a 10 percent increase or decrease in school-age children from year to year – has changed. Since the earlier Westwood Station studies reflect pre-2007 conditions, they are not as helpful as one would like as a source for reliable school population forecasts today. Now, we often see increases of 15 percent or more, and smaller decreases when they occur. Of course, this trend will eventually reverse with continued recovery in the housing market; in some cases, the numbers have already dropped. For example, Newton’s transit-oriented development, the 180-unit Arborpoint at Woodland Station, housed 40 students during the 2010-2011 school year compared with 43 the previous year. Still, it is unclear whether conditions had actually changed when measured by average number of students per unit. When the 2010-2011 enrollment count occurred on October 1, 2010, Arborpoint was 97 percent occupied, whereas the two AvalonBay developments had no vacant units.⁷

“DRIVERS” OF MULTIFAMILY IMPACT ON SCHOOLS

In our experience, several features determine the likelihood that multifamily developments will attract families with school-age children. We summarize them below and, where applicable, we comment on their relevance to Westwood.

- **Units large enough for family households.** In most cases, projects with three-bedroom units generate more school-age children per unit than developments with only one- and two-bedroom units. Exceptions occur in affluent, urban communities like Brookline and Newton, where families with school-age children can be found in remarkably small apartments. It is rare in the suburbs, however. As tables presented later in this report will demonstrate, studio and one-bedroom apartments have a *de minimis* impact on school enrollments.
- **Reputation of the community’s public schools.** In most cases, multifamily developments in affluent suburbs with prestigious schools have more school-age children than similar developments in towns with average or less competitive schools. The single-family homes in affluent suburbs tend to attract larger families, too. There are inextricable ties between population wealth, great schools, and the characteristics of family households, as can be seen

⁵ Kathryn Joubert, Town Planner, Town of Northborough, to Judi Barrett, Community Opportunities Group, Inc. (November 26, 2012), and Anne Gulati, Director of Financial Operations, Needham Public Schools, to Heath Petracca, Director of Business and Finance, Westwood Public Schools (February 1, 2013).

⁶ U.S. Department of Commerce, Bureau of the Census, Census 2000, Summary File 3, and 2010 ACS Five-Year Estimates.

⁷ Fleishman, “Enrollment Analysis Report,” iii.

in Westwood, where the average number of school-age children per household (0.65) is much higher than that of the state as a whole (0.38).

- **Scale, density and location.** Large, high-density multi-family developments seem to be less attractive to families with children than low-rise, moderately dense or low-density developments with fewer units per building. Developments with landscaped yards, open space, sidewalks, and trails typically house more children. In addition, developments near schools or established residential areas – developments that connect logically to adjoining neighborhoods and the larger community – usually have more children than developments in isolated settings or locations near offensive land uses. In a recent study of mixed-use developments in Fairfax County, VA, school authorities found that in three out of five projects, the actual number of resident students exceeded the original estimate. Even with accurate enrollment counts, however, the average per unit was relatively small: 0.12 to 0.22 school-age children per unit.⁸
- **Rental v. ownership.** Owner-occupied multifamily units tend to generate fewer school students than renter-occupied units. According to our research, large apartment buildings like those proposed at University Station generate 0.326 children per two-bedroom unit, on average, but only 0.144 school-age children per two-bedroom owner-occupied unit. Note, however, that “owner-occupied multifamily” is a broad category that includes multifamily “garden-style” condominiums and townhouses. They are not the same. Excluding units with floor plans designed to attract seniors – so-called “age-targeted housing” – owner-occupied townhouses tend to house more children than owner-occupied garden-style units.
- **Housing choices.** In communities with large inventories of two-, three- or four-unit homes in traditional neighborhoods, new multi-family developments tend to attract fewer families with school-age children. If given meaningful choices, families will seek housing in lower-density areas. This applies not only in the cities, where traditional neighborhoods with mixed residential uses lie next to city centers, but also in towns with intact worker housing from the industrial era – including towns that are otherwise quite different, such as Plymouth and Andover. Though ten years old, a study published in 2002 by the National Multi Housing Council (NMHC) reports that in new “garden-style” units (four or fewer stories), the average number of children per unit was 0.30 and in high-rise, dense developments, the average fell to 0.19 children per unit.⁹ Today’s numbers are somewhat different, but the distinctions between low-rise, mid-rise, and high-rise housing remain true.
- **Units for low- and moderate-income households.** Multifamily housing developed primarily as affordable housing generates more children than a development with only 20 or 25 percent low- and moderate-income units (the minimum required for a comprehensive permit).

⁸ R. Goff, Economic Development Director, to W. Shields, City Manager, “Background Regarding Fiscal Impact Analysis of Five Mixed Use Development Projects in the City of Falls Church” and “Mixed Use Fiscal Impact Comparisons (November 10, 2009).

⁹ NMHC, *Research Notes* (July 2002), 2.

Sources of Data

CASE STUDIES

We received K-12 enrollments for the current academic year for rental developments in Needham, Bedford, Hingham, Acton, Westborough, Bedford, and Northborough. After conducting a brief field visit at each site, we eliminated Acton and Westborough from further consideration. Table 2 summarizes the school population data we received from school departments in the communities we retained in our study. The rationale for removing Acton and Westborough from our analysis appears later in this report.

Table 2. Multifamily School Enrollment Data: 2012-2013

Grades	CRL/Needham	Avalon Hingham	Avalon Bedford	Avalon Northborough
K	1	1	4	5
1	3	6	2	9
2	1	4	4	7
3	2	4	0	7
4	2	2	2	8
5	0	1	5	13
6	4	5	1	5
7	0	4	1	9
8	4	3	1	4
9	2	2	3	8
10	0	2	1	5
11	1	5	1	4
12	0	3	2	4
Total	20	42	27	88
Units	350	235	139	382
Vacancy (1%)	347	233	138	378
Ratio	0.06	0.18	0.20	0.23

Sources: Needham, Hingham, and Bedford Public Schools, and Northborough-Southborough Public Schools.

These developments have some noteworthy characteristics:

- All of the projects were built within the past fifteen years.
- Affordable units comprise 25 percent of the apartments in each development.
- Three of the four projects have only one- and two-bedroom units.
- The development in Hingham has on-site access to public transportation (MBTA ferry service at Hingham Shipyard).
- The development in Northborough is co-located with Northborough Crossing, the large retail development that boasts Wegman's first supermarket in Massachusetts.

- Architecturally, most of the projects differ from University Station. The buildings are smaller and separated by landscaping and parking, but Hanover Development's proposal in Westwood calls for two large buildings connected by a parking structure. The proposal in Westwood is similar to Charles River Landing in Needham.

In Bedford and Northborough, elementary school children (K-5) account for 58-60 percent of the total; middle school students, 18-20 percent; and high school students, 20-24 percent. In Hingham, however, middle school and high school students make up 58 percent of the total (29 percent each), and in Needham, the same grade groupings account for 40 percent and 15 percent, respectively. The difference may stem, at least in part, from the locations of these projects: the Hingham Shipyard, and a redeveloping office/industrial center in Needham.

Since the communities in our sample have prestigious schools, any of the rental developments we examined should be useful for predicting the number of children at University Station. This is not really the case, though. For example:

- We eliminated the apartment developments in Acton and Westborough after reconsidering their locations. Though set near an office park in northwest Acton, AvalonBay's development is substantially separate from nearby nonresidential uses. It is located near an early planned unit development, the Village at Nagog Park, so there is quite a bit of housing in the same general area. The development in Westborough is on a main road and not well connected to anything around it.
- Even though Northborough has great schools and Northborough Crossing has a retail mix close to that proposed for University Station, it would be wrong to base estimates for Westwood solely on Avalon Northborough's school-age population. This is because Avalon Northborough has a modest number of three-bedroom units (about 5 percent of the total).
- The project in Needham – though seemingly a model for the project in Westwood – is not as useful a comparison as one might imagine despite the fact that the developer is the same entity (Hanover). AvalonBay, Trammel Crow, Fairfield, and others have built strikingly similar projects in different places and attracted different types of households. Westwood is evaluating plans for a transit-adjacent mixed-use development with retail, restaurants, office space, and housing. By contrast, Needham's plan for the vicinity of Charles River Landing calls for office space and research facilities, not a retail activity center. In fact, after "upzoning" the New England Business Center area a year ago, Needham recently received and approved proposals for two large office developments and granted Tax Increment Financing (TIF) agreements to facilitate the projects. Charles River Landing is neither transit-adjacent nor transit-oriented, and the zoning district does not call for intensive retail development. Though Needham has outstanding schools, the town itself is quite different from Westwood. In 2006, we peer reviewed Charles River Landing for the Needham Board of Appeals and estimated the project's school-age population at 22 to 24 children. Today, the project has 20.

We excluded other well-known apartment developments from our survey as well. Despite similar household wealth and school district rankings in communities like Lexington and Newton, their new multi-family rental developments tend to have large percentages of three-bedroom units.

PUBLIC USER MICRODATA SAMPLES

We took our analysis to another level and drew statistics from the American Community Survey PUMS files for 2006-2010. For this task, we sought assistance from Ezra Glenn, AICP, at MIT. The PUMS data support more refined assumptions, e.g., whether the number of children per unit varies by number of bedrooms, tenure, monthly rent, and size of building. The average number of students from ACS data for four PUMAs (one including Westwood) are on a separate page at the end of this letter. The PUMAs differ somewhat because they include a few towns that are not like Westwood. However, the school-age population statistics for variables such as unit size (bedrooms), rent, and so forth, are fairly consistent.

Conclusions

The developer’s estimate of 55 school-age children for University Station as a whole, while optimistic, is not out of line with estimates supported by our case studies and ACS statistics.

PHASE ONE APARTMENTS

Using the data points from four Massachusetts case studies (all rental projects), the estimated number of students in Hanover’s proposed 350-unit development varies considerably. After conducting site visits to all of the developments, consulting with school officials, and reviewing the master plans and zoning for each of these communities, we find that Avalon at Hingham Shipyard offers the best comparable overall.

Table 3. Phase 1 350 Apartments/Est. School-Age Children Based on Comparable Developments

Development	Relevance to Westwood	Average Students Per Unit	Result (x 350 Units)
Needham	Limited	0.06	21
Hingham	High	0.18	63
Bedford	Moderate	0.20	70
Northborough	Moderate	0.24	81

Source: Needham, Hingham, Bedford, and Northborough Schools, and Community Opportunities Group, Inc.

According to the PUMS data for Westwood’s area, Hanover Development’s project would house about forty-nine school-age children. For Phase 1, we recommend that Westwood plan on forty-nine to a maximum of sixty-three students. When the housing market improves and more renters transition to homeownership, the number of students in Hanover’s project will probably decline.

Table 4. Phase 1 350 Apartments/Est. School-Age Children Based on PUMS Data

Unit Size	Number of Units	PUMS Multiplier	Result
1 BR	210	0.018	4
2 BR	<u>140</u>	0.326	<u>46</u>
Total	350		49

Source: 2010 ACS Five-Year Estimates, Ezra Glenn, AICP, and Community Opportunities Group, Inc.

PHASE TWO APARTMENTS AND CONDOMINIUMS

We have few details about the housing units that could be permitted during the second (and possibly later) phases of the project. As far as we know, they have been presented to the Town in very broad terms: as many as 200 condominiums and another 100 apartments. Assuming the condominiums include 100 one-bedroom units and 100 two-bedroom units, designed as multi-family flats in three- or four-story buildings – not townhouses – the number of school-age children should be approximately twenty, as shown in Table 5. Absent more specifics about the apartments, we have assumed a division of one- and two-bedroom units comparable to Hanover’s plans for Phase 1 (60 percent/40 percent respectively). Together, the condominiums and Phase 2 apartments would house approximately thirty-four school-age children.

Table 5. Phase 2 300 Units/Est. School-Age Children Based on PUMS Data

Unit Size	Number of Units	PUMS Multiplier	Result
Condominiums			
1 BR	100	0.055	6
2 BR	100	0.144	14
		Subtotal	20
Apartments			
1 BR	60	0.018	1
2 BR	40	0.326	13
		Subtotal	14
Total			34

Source: 2010 ACS Five-Year Estimates, Ezra Glenn, AICP, and Community Opportunities Group, Inc.

Using the PUMS analysis, which allows one to match school-age children multipliers with number of bedrooms per unit, we estimate that about eighty-three school-age children will live at University Station at buildout. This should be treated as a high-side estimate because the apartments will always have some vacancies.

SPECIAL EDUCATION AND LANGUAGE SUPPORT SERVICES

School authorities provided enrollment data for the suburban apartment developments identified in our report. As part of our inquiry, we requested information about demands placed on special education or English Language Learner services by students in multi-family housing. For confidentiality reasons, most school officials declined to comment. Westwood administrators will need to contact their colleagues in other towns in order to obtain this information.

Next Steps

Whether town and school officials accept our estimates or those provided by the developer, the number of students must be translated into a service cost estimate. In order to prepare a fiscal impact analysis of University Station, the project’s total estimated revenues and total estimated service costs have to be quantified. We see three options for doing so:

- **Actual NSS/Average Cost Multiplier.** The simplest method involves using Actual Net School Spending (Actual NSS) as an average cost multiplier. The developer's consultant used this approach. Average cost multipliers often appear in fiscal impact studies because they are easy to work with and the data are readily available. This is especially true for projects with as many unknowns as those associated with University Station. One problem with average cost multipliers is that they distort near-term growth in service costs. A second problem is that they lack "place sensitivity," i.e., they ignore unique cost conditions that might occur with a given location. A third problem is that in Massachusetts, the NSS formula does not recognize all special education costs, pre-kindergarten service costs, and various academic support services such as English Language Learner (ELL) instruction. The formula also ignores school transportation costs and school construction debt service. Still, some of the professional literature argues that average cost multipliers do provide a reliable picture of *long-term* service costs.
- **Grade-Adjusted Average Cost Multipliers.** Another option involves dividing the total estimate of students into grade groupings (e.g., elementary, middle, and high school), and applying average cost multipliers that reflect the cost differential between elementary and secondary education. Adjustment factors for special education and language services could be added to either of these approaches.
- **Marginal Cost Analysis.** A more complicated (but we think more useful) method involves estimating a range of costs based on credible "what-if" scenarios, e.g., if well over half the children are middle school and high school students (as in Hingham), how would Westwood accommodate them? How many classroom teachers, desks, books, school buses, and so forth would the school department have to add? Is there enough classroom space? Enough room in core facilities for the anticipated increase in enrollments?

As we understand it, the school administration wants to prepare its own cost estimate, taking an approach like the marginal cost analysis described above. Our firm would be pleased to assist with that effort on an as-needed basis.

SUMMARY STATISTICS FROM PUMS DATA
 AMERICAN COMMUNITY SURVEY 2006-2010 FIVE-YEAR DATA

**School-Age Children Per Unit by Units in Structure by Number of Bedrooms;
 Renter-Occupied Housing**

Bedrooms		1 unit	2-4 units	5-9 units	10+ units	Combined
0	BR	0.000	0.000	0.146	0.018	0.038
1	BR	0.077	0.084	0.012	0.018	0.035
2	BR	0.351	0.176	0.344	0.326	0.285
3	BR	0.650	0.758	0.449	0.886	0.709
4	BR	0.989	0.667	N/A	3.000	1.032
5+	BR	1.219	0.708	0.000	0.167	0.841
Combined		0.547	0.308	0.168	0.189	0.281

**School-Age Children Per Unit by Units in Structure by Number of Bedrooms;
 Owner-Occupied Housing**

Bedrooms		1 unit	2-4 units	5-9 units	10+ units	Combined
0	BR	0.000	0.000	N/A	0.395	0.326
1	BR	0.043	0.088	0.000	0.055	0.052
2	BR	0.137	0.119	0.121	0.144	0.135
3	BR	0.496	0.508	0.279	0.000	0.494
4	BR	0.810	0.404	N/A	N/A	0.806
5+	BR	1.213	0.686	0.000	0.000	1.181
Combined		0.638	0.303	0.121	0.107	0.599

School-Age Children Per Rental Unit by Monthly Rent

PUMA*	Cash Rent						Combined
	\$500	\$500- \$999	\$1000- \$1499	\$1500- \$1999	\$2000- \$2499	\$2500+	
2400	0.052	0.162	0.327	0.540	0.200	0.000	0.216
2500	0.282	0.184	0.275	0.347	0.191	0.322	0.254
2600	0.189	0.257	0.230	0.614	0.801	0.766	0.387
3500*	0.477	0.037	0.309	0.407	0.646	0.980	0.303
Combined	0.254	0.157	0.286	0.467	0.584	0.683	0.281

*PUMA 3500 includes Medfield, Norfolk, Sharon, Walpole, and WESTWOOD

PUMA 2400 includes Ashland, Holliston, Hopkinton, Medway, Millis, Milford, Southborough, Upton

PUMA 2500 includes Framingham, Natick, and Sherborn

PUMA 2600 includes Dedham, Dover, Lincoln, Needham, Wellesley, and Weston

SUMMARY STATISTICS FROM LITERATURE REVIEW

Mixed-Use Developments Case Study in Falls Church, VA

Project Name	Unit Type		Sq. Ft. Commercial Floor Space	School-Age Population			
	Own	Rent		Original Estimate (Per Unit)	Actual Enrollment (2009) Per Unit	Original FIA	Actual Net Revenue
Byron	90		22,527	0.15	0.12	\$306,436	\$509,904
Pearson Square		230	102,000	0.15	0.22	\$684,196	\$589,781
Spectrum	189		64,000	0.15	0.22	\$721,307	\$901,173

R. Goff, Falls Church Economic Development Director, "Background Regarding Fiscal Impact Analysis of Five Mixed Use Development Projects in the City of Falls Church" (November 10, 2009).

Study of Mixed Residential Uses in Urbana and Normal, Illinois

	Mean No. K-12 Students Per Unit				Adults Per Unit	Total	
	Pre-K	K-5	6-8	9-12		K-12	Total
Single-Family Detached							
2 Bedroom	0.113	0.136	0.048	0.020	1.700	0.204	2.017
3 Bedroom	0.292	0.369	0.173	0.184	1.881	0.726	2.899
4 Bedroom	0.418	0.530	0.298	0.360	2.158	1.188	3.764
5 Bedroom	0.283	0.345	0.248	0.300	2.594	0.893	3.770
Single-Family Attached							
1 Bedroom	0.000	0.000	0.000	0.000	1.068	0.000	1.068
2 Bedroom	0.064	0.088	0.048	0.038	1.776	0.174	2.014
3 Bedroom	0.212	0.234	0.058	0.059	1.805	0.351	2.368
4 Bedroom	0.323	0.322	0.154	0.173	2.243	0.649	3.215
Multi-Family Units							
0 (Studio)	0.000	0.000	0.000	0.000	1.360	0.000	1.360
1 Bedroom	0.000	0.002	0.001	0.001	1.749	0.004	1.753
2 Bedroom	0.047	0.086	0.042	0.046	1.614	0.174	1.835
3 Bedroom	0.052	0.234	0.123	0.118	2.499	0.475	3.026

Fassero and Knapp, "Fiscal Impacts of Development: Does Residential Development Pay for Itself? Case Studies of Urbana and Normal, Illinois" (August 2002).