

# 2.3

## Community Impact Assessment

### Introduction

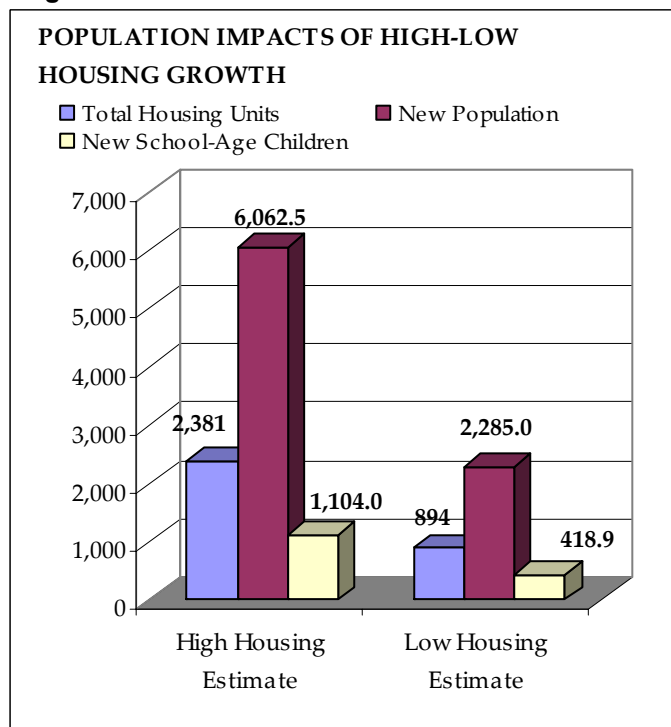
The *Market Assessment* estimates that in the next 20 years, Devens could support 894 to 2,381 new dwelling units. The low-end estimate represents a scenario in which Devens eventually reverts to the three host communities while the higher estimate imagines Devens as a separate town. The impacts of either scenario will be determined by several factors, including:

- Housing type, price and tenure
- Rate and locations of new development
- Long-range demographic trends
- The receiving community's form of government and fiscal condition

This task examines development impacts that can be considered with data supplied by the host communities and MassDevelopment. Where local information was unavailable, data from the Department of Revenue Municipal Data Bank was utilized as appropriate.

Population estimates are based on household and school-age children multipliers for various types of housing units at price points generally comparable to those described in the housing market assessment. The multipliers were derived by cross-tabulating Census 2000 super-Public User Microdata Area (Super-PUMA) tables for Middlesex County. For

Figure 2.18:



comparison purposes, a cross-tabulation of a selection of detail tables from Census 2000, Summary File 1, for the host communities was conducted. The local multipliers are fairly similar to those for region as a whole, except that Harvard's average household size and average number of school-age children per family are larger. Harvard's household population profile is much like that of other affluent communities with a housing inventory comprised almost entirely of detached single-family homes. Since new housing development at Devens is anticipated to include a mix of types and size, the Super-PUMA multipliers to forecast population growth was utilized even though most of the housing units may be located within Harvard's corporate limits.

**Table 2-26: Comparison of Super-PUMA and Local Households**

	Average Household Size	Average School Children/ Household
Applied Multipliers from Super-PUMA Sample Data		
<i>Devens Housing-High Housing Estimate</i>	2.55	0.46
<i>Devens Housing-Low Housing Estimate</i>	2.56	0.47
Census 2000 Summary File 1 Detail Tables		
<i>Ayer</i>	2.29	0.36
<i>Harvard</i>	2.86	0.68
<i>Shirley</i>	2.55	0.46
<i>Middlesex County</i>	2.52	0.40
<i>Worcester County</i>	2.56	0.47

Sources: Census 2000 and Community Opportunities Group, Inc.

## Impact on Municipal and School Services

The impacts of new residential development largely depend on location, the size and composition of the households served, and the rate of household population growth. Since Devens has established infrastructure – roadways, water and sewer – it can absorb 894 or 2,831 new housing units more readily than a small town without adequate facilities. However, roads and utilities alone do not suffice as adequate *community* facilities. When the Devens Reuse Plan was prepared in the early 1990s, the state and the host communities anticipated that Devens would serve as a regional economic engine, providing construction-ready sites for new companies or those in an expansion mode. Economic development concerns shaped the scope and direction of the Devens Reuse Plan, and housing was, at best, an ancillary feature. While the plan called for capital improvements such as road reconstruction and a state-of-the-art wastewater treatment facility, these investments were intended to support employment growth, not moderate- to large-scale housing development. As a result, the Devens Reuse Plan conspicuously omits the kinds of public facilities that typically serve residents, such as a town hall, a senior center, schools or a library. Whether Devens becomes a separate town or reverts to the host communities, basic

facilities for residents will have to be provided in order to serve the household population associated with 894-2,831 housing units.

## Population Impact

In 20 years, a build-out of 894 housing units at Devens would add a household population of 2,285 people to the populations of the host communities as estimated in Table 2-27. In contrast, a build-out of 2,831 units would result in a new population of 6,063 –more than twice Shirley’s total household population as of Census 2000. Table 2-27 summarizes these estimates on the basis of anticipated householder age groups.

**Table 2-27: High-Low Household Population Estimates**

	Age of Householder						Total
	Under 35	35 to 44	45 to 54	55 to 64	65 to 74	75 and up	
High Estimate	347	494	624	527	235	154	2,381
Homeowners	85	340	486	373	144	91	1,519
Renters	263	154	138	155	92	63	865
<i>Household Population</i>	735.3	1,720.5	1,901.5	1,101.3	409.3	194.5	6,062.5
Low Estimate	130	187	237	198	86	56	894
Homeowners	33	129	187	140	55	36	580
Renters	98	58	49	56	31	20	312
<i>Household Population</i>	277.5	654.0	721.8	410.0	150.3	71.5	2,285.0

Source: Community Opportunities Group, Inc.

## Water and Solid Waste

The high-low population estimates in Table 2-28 translate into the following water demand and solid waste impacts, based on state planning standards for water consumption per person per day and pounds of solid waste per person per year.

**Table 2-28: Water and Solid Waste Impacts**

	New Population	Water Consumption Gallons Per Day (GPD)	Solid Waste Disposal Tons Per Year
High Population Estimate	6,062.5	454,685.9	3,110
Low Population Estimate	2,285.0	171,377.2	1,172

Source: DEP, Community Opportunities Group, Inc.

## Schools

If Devens accommodates 894 new homes in the next 20 years, the total number of school-age children will be approximately 419. Under the high-side forecast of 2,831 new homes, the estimated school-age population will consist of approximately 1,104 children (ages 5-17). Information from the Town of Shirley about the operating capacity of its existing schools has not been obtained to date, thus this analysis is unable to comment on whether the three towns combined have adequate school space to accommodate 419 students.

**Table 2-29: Operating Capacity of Existing Public Schools**

	10/1/2004 K-12 Enrollment	Number of Students Estimated Operating Capacity	Approximate Capacity for Growth
<b>Ayer</b>			
<i>Elementary School</i>	601	800	199
<i>Middle-High School</i>	767	900	133
<b>Harvard</b>			
<i>Elementary School</i>	556	575	19
<i>Bromfield School</i>	698	800	102
<b>Shirley</b>			
<i>Elementary Schools</i>			
<i>Middle School</i>		Information Not Received	

*Sources: Ayer Public Schools, Harvard Public Schools, Community Opportunities Group, Inc. Enrollment counts include School Choice students.*

The existing school buildings most likely have additional capacity beyond that reported in Table 2-29, first because the table omits Shirley's school profile and second, Harvard and Ayer currently serve School Choice students. However, even if there is adequate classroom and core facility space in the existing schools, the School Committees will need to decide whether it is educationally appropriate to transport young children at Devens to schools in the host communities. The Devens School on Barnum Road, which is operated by the Shirley School Department under a contract with MassDevelopment, serves kindergarten and first-grade students. The building is not large enough to support projected elementary school enrollments of 251 to 630 students (60% of total estimated K-12 enrollment under low-high housing scenarios), and today, educators and school administrators in many communities would question the appropriateness of designing an elementary school for more than 400 children.

As a result of this analysis, the high or low residential growth estimate will require at least one elementary school at Devens regardless of space that may be available in Harvard, Shirley or Ayer. Given prevailing construction costs for new elementary

schools in Eastern Massachusetts, the host communities should anticipate an investment of \$20-\$22 million for an elementary school, and \$32,000 to \$35,000 per student of planned operating capacity for alterations and expansion of existing middle and high school facilities.

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## Absorption Issues

Recent fiscal trends suggest that the host communities may not be in a position to absorb more than 20-25 new single-family dwellings per year *above their existing rates of growth* without an increase in local aid or other own-source or external revenue sources. For example, since FY 2000:

- The average single-family tax bill in Ayer has increased by 54%, which significantly exceeds the statewide average of 34% or the rates of tax bill growth in Harvard and Shirley.
- Total local aid to Harvard has declined by 17%.
- Chapter 70 aid as a percentage of Actual Net School Spending has declined in all three communities, yet the Foundation Budget that defines an “adequate education” has continued to grow.
- General fund expenditures have increased at an average rate of 3.2% per year in Ayer and Harvard, and 5.4% in Shirley.
- In contrast to local aid reductions, the tax levy has increased by about 5.2% per year in Ayer and Shirley, and 8.3% in Harvard.
- Debt service as a percentage of the general fund operating budget has hovered at 8-9% in Ayer and Shirley. Under conventional bond rating criteria, Ayer and Shirley are close to the debt service maximum.
- Fixed costs – namely the cost of employee health insurance and other benefits – has increased 59-68% in the three communities. For Shirley, the rate of growth in fixed costs and debt service significantly exceeds that of any other cost center in the general fund budget.