

Regulating Subdivisions in Massachusetts Practices and Outlooks

A Survey of Public Officials in Massachusetts

By

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With

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Abstract

This study gauges the influence of subdivision regulations on the design of residential developments in Massachusetts. Through a statewide survey of towns' and cities' public officials, the study assesses attitudes and perceptions and identifies the issues within subdivision regulations that regulatory agencies feel are affecting housing development. The Massachusetts' study partially replicates similar research done in 2002 at a national level (available at Lincoln Institute of Land Policy. Working Paper WP03EB1, 2003.) The study also compares data from 1976 to gain an understanding of changing practices over the last 25 years.

Findings:

- The subdivision approval process in Massachusetts has not been streamlined on the contrary, it has been lengthening in time. This is consistent with the 2002 national findings. However, in comparison to the national data, fewer agencies are involved, which suggests a less complex process in Massachusetts.
- Public officials in Massachusetts linked approval delays with the inability of developers to present adequate information. However, many also acknowledge that delays are also caused by the bureaucratic process related to multiple agency approvals and the public approval procedures.
- When various regulations are examined with respect to the median household income of the communities surveyed, results show that in higher income communities approval of development and rezoning takes longer than for those with lower median incomes.
- There was no statistically significant correlation between surveyed communities' median household income and many other subdivision regulations or requirements. For example, there was no significant correlation between the average time to obtain a variance or the minimum lot size required by a community for septic tank installation and community income level.
- According to public officials, developers in Massachusetts more often contest on-site improvements (streetscape, sanitary and storm sewers) than their national counterparts.
- More jurisdictions are adopting local ordinances which allow for more multi-family zones and house types, as well as reductions in minimum lot sizes and frontages.

- Whether taking the form of typical Planned Unit Developments, cluster developments, or the more contemporary Traditional Neighborhood Developments (TNDs) and Conservation Subdivisions, new types of communities are increasingly possible in Massachusetts' subdivision development. Conservation Subdivision ordinances exist in almost 50 percent of jurisdictions and a third allow Planned Unit Developments. However, only half of the jurisdictions that allow alternative developments have actually had one developed and constructed.
- Of the Massachusetts' jurisdictions surveyed, 6 percent have reduced their street width requirements, 24 percent have introduced more multifamily zones, and 15 percent are allowing more choice in housing types. In addition, 10 percent have changed their ordinances to increase senior living allowances. However 19 percent of the jurisdictions surveyed have increased their minimum lot sizes, and 16 percent have approved ordinances requiring larger lot frontages.
- One-third of Massachusetts' jurisdictions have enacted at least one growth control measure. Out of a variety of the control measures, the most widely used is phased development.
- In Massachusetts, the majority of jurisdictions surveyed allow septic systems. Approximately a third of those towns require lot sizes between a half and one acre, another third between one and two acres, while most of the remainder have no minimum requirements at all.

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Regulating Subdivisions in Massachusetts

Practices and Outlooks

A Survey of Public Officials in Massachusetts

Introduction

The physical form of the built environment is shaped by an assortment of standards and regulations. These provide an important, and inescapable, framework for the layout of streets and their widths, and for the placement and configuration of utilities and infrastructure. Public officials, private sector consultants and developers generally agree that some form of control is necessary to guide growth and to ensure adequate public services.

However contention also exists over the extent and effect of development related regulations, particularly in relation to their cost, consistency and relevance. These factors directly impact on housing affordability and the introduction of innovative design solutions. Since the early days of the 20th century, numerous federal commissions, state committees, academics, and private studies, have tried to gauge and measure the impact of various regulations on housing costs. Surprisingly, few studies have concentrated on design and form shaping regulations such as subdivision codes. Furthermore, few studies have compared such regulations across localities and regions.

The lack of studies related to subdivision regulations may have been best explained by the President's Committee on Urban Housing (the Kaiser Commission), which in 1968 acknowledged the difficulties involved in computing the cost and effect of such regulations. "Not the least of these difficulties," they wrote, "is the lack of a comprehensive, up to date survey on the provision of ordinances throughout the nation. The details of subdivision and zoning ordinances will have important consequences that require in-depth study before a firm conclusion can be reached."¹

Subdivision Regulatory Studies- Brief Overview

Most housing-development regulatory studies fall into two general categories:

- Overall assessment of capital and operating costs linked to a particular land-use
- Analysis of costs corresponding to prototypical development patterns.

The assessment of costs of municipal services associated with development began in earnest in 1955 with the publication of Wheaton and Schussheim's *The Cost of Municipal Services in Residential Areas*. That work, sponsored by the U.S. Housing and Home Finance Agency, was designed to examine the effect of developments' parameters such as: density, size and location, on the cost of municipal services. Costs were examined by hypothetically locating new developments of different patterns in different localities in Massachusetts and estimating various costs per dwelling unit.

The methodology used by this study, with its classification system of capital facilities and municipal services, provided a benchmark to be followed by most subsequent studies.

Two years later, in 1957, Isard and Coughlin published *Municipal Costs and*

Revenues Resulting from Growth. Based on work sponsored by the Federal Reserve Bank of Boston and the American Institute of Planners, the study provides capital and maintenance expenditures for roads, sewers, stormwater management, and schools for various development densities located next to hypothetical existing community.

The improvement costs, particularly those related to sewer systems, analyzed by these studies, provided an impetus for the building industry to join the research effort. In 1958, the Urban Land Institute (ULI) published the *Effects of Large Lot Size on Residential Development*. The study analyzed the effects of costs on variations of lot area, lot frontage and lot development in relation to infrastructure improvements. It identified the capital cost of these improvements as a linear function of lot width, with lot widths ranging from 60 feet 250 feet. It then suggested levels of reduced standards of improvements.

The ULI study raises two important questions in assessing the costs of development: Under what conditions are reduced standards of improvement reasonable while still maintaining a livable and adequate environment; and, how does one assess the full cost implications of particular standards, when in many areas of community building, trade-offs are available between initial outlay and continuing costs for operation, maintenance, refurbishing and replacement. It concludes that a desirable situation for decision making would consider life –cycle costs for traditional as well as for competing technologies so that the combination of initial capital investment and ongoing costs could be better evaluated.

Over the next decades, ULI continued to issue special reports dealing with various regulatory issues. Most notably in 1963 they published *Innovations vs. Traditions in Community Development* Technical Bulletin No. 47, which provided analysis of innovative and conventional forms of residential building types and land development patterns. It pointed out reasons for the need of regulation revisions and underlined the economies realized by the developer. In 1968, ULI published its *Do Single Family Homes Pay Their Way?: A Comparative Analysis of Costs and Revenues for Public Services*. The study utilized hypothetical subdivisions which were constructed in three comparative communities, and analyzed public improvement costs, development costs and policies to determine whether new subdivisions are a tax liability. Another important ULI publication was the 1974 (also 1990 and 2002) *Residential Streets* which assessed the cost of subdivision street design and construction and advocated reduced standards for local streets.

Similar studies were also completed by government agencies. In 1969, for example, a special Research Report for the National Commission on Urban Problems by Elsie Eaves titled: *How the Many Costs of Housing Fit Together*, recorded median housing cost experience for both single-family detached houses and multi-unit apartments. The analysis provided a framework that defined the cost in 1966 to buy, finance, build and operate housing. It then indicated the upward pressures from 1966 to 1969 on housing cost components.

In the 1970s we find a growing concern with direct costs related to specific regulations (such as building codes) and environmental impacts. Starting with the National Commission on Urban Problems (1968, often referred to as the Douglas Commission) undertook one of the most comprehensive building code studies in the United States. The commission concluded that unnecessary housing costs are inherent in

building codes that delay construction, prevent the use of modern materials, prevent large-scale construction, and are poorly controlled. In 1975, Field and Rivkin published the *Building Code Burden*. In it they examined the effects of various constraints on housing costs such as building supplier restrictions, building firms, and restrictive building codes.

Notable environmental assessment studies of the time include *Population, Resources, and the Environment* by the U.S. Commission on Population Growth and the American Futures (1972) and Stephen Seidel's *Housing Costs and Government Regulations: Confronting the Regulatory Maze* (1978).

Seidel's research is one of the most comprehensive studies of that time and one of the first to directly address seven types of regulations on housing including: environmental regulations, subdivision regulations, and growth controls.

The subdivision regulation section provides a comprehensive analysis of subdivision requirements and their effect on housing costs. It showed that by 1976, (the date of the study), subdivision regulations had become more complex, and in the eyes of developers, much more onerous. While initially, simple subdivision regulations were put into place to transform undeveloped land into parcels suitable for development, by the time of the survey in 1976, subdivision requirements had begun to include detailed stipulations such as on-site and off-site improvements developers had to provide. According to Seidel, these improvement standards required many developers to provide amenities that were often unnecessary and costly, and, in doing so reduced the supply of affordable housing in newly constructed subdivisions.

The impact of codes on the building industry generated much interest in the states and local communities. In the following decades we find a series community case-study reports on housing costs and regulatory barriers in places like New-York, California, Florida, and Massachusetts to name a few. A study by Frech and Lafferty (1984), for example, analyzed the effect of land preservation regulations by the California Coastal Commission on housing prices. Portland, Oregon's, urban growth boundary, has been the subject of much debate and analysis regarding its impacts on housing costs. Luger and Temkin's *Red Tape and Housing Costs* (2000) showcase communities in New Jersey and North Carolina, comparing land-use regulations, regulatory authorities, and local development processes to illustrate how variations in the interpretation and implementation of regulations can influence the bottom line.

Studies concerned with the cost of infrastructure improvements, design standards and development patterns go back to the early days of the 20th century and the establishment of the U.S. Bureau of Industrial Housing and Transportation by Congress in 1917. One of the first publications of the Bureau was the report *Houses, Site-planning, Utilities*, published in 1919. It included cost data on low-cost housing with an extensive comparison between various lot sizes and arrangements. Much of this report was based on earlier efforts by the Bureau's director Frederick Law Olmsted Jr.'s work for the National Conference on Housing – Housing Problems in America held in 1915. At the conference the reports: "Land subdivision from the Point of View of a Development Company," and "Land Subdivision and its Effect Upon Housing" were presented.

These type of typological, unit-cost analysis gained momentum in the late 1920s and 1930s with the publication of the *Regional Plan of New York and Its Environs* in

1929. Of particular interest was Volume 7's monograph by Thomas Adams, Edward M. Bassett, and Robert Written titled: "Problems of Planning in Unbuilt Areas: research into the economies of land subdivision." Such studies and discussion continued with Robert Written and Thomas Adams, 1931 publication of *Neighborhoods of Small Homes; Economic Density of Low-Cost Housing in America and England* and Thomas, Adams' *The Design of Residential Areas; Basic Considerations, Principles, and Methods*, in 1934.

The cost analyses provided by these publications demonstrated the cost saving advantages associated with a particular neighborhood pattern. Most notably was the endorsement of the self contained Neighborhood Unit Block, the opposition to grid street systems, and the support for densities of 5 to 7 units per acre as the most economical ratio. The support for these configurations continued with the establishment of the Federal Housing Administration and the Housing and Home Finance Agency and their related documents for subdivision design issued through the 1950s (for example see the 1952 *Suggested Land Subdivision Regulations* by the Housing and Home Finance Agency.)

Incorporating neighborhood typological studies with other variables such as environmental costs (pollution, energy use, visual effects, etc.), and personal costs (travel, recreation, crime, etc.), were the center of interest during the 1970s and 1980s. In 1974, the Real Estate Research Corporation, with the support of the federal government, conducted research and published *The Cost of Sprawl, Environment and Economic Costs of Alternative Residential Development Patterns at the Urban Fringe*.

Using fictional prototypical development patterns and five housing types, costs were estimated for each housing type development. The study also simulated the construction of communities with 10,000 dwelling units consisting of different combinations of dwelling units according to six prototypes. Using this approach, the study was able to estimate costs for a large range of densities (single family to high rise) and to explore the effect of urban form on costs. It concluded that higher densities result in lower economic costs, environmental costs, natural resource consumption, and some personal costs for a given number of dwellings. However, as the study acknowledges: "The results are not directly applicable to any specific development, either existing or proposed. The features of a particular site or community substantially affect the magnitude of any of the costs."²

More directly related to subdivision regulation impacts was the National Association of Home Builders (NAHB) research on *Cost- Effective Site Planning* (1976, updated in 1982 and 1986). The study estimated development costs for roads, sewers, water and drainage, clearing, grading, driveways, and street trees for a prototypical conventional and cluster developments. The results showed that cluster design of low-density residential sites can achieve a savings in lot development costs compared to conventional ones.

The Massachusetts' Study - Scope and Purpose

This study of Massachusetts' jurisdictions attempts to further understand the universe of regulations as manifested in the practices and attitudes of subdivision controls. By obtaining an in-depth view of existing regulatory procedures in Massachusetts, issues can

be identified that might otherwise be unattainable through reading the regulations themselves. What are the issues and contentions with regard to subdivision controls and regulations? What are the attitudes and perceptions of public officials? What are the most common mechanisms for the enactment of these regulations, and how are they perceived, challenged and implemented?

Another important intention of this study is to gain an understanding of changing practices, trends and attitudes within a larger national context and over the last thirty years. The study therefore utilizes and compares findings from similar research completed in 2002 by the author. This nationwide survey of jurisdictions which are experiencing rapid development and of developers who are working in these areas, assesses attitudes and perceptions and identifies the issues within subdivision regulations that members of the housing industry and the regulatory agencies feel are affecting housing development. (Ben-Joseph 2003) The national data is also analyzed by region so comparisons with results from the Northeast and Massachusetts are made in this study.

A second national survey of regulations and housing costs, conducted in 1976 by Stephen Seidel and the Center for Urban Policy Research at Rutgers University, is based on interviews with key informants involved in developing local regulations. (Seidel 1978) It specifically looks at seven types of government regulations on housing:

- Building Codes
- Energy Conservation Regulations
- Subdivision Regulations
- Zoning
- Growth Controls
- Environmental Regulations
- Settlement and Financing Regulations

The subdivision regulation section is one of the most comprehensive analyses of subdivision requirements and their effect on housing costs. It shows that by 1976, subdivision regulations had become more complex, and in the eyes of developers, much more onerous. Seidel also states that: “Far and away the area of regulation cited as containing the most unnecessary costs was subdivision controls. Over 72 percent of the respondents estimated that unnecessary aspect of subdivision controls were responsible for more than 5 percent of the total price of the unit.” (Seidel, 1978, 37)

The 2002 Ben-Joseph’s national survey finds that these conditions have not improved. Developers continue to express the belief that government regulations are the most significant problem in doing business, despite numerous studies and governmental commissions calling for efficiency in the regulatory process. The process has increased in its complexity, the number of agencies involved, the numbers of delays in the approval process, and the adding of new requirements. The regulations cited as adding the most unnecessary costs to the price of the unit are subdivision controls. (Ben-Joseph 2003)

Methodology

Similar in part to both Ben-Joseph's 2002 and Seidel's 1976 work, this study composed a statewide survey of Massachusetts' public officials. At the end of 2003, public officials heading planning or permitting agencies for the 351 towns and cities of Massachusetts were mailed a written questionnaire. The response rate was 33 percent (116 towns) with an almost even distribution across the state. (See appendix A for detailed list)

Limitations

Obviously a study of this nature has its limitations. For example, it does not trace or tally actual data based on subdivision submissions, approvals or permits issued. It relies on the responders' answers and their overall perceptions. Furthermore, it had no control as to who actually completed the survey (although all were addressed to the public officials responsible for subdivision approval) nor was it able to control for the responders subjective perceptions.

Therefore this study should be seen as gauging attitudes and perceptions and allowing for some insight of actual performance. To complement this study and enhance the understanding of the state of subdivision practices in Massachusetts, research of hard data should be carried out. Such research could examine actual permits issued in various jurisdictions, actual subdivisions constructed, types of variances requested and their associated debates, tracing the time it takes from submission to approval to occupancy, the language and specifications of subdivision regulations in various jurisdictions, and a comparison of required specifications.

Organization

The first section provides an overview on Subdivision Regulations in Massachusetts. It is taken from *Subdivision Control: An Overview of the Subdivision Control Law, Commonwealth of Massachusetts* by Donald J. Schmidt Commonwealth of Massachusetts The Department of Housing and Community Development, 1998. Section two describes general subdivision practices as indicated by the public officials. It also covers requirements and perceptions about physical improvements and site development standards. Section three surveys assorted changes to requirements. It also presents a range of practices and attitudes regarding alternative subdivision developments such as Planned Unit Developments, and the impacts of growth and environmental control measures. The next section, section four, examines the correlation of the findings to the median household income of the communities surveyed, and discusses the results and their implications.

1. Subdivision Regulations in Massachusetts ³

In Massachusetts early subdivision regulations originated in a concern over the effect of the development of public and private streets. The City of Boston passed a regulation in 1891 stating that no person might open a public way until the layout and specifications were approved by the street commissioners. By 1916 similar powers were conferred on Boards of Survey in many cities and towns throughout the Commonwealth. In 1936 the subdivision control powers were expanded and conferred on planning boards. The Legislature made a comprehensive revision to the statute in 1953 which marked the beginning of a separate Subdivision Control Law, MGL, Chapter 41, Sections 81K through 81GG. Although this statute has been amended since 1953, most of the provisions are essentially in the form as we know now it.

The 1953 amendments to the subdivision control legislation were adopted largely upon the basis of the recommendations of a Special Commission on Planning and Zoning. The Commission was created by the Legislature in 1951 to study the zoning and planning laws of the Commonwealth as it had become difficult even for skilled and experienced professionals to examine titles to lots and to ascertain whether the Subdivision Control Law was applicable. It was also extremely difficult for the Registers of Deeds to decide whether to accept a plan for recording.

Among other things, the Commission found that the existing subdivision control statute was not sufficiently clear that the primary purpose of the law was regulating the design and construction of ways in subdivisions. The Commission further noted that some well-intentioned but overzealous planning boards attempted to use their powers of approving or disapproving plans of proposed subdivisions to enforce conditions intended for the good of the public, but not relating to the design and construction of ways within subdivisions. The Commission's report recommended inserting a purpose section into the subdivision control law to clarify the language of the statute, "especially in some particulars where overzealous city planners have attempted to extend their authority to an extent greater than was intended by the framers of the law." As a consequence of the Commission's report a new purpose section (81M) was added to the Subdivision Control Law.

The rationale for government imposition of subdivision controls is based in the police power - the right of political entities to regulate in order to promote the health, safety and general welfare of the community. As such, three general goals exist in the establishment of such regulations:

- preventing premature, partial subdivisions which are poorly linked to the broader community
- preventing poor quality, substandard subdivisions with inadequate public facilities and infrastructure
- reducing financial uncertainty and risk to the investor, buyer and the community

The following extract from Massachusetts in 1953 is an example of this intent:

... subdivision control law has been enacted for the purpose of protecting the safety, convenience and welfare of the inhabitants of the cities and towns ... by regulating the laying out and construction of ways in subdivisions providing access to the several lots therein, but which have not become public ways, and ensuring sanitary conditions in subdivisions and in proper cases parks and open areas. The powers of a planning board ... under the subdivision control law shall be exercised with due regard for the provision of adequate access to all lots in a subdivision by ways that will be safe and convenient for travel; for lessening congestion in such ways and in the adjacent public ways; for reducing danger to life and limb in the operation of motor vehicles; for securing safety in the case of fire, flood, panic and other emergencies; for ensuring compliance with the applicable zoning ordinances or bylaws; for securing adequate provisions for water, sewerage, drainage, underground utility services, fire, police, and other similar municipal equipment, and street lighting and other requirements where necessary in a subdivision; and for coordinating the ways in a subdivision with each other and with public ways in the city or town in which it is located and with the ways in neighboring subdivisions. (MA Subdivision Control Law, MGL, Chapter 41, Sections 81K)

Subdivision Control Law in Massachusetts takes effect in a particular community as decided by the local legislative body. As of January 1, 1954 the Law is not in effect in a municipality unless the board notified the Register of Deeds and the Recorder of the Land Court that the municipality accepted the provisions of the Subdivision Control Law. The notice should have included a copy of the City Council or Town Meeting vote, certified by the municipal clerk, under which the provisions of the Subdivision Control Law were accepted.

Once the Subdivision Control Law is operable in a community, the Law requires a Planning Board to adopt reasonable rules and regulations relative to subdivision control which are not inconsistent with the Subdivision Control Law. The rules and regulations must specify the requirements of the Board relative to the location, construction, width, and grades of proposed ways and the installation of municipal services. The reason the Law mandates that the Planning Board adopt reasonable rules and regulations is so that a prospective subdivider will know in advance what will be the improvement requirements such as street construction and public utilities.

The Planning Board must hold a public hearing before adopting or amending subdivision control rules and regulations. Notice of the public hearing must include the date, time, place and subject matter of the public hearing. Notice of the public hearing must also be published in a newspaper once in each of two successive weeks with the first publication being not less than 14 days before the day of the hearing.

Procedure for the Review, Approval or Disapproval of Plans

The Massachusetts Subdivision Control Law sets out a detailed procedure for the review, of subdivision plans by a Planning Board. All subdivisions of land must be approved by the Planning Board.

Preliminary plans -- The provisions for allowing the submission of preliminary plans first appeared in 1947. At that time, the Planning Board was allowed to give tentative approval, with or without suggested modifications. Action by the Planning Board was not binding as the preliminary plan process was merely a step toward a final decision which would later be made on a complete and detailed definitive plan. In 1958, a detailed definition of a preliminary plan was added to the statute. The statute was also amended allowing the Planning Board to disapprove a preliminary plan.

Up until 1986, the submission of a preliminary plan was voluntary and primarily designed to commence discussion between the applicant and the Planning Board over the proposed development. The statute made no distinction between residential and nonresidential plans. The 1986 amendment to the statute required the mandatory submission of preliminary plans for all nonresidential subdivisions. The notion was a preliminary plan which complies with the regulations will have the benefit of the shorter definitive plan review period.

Preliminary plans are submitted to the Planning Board and the Board of Health and written notice that the plan has been submitted goes to the municipal clerk. Within 45 days after submission of a preliminary plan each board must notify the applicant and municipal clerk by certified mail either that the plan has been approved, or that the plan has been approved with modifications suggested by the board or agreed to by the person submitting the plan, or that the plan has been disapproved.

There is no specific penalty provided for the Board failing to take timely action. Generally, the provisions of the Subdivision Control Law relating to a plan are not applicable to a preliminary plan. The Register of Deeds may not record a preliminary plan. A developer has no right to appeal the action taken by the Planning Board on a preliminary plan, and the Planning Board has no right to refuse to receive a definitive plan merely because the Board has disapproved a preliminary plan.

Definitive Plans -- The initial step requires an applicant to submit a plan showing the lots into which such land is to be divided. A definitive plan is submitted when to the planning board and the Board of Health. The applicant must also give written notice to the municipal clerk that a plan was submitted. Upon receipt of the plan, the Planning Board is required to hold a public hearing.

The Board of Health has 45 days after the definitive plan is filed to report in writing to the Planning Board either its approval or disapproval of the plan. Failure of the Board of Health to report is considered an approval of the Plan by the Board of Health.

A Planning Board cannot approve a plan which does not conform with the recommendations of the Board of Health. If the plan does not conform with the recommendations of the Board of Health, the Planning Board must modify and approve or disapprove the plan.

Automatic approval—Automatic approval of a definitive plan will occur if the Planning Board fails to take final action or file a certificate of final action with the municipal clerk.

In the case of a nonresidential subdivision plan, final action and filing of the certificate must occur within 90 days after the submission of the plan.

In the case of a residential subdivision plan, where a preliminary plan was acted upon or where 45 days have elapsed since the submission of the preliminary plan, final action on the definitive plan and filing of the certificate with the municipal clerk must occur within 90 days after the submission of the definitive plan.

In the case of a residential plan where no preliminary plan was either filed or acted upon and 45 days had not elapsed since the filing of a preliminary plan and a definitive plan was filed, final action and filing of the certificate with the municipal clerk must occur within 135 days after the submission of the definitive plan.

Performance Guarantee and Endorsement--

The Planning Board must obtain a performance guarantee to ensure the construction of ways and the installation of municipal services. The purpose of a performance guarantee is to protect the public interest. The method for securing performance may be a proper bond, a deposit of money or negotiable securities, a covenant, a lenders agreement, or a combination of the above.

Recording Definitive Plan- The Law requires that a definitive plan must be recorded within six months after the date of the Planning Board endorsement. Upon the completion of the ways and the installation of municipal services, the applicant also notifies the municipal clerk and the Planning Board that the work has been completed.

A study by the Pioneer Institute for Public Policy Research and the Rappaport Institute for Greater Boston concludes that in Massachusetts: "Excessive regulation by agencies and boards at both the state and local level has gotten to the point of frustrating the development of housing in Massachusetts. Both levels of government need to prune back the sprawling regulations and improve coordination among the different regulatory player." (Euchner 2003, 42)

2. Subdivision Practices, Requirements and Perceptions -Study Results

Subdivisions in the United States continue to develop at a rapid pace. Between the year 2000 and 2002, the 2002 national survey found that jurisdictions approved on average 40 new subdivisions annually. Regional analysis of the national data also shows that the average annual number for the Northeast is 24 subdivisions. (Ben-Joseph 2003) By contrast, Massachusetts towns and cities only approved an annual average of 4 subdivisions from 2001 to 2003.

Massachusetts subdivisions also had lower numbers of dwelling units than reported in the national survey: 50 percent had between 6 and 25 units and 32 percent had less than 6 units, compared to the national figure of 41 percent with over 50 units. When analyzed regionally, the national data was more consistent with the Massachusetts findings. In the Northeast, where large tracks of land suitable for development are uncommon, the majority of subdivisions approved were between 6 and 25 units. (Table 1) (Ben-Joseph 2003)

Table 1
Percentage of Massachusetts Subdivisions Approved 2001-2003
(by size)

<i>Less than 6 dwelling units</i>	<i>6-25 dwelling units</i>	<i>26-50 dwelling units</i>	<i>More than 50 dwelling units</i>
32%	50%	15%	8%

With subdivision regulations controlling and shaping so much of planning and construction, what are their current impacts on housing developments? How are they practiced and enforced? How are they viewed by those who administer and those who must abide by them?

Our survey of Massachusetts public officials provides some answers by looking at three main aspects of the subdivision regulatory process: the administrative process, the site and design standard requirements, and the relationship between other regulatory frameworks such as growth controls, and subdivision development.

Time and Delays in the Approval Process

Delays and prolonged approval processes are not only prohibitive to a developer, but also have cost consequences for the consumer. In most of the jurisdictions surveyed in Massachusetts (43 percent), the average time period between initial submission of a (typical) subdivision application and tentative (or preliminary) approval is 2 to 4 months. In 27 percent of the cases, approval takes less than two months.

Although these numbers indicate an efficient turnaround and closely reflect findings from the 2002 national survey (42 percent approve plats within 2 to 4 months, 34 percent in less than two months), it should be noted that overall, there is some decline in efficiency as compared to the Seidels' 1976 national results. (Ben-Joseph 2003) For example, in 1976 half of the jurisdictions surveyed approved preliminary plats in less than 2 months; 46.7 percent approved rezoning in less than two months; and 32.9 percent approved variances or special relief in less than one month. (Seidel 1978) In 2003, only 7 percent of the Massachusetts jurisdictions surveyed were able to grant rezoning in less than two months, with the majority taking over 4 months. However over 65 percent did approve variances within 2 months. (Table 2)

The state performs better than the larger Northeast region, with a larger majority of Massachusetts jurisdictions (over 60 percent) approving preliminary plats within 2-4 months (46.9 percent for the region). (Ben-Joseph 2003)

The majority of jurisdictions in Massachusetts have a provision for automatic approval if the municipality is late in responding, although almost the same proportion also allows for the extension of the time period for approval (78 and 77.8 percent respectively). State law most commonly governs the elapsed period of time for automatic approval (51 percent or 42 jurisdictions).

Since our survey does not track specific approvals of subdivisions, the extent of automatic approval remains unclear. This suggests an opportunity for further research to establish its use, frequency, and its impacts.

While public officials see timely approval as a yardstick for measuring public performance and service, developers in the 2002 national study viewed each delay as unnecessary bureaucratic processes. (Ben-Joseph 2003) Another explanation may be the frequency and length of time by which special variances and zoning relief are processed and approved. As noted in Table 2, most public officials indicated that when such measures are required, most approvals of variances in Massachusetts take between 1-2 months which is consistent with the national indicator. Rezoning in Massachusetts seems to be a lengthy process well above the national performance with most jurisdictions indicating a period of more than 4 months.

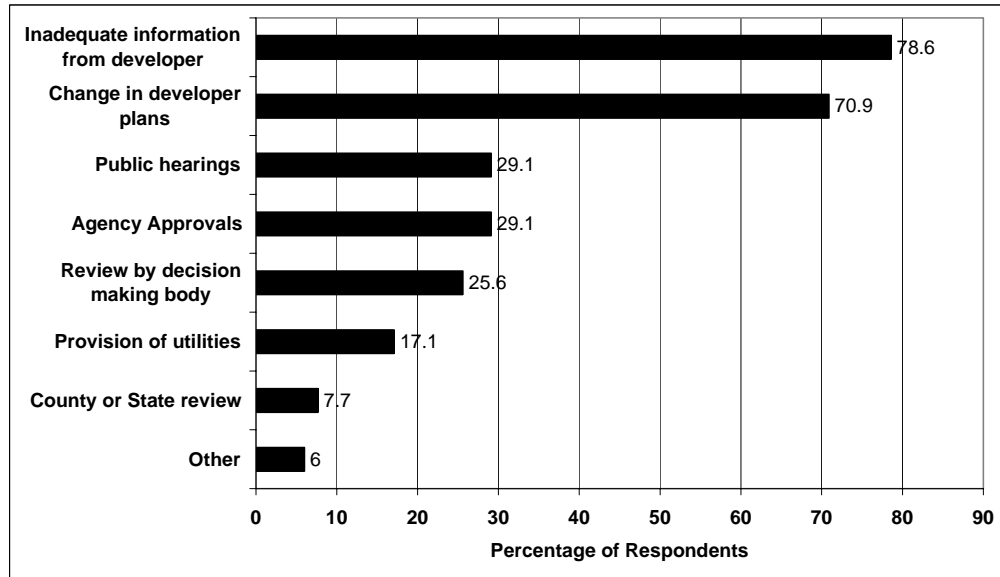
The majority of public officials surveyed in Massachusetts blame approval delays on developers. In their judgment, developers do not provide sufficient information about proposed developments (79 percent), and often change plans (71 percent). This type of assessment provides a clear indication that coordination and lack of communication between developers and public officials are major problems. These problems are not limited to Massachusetts and also exist to a greater extent across the country. The 2002 national survey reported the cause of delays as inadequate information and changed plans as 96.6 and 77.1 percent respectively. (Ben-Joseph 2003)

Table 2
Estimate of Approval Time by Massachusetts' Public Officials
(Nationwide Data from Ben-Joseph 2003)

<i>Procedure</i>	<i>Time Required</i>	<i>Percent of Municipalities (Nationwide)</i>	<i>Percent of MA Municipalities</i>
Preliminary Approval	Less than 2 months	33.9	27
	2-4 months	41.7	43
	5-7 months	14.9	17
	more than 7 months	9.5	15
		(n=158)	(n=117)
Variance or special exception	Less than one month	14.2	3
	1-2 months	60.8	64
	3-4 months	20.3	29
	more than 4 months	4.7	4
		(n=157)	(n=117)
Rezoning	Less than one month	2.8	0
	1-2 months	24.4	7
	3-4 months	41.4	26
	more than 4 months	31.4	67
		(n=157)	(n=117)

However, the approval process itself is also partly to blame; public officials in Massachusetts attributed delays to lengthy approval processes by other government agencies, and public hearings (both 29 percent). (Figure 1) In the 2002 national survey and in the Northeast region, public officials also cited government and public procedures as significant reasons for delays in the approval process, but at a higher rate of over 50 percent. (Ben-Joseph 2003)

Figure 1
 Percentage of Massachusetts Respondents Indicating Reasons for Delays in the
 Subdivision Approval Process
 (n=117)



Interestingly, the time it takes to get an approval is shorter in low, moderate and middle income communities. Over 70 percent of these jurisdictions approve subdivisions in less than 5 months as compared to 59 percent of the higher income jurisdictions. Although a lengthier approval process in higher median income communities may indicate a more detailed and comprehensive approval process, it can also indicate that delays and length may be used as a tactic to exclude development. (Table 3) The lack of statistical significance between income and either the length of time to gain variances or the number of agencies involved in the approval process further suggests approval time and rezoning may contribute to exclusionary practices.

Table 3
Time Required For Subdivision Approval by Median Income of Massachusetts
Jurisdiction
(See explanation of income grouping in Appendix B)

<i>Jurisdiction by income</i>	<i>less than 5 months</i>	<i>5-10 months</i>	<i>more than 10 months</i>	<i>Total</i>
Low (n=23)	74%	22%	4%	100%
Moderate (n=23)	70%	22%	9%	100%
Middle (n=23)	70%	22%	9%	100%
High (n=29)	59%	28%	14%	100%

Massachusetts jurisdictions generally take more than 4 months to carry out rezoning although the highest income areas are more likely to take longer than communities with lower median incomes. (Table 4)

Table 4
Time Required For Rezoning by Median Income of Massachusetts Jurisdiction
(See explanation of income grouping in Appendix B)

<i>Jurisdiction by income</i>	<i>less than 2 months</i>	<i>3-4 months</i>	<i>more than 4 months</i>	<i>Total</i>
Low (n=23)	5%	29%	67%	100%
Moderate (n=23)	13%	25%	63%	100%
Middle (n=23)	10%	24%	67%	100%
High (n=29)	4%	26%	70%	100%

The prolonged administrative and approval process required in the administration of subdivision regulations not only increases the financial risk for the investor/developer but also increases the cost to the home buyer. According to Seidel, for every additional month added to the completion date, the final selling price of the unit increases by 1-2 percent. (Seidel 1978, 32) The 2002 national survey indicates a steady rise in the average time it takes to receive subdivision approval over the last 25 years, and the increase in cost has continued to be passed on to the consumer. (Ben-Joseph 2003)

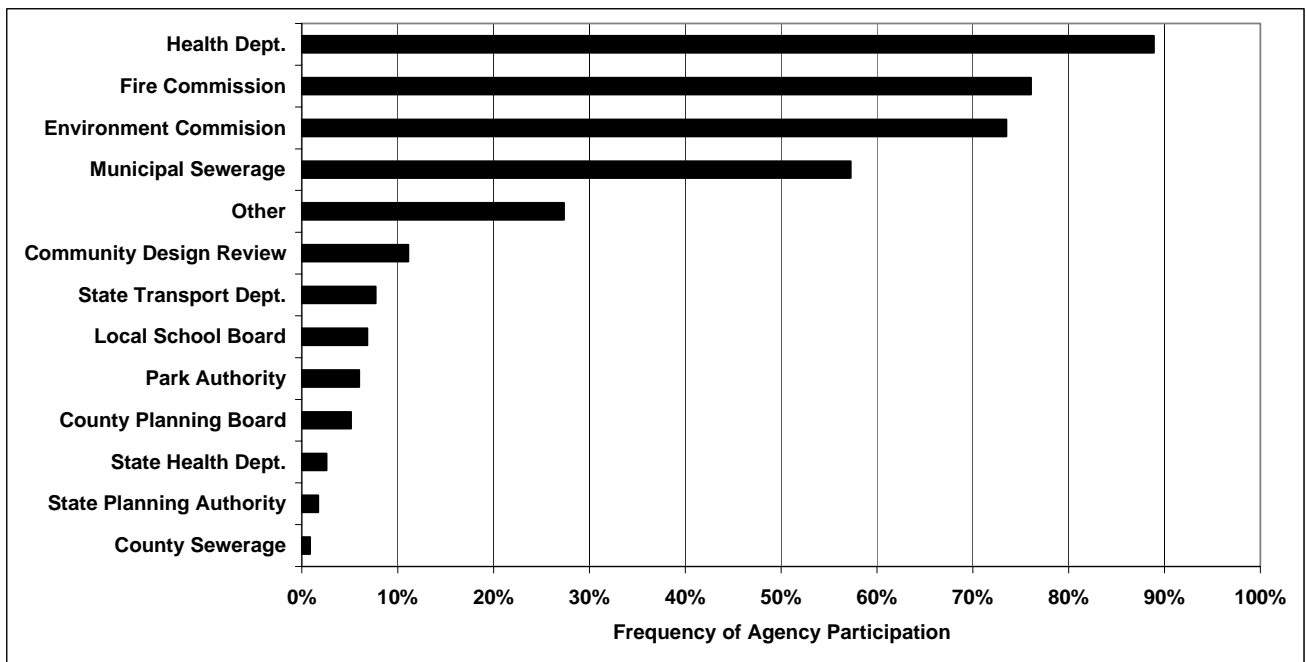
Agencies Involved in Approval Process

The proliferation of various agencies involved in the approval process could be looked at as another indication of increased bureaucracy and red tape. The 2002 national survey found that on average at least 10 agencies were involved in the subdivision approval process, with municipal sewerage departments as the most common participants (74.5 percent), followed by the health department (69.2 percent). (Ben-Joseph 2003)

In Massachusetts, on average, public officials reported that at least 4 other agencies (beside the planning commission) took part in the approval process. Topping the list were health departments (89 percent) and fire commissions (76 percent), as well as other government groups such as environment commissions and municipal sewage departments. (Figure 2)

The lower number of agencies involved in Massachusetts may be seen as a positive sign for those interested in streamlining the approval process for subdivisions.

Figure 2
Frequency and Type of Massachusetts Agencies Participating in the Subdivision
Approval Process.
(n=117)



Negotiations

Negotiations between developers and local jurisdictions can result in delays and increases in costs, but also improved design and suitability. The greatest amount of negotiation seems to involve matters in which the developer may not see an immediate gain in value of investment and in matters that may be perceived as adding to the “public good” rather than to the specific development itself. In Massachusetts, some of the issues requiring

negotiation include streetscape design (35 percent, compared to 25 percent nationally), off-site improvements (15 percent) and dedication of land for recreation or open space (7 percent). (Ben-Joseph 2003) In contrast with the 2002 national survey, issues with a direct impact on the development site such as sanitary and storm sewers are more often contended by developers in Massachusetts (20 percent, as compared to 10 percent nationally). (Table 5)

These results may indicate that in Massachusetts, where many communities do not have sewer infrastructure, the use of septic systems is linked to a direct involvement of health departments and health boards.

Table 5
Aspects of Massachusetts Subdivision Regulations Which Involve the Greatest Amount of Negotiation between the Developer and the Jurisdiction.

<i>Subdivision Aspect</i>	<i>Percent Jurisdictions (n=117)</i>
Streetscape	35%
Sanitary and storm sewers	20%
Off-site improvements	15%
Land dedication	7%
Performance guarantees	7%
Water lines and facilities	5%
Public utilities	2%
Fees in lieu of dedication	2%
Other	8%

Fees and Improvement Guarantees

Municipalities use fees as one tool by which they recover their operating costs and generate revenues. While most fees are directly associated with various steps in the approval and construction process, improvement guarantees to ensure all enhancements are completed are widely used as a precondition for approving the final plat.

The majority of Massachusetts jurisdictions surveyed impose fees on the submission of a preliminary plat (83.8 percent) and a final plat (88.9 percent). Very few (6 percent)

charge for submitting a sketch plat. Table 6 shows further distribution of fees related to permitting and inspections.

Table 6
Type and Frequency of Fees Required From Developers in Massachusetts

<i>Type of Fee</i>	<i>Percent of Jurisdictions Requiring (n=153)</i>
Final Plat	88.9%
Preliminary Plat	83.8%
Engineering fees	66.7%
Drainage inspection	58.1%
Percolation tests	58.1%
Sanitary inspection	47%
Drainage system inspection	47%
Street related fees	42.7%
Sanitary plan review	38.5%
Water inspection	37.6%
Water fees	25.6%
Sketch Plan	6%
Other fees	15.4%

The majority of jurisdictions surveyed (79 percent) require some form of improvement guarantees. Only 15 percent do not permit bonding, and thus require that all improvements are installed before final approval.

Types of guarantees include security bonds, escrow accounts, property escrow, sequential approval of subdivision, maintenance guarantee, and covenants. Although many jurisdictions use a multitude of guarantee types, the most widely employed are:

- | | |
|----------------------------------|------------------|
| 1. Escrow account (cash or note) | 88% of the cases |
| 2. Security bonds | 85% of the cases |
| 3. Property Escrow | 43% of the cases |

Eighty percent of Massachusetts' jurisdictions have a provision which allows for the reduction of the bond amount as improvements are completed. These are used more often than not. The multitude of performance guarantee options offered by municipalities, and the provision for release of bonds are encouraging. Choice allows various type of developers to be involved in housing construction. For example, a small scale developer may be viewed as high risk to many surety companies and would either be charged high premiums or denied bonding. For such a developer, an escrow account, or even better, sequential approval of segments of the subdivision as improvements are completed, may be the only way for them to participate in housing development.

Unlike the 2002 national study, no statistical significance exists between the level of median income of Massachusetts' communities and development fees or guarantees. Where nationally, low income jurisdictions more often offer reimbursement for improvements than middle and high income places, there is no such correlation in Massachusetts. Similarly there is no significant relationship between a Massachusetts' community's median income and the number of fees, their payment method or their use in lieu of provision of improvements.

Development Standards Amendments

One of developers' most widely voiced criticisms about subdivision ordinances in the 2002 national survey were the inadequacy and inflexibility of their physical standards. (Ben-Joseph 2003) Excessive street and right-of-way widths, rigid earthwork specifications, and over designed infrastructure systems are unfavorable to the introduction of site sensitive solutions, and often impede cost reductions.

Most public officials indicate that altering subdivision design by introducing new specifications, changing requirements, and introducing changes to the approval processes are common activities in their professional work. However the survey also shows that the overall number of Massachusetts' jurisdictions reducing and amending standards is relatively small.

Table 10 lists the most common amendments introduced in Massachusetts between 2001 and 2003. Of particular interest are amendments to regulations that may reduce the cost of construction and support alternative development patterns. Of the Massachusetts' jurisdictions surveyed, 6 percent have reduced their street width requirements, 24 percent have introduced more multifamily zones, and 15 percent are allowing more choice in housing types. (Table 11) In addition, 10 percent have changed their ordinances to increase senior living allowances.

It should be noted that 19 percent of the jurisdictions surveyed have increased their minimum lot sizes, while only 6 percent have reduced their size. Similarly, 16 percent have approved ordinances requiring larger lot frontages, with only 7 percent reducing that requirement.

Larger lot sizes and increases in frontage requirements should alarm reformers who are seeking to encourage denser developments, better use of developable land and increase overall housing affordability.

Table 7
Common New Subdivision Regulation Amendment Introduced in Massachusetts 2001-2003
Distribution of New Specifications in Massachusetts

<i>New Specification</i>	<i>Percent of Jurisdictions Increasing</i>	<i>Percent of Jurisdictions Reducing</i>
Multi-family zones (n=97)	24%	3%
Minimum lot size (sqf) (n=106)	19%	6%
Frontage (n=104)	16%	7%
Housing types (n=99)	15%	1%
Street width (n=103)	3%	6%
House size (n=95)	1%	0%

Land Dedication

With growing general concern over sprawl and the consumption of open space, developers are often required to reserve or dedicate a portion of their land for public purposes such as open space, recreation, or for future public buildings such as schools. The popularity of this form of regulation is evident in their steady growth and implementation since the 1976 national study. In 1976, 63 percent of municipalities surveyed had some form of land dedication requirements (both mandatory and permissive). (Seidel 1978) In 2002 the national rate increased to 81 percent with half, (49.6 percent) imposing dedication as mandatory through ordinances, and 32 percent as permissive, at the discretion of a decision-making body. (Ben-Joseph 2003)

Massachusetts has not experienced such increases. Sixty percent of its towns and cities require open space dedication, with only 9 percent absolutely mandatory. Cluster housing development introduces further mandatory requirements, although at relatively low rates. The majority of jurisdictions do not allow for fees in lieu of land dedication (65 percent). (Table 7 and 8)

When jurisdictions, from the 2002 national study, which require the dedication of land are distributed regionally, the Northeast has the highest requirements with an average of 15 percent of the total developable land devoted to open space. (Table 9) The West, on the other hand, has the lowest requirements with an average of 9 percent open space

dedication. These results may be partly attributed to compensating for the lack of open space and natural areas in the developed Northeast. Communities in this region, and in Massachusetts, may see a need to amend this shortage by requiring a larger percent of developable land dedicated for public use. (Ben-Joseph 2003)

Table 8
Requirement of Land Dedication for Open Space in Massachusetts
(Percent of Jurisdictions)

<i>Region</i>	<i>No Requirements</i>	<i>Permissive</i>	<i>Mandatory</i>
Massachusetts (n=103)	40%	34%	25% (includes mandatory in cluster)

Table 9
Typical Percentage of Total Land Area of a Massachusetts' Subdivision Required to be
Dedicated for Recreational or Open Space Purposes

<i>Percent of development required to be dedicated for recreational or open space purposes</i>	<i>Number Jurisdictions</i>
1-10%	33
11-20%	2
21-30%	6
31-40%	11
over 40%	6

Table 10
Average Percentage of Total Land Area of a Subdivision Required to be Dedicated
for Recreational or Open Space Purposes in Massachusetts

<i>Region</i>	<i>Average Percent of development to be dedicated for recreational or open space</i>
Massachusetts (n=58)	18%

In the 2002 national study, both middle and high income communities show higher levels of land dedication requirements, while low and moderate income communities allow more development to occur without asking for open space dedication. The

Massachusetts' survey does not show any significant correlation between land dedication and median income. Wealthier Massachusetts' communities do not appear to be using open space requirements to limit development, and low and moderate income places are not disproportionately accepting development over land dedication.

3. Alternative Developments

Planned Units, Traditional Neighborhoods, Conservation, and Others

In the 1960s, planners and public officials increasingly criticized conventional forms of subdivision development. Their failure to provide for innovative design and planning solutions, together with increased criticism over cost and waste of resources, led planning authorities to search for more flexible and inclusive approaches to design and development approval.

Whether taking the form of typical PUDs, cluster developments, or the more contemporary Traditional Neighborhood Developments (TNDs) and Conservation Subdivisions, these types of communities have become a significant phenomenon in subdivision development across the US. Indeed almost all of the jurisdictions surveyed in 2002 (86 percent or 137 jurisdictions) have an ordinance for alternative development approval in place. (Ben-Joseph 2003)

The trend is less pronounced in Massachusetts. Out of 95 jurisdictions, only 12 (10 percent) have a TND ordinance. Conservation Development is much more common, with almost 50 percent of reporting communities having introduced this type of ordinance. (Table 12) The number of progressive development ordinances in Massachusetts' towns and cities also do not significantly correlate to their level of income.

Table 11
Percentage of Massachusetts' Jurisdictions with Alternative Development Ordinances

<i>Ordinance Type</i>	<i>Percentage of Jurisdictions which have Alternative Development Ordinances</i>
Planned Unit Development (n=99)	33.3%
Conservation Development (n=98)	48.7%
Neo-traditional (New Urbanism) (n=95)	10.3%
Other (n=29)	18.8%

Note: Some jurisdictions have enacted more than one alternative development ordinance

Although many jurisdictions have the mechanism to approve alternative developments such as PUDs, just over half of the jurisdictions (responding to this question) have actually built one. Table 13 shows the distribution of these developments in reporting jurisdictions. Conservation Development is the most common again, however perhaps at lower built rates than the number of jurisdictions with such ordinances might suggest.

Table 12
Percent of Massachusetts' Jurisdictions with Alternative Subdivisions (PUDs, TNDs, etc.) Constructed

<i>Type of Alternative Development</i>	<i>Percent Jurisdictions with 1-2</i>	<i>Percent Jurisdictions with 3-4</i>	<i>Percent Jurisdictions with 5-10</i>	<i>Percent Jurisdictions with over 10</i>
PUD (n=41)	37%	12%	2%	5%
Conservation Development (n=55)	20%	16%	20%	18%
Neo-traditional (n=19)	32%	11%	5%	0%

Growth and Environment Control Measures

The consequences of urban growth and environmental degradation have been at the center of the political and professional planning agenda for the last three decades. From the national to the local level, governments have introduced various measures and mechanisms to control and amend growth's undesired consequences. Although such measures address wider aspects of urban development, many have a direct impact on subdivision design and construction.

One-third, or 39 of the surveyed Massachusetts' jurisdictions have enacted at least one growth control measure. This is slightly higher than the 2002 national survey finding for the Northeast of 23 percent of jurisdictions. (Ben-Joseph 2003) Out of a variety of measures, phased development controls are the most widely used in Massachusetts (17.1 percent). (Table 14) Under this approach,

Table 13
Growth Control Measures Enacted in Massachusetts

<i>Growth Control Measure</i>	<i>Number of Jurisdictions Enacting</i>
Phased development controls (n=105)	20
Absolute limit on annual permits (n=104)	19
Sewer moratorium (n=101)	11
Interim zoning restrictions (n=102)	8
Impact fees (n=101)	8
Adequate public facilities ordinance (n=103)	2

Note: Some jurisdictions have enacted more than one growth control measure

When distributed in relation to the level of median family income for each municipality, the 2002 national survey found that none of the low income communities had a growth control measures. Almost 40% of both middle and high income communities implemented at least one. This is not the case in Massachusetts where there is no significant correlation between the median income of a jurisdiction and its enactment of growth controls.

Massachusetts' jurisdictions do use a less explicit method to control growth: minimum lot sizes for septic tank systems. While this approach to dealing with sewage requires a set amount of land in relation to the size of the tank in order to process waste to safe levels for public health and water quality, it is also a means of limiting the number of new lots within a community. In Massachusetts, 83 percent of surveyed jurisdictions allow septic systems. Approximately a third of those towns require lot sizes between a half and one acre, another third between one and two acres, while most of the remainder have no minimum requirements at all.

As noted previously, minimum lot sizes in Massachusetts also increased between 2001 and 2003 in almost 20 percent of surveyed communities but these are not correlated with the median income of these places. Similarly, there is no significant relationship between the minimum lot size required for septic tank systems and median family income. However the prevalence of septic systems in Massachusetts and the increases in minimum lot sizes may contribute to statewide declines in affordability of land and the opportunities to build higher density housing.

4. Subdivision Regulations as an Exclusionary Device

According to a recent study by the Pioneer Institute for Public Policy Research and the Rappaport Institute for Greater Boston housing affordability in Massachusetts is detrimentally affected by development regulations and processes which both increase costs and discourage, or prohibit, certain housing types. (Euchner 2003) This is of particular concern in higher income communities which use a selection of ordinances to prevent the construction of lower income or affordable housing within their jurisdictions.

Seidel (1978) also points to two important factors associated particularly with subdivision regulations:

- the exclusionary implications of demanding higher standards
- the hidden increase of cost due to a prolonged approval process

Seidel writes: “The desire to ensure high-quality subdivisions is sometimes synonymous, in effect if not always in intent, with the exclusion of those people who can afford only low-cost housing. Thus any rationale for extensive subdivision requirements justified on the basis of avoiding ‘blight’ demands more than superficial inspection. The level of public improvements required must be scrutinized to determine whether or not the regulations are actually designed to erect an economic barrier to keep out the poor and, increasingly, those with a moderate income as well.” (Seidel 1978, 125)

In a number of instances, our study examined various regulations according to the median household income of the jurisdictions surveyed. (see Appendix B for characteristics of surveyed jurisdictions). The results show that in higher income communities, approval of development takes longer than in those with lower incomes. This is consistent with findings from the 2002 national survey. (Ben-Joseph 2003) Rezoning also takes almost twice as long in the most affluent jurisdictions in Massachusetts, which suggests administrative and public resistance to development which does not conform to existing zoning codes.

However, in most other development aspects Massachusetts’ jurisdictions do not show correlation between level of income and exclusionary practices. For example communities are not actively increasing minimum lot sizes or zoning out multi-family housing, two common methods which deter the construction of modest and often higher density housing for lower income household. Wealthy jurisdictions have not significantly introduced growth limits which constrain the amount of development allowed per year, or open space dedication which effectively reduces the amount of land available for new housing. As the study sample only represents one third of all Massachusetts’ communities, further analysis of the relationship between levels of income and the burden of regulations may be necessary.

Correlation Analysis

The data were tested to see if there were correlations between median household income and various factors, including:

- The average time between submission and obtaining development approvals
- The average time for re-zoning to occur
- The average time to obtain a variance
- The number of Progressive Development Ordinances (PUDs, Conservations Developments, Neo-traditional Dev) in place
- The minimum lot size for septic tank installation
- The provision for auto-approval if the municipality is late in responding
- The number of agencies involved in the approval process
- The percentage of municipalities where Multi-family zoning decreased
- The percentage of municipalities where minimum lot size increased
- The percentage of municipalities where minimum house size increased
- The number of growth controls in place per municipality
- The number of permits, approvals, and fees that must be obtained or paid
- The number of ways that a developer can pay for permits, approvals, and fees
- The amount of space available for development (inverse of the amount of open space required)
- The percentage of municipalities that allow fees in lieu

Correlation between high income communities and subdivision regulations variables were found in the following instances:

- High income communities are more likely to take longer between submission and approval than low-income communities. (between 5-7 months compare to 2-4 months)
- High income communities are more likely to take longer to re-zone than low-income communities. (3-4 months compare to 1-2 months)

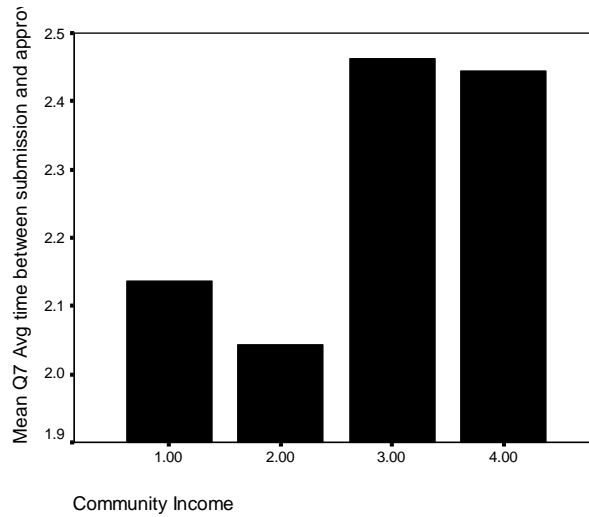
No correlation was found in the other variables tested.

The quartile breakdowns for income were as follows:

Bottom Quartile (1.00) – \$0 to \$44,855
Lower-middle Quartile (2.00) - \$44,856 to \$55,249
Upper-middle Quartile (3.00) - \$55,250 to \$68,391
Top Quartile (4.00) – Over \$68,392

The following charts provide examples of our analysis:

Chart 1
Average Time between Submissions and Approvals



1 = less than 2 months 2 = 2-4 months 3 = 5-7 months 4 = 8-10 months
5 = > 10 months

Correlations

		Avg time between submission and approval	Med HH Inc.
Avg time between submission and approval	Pearson Correlation	1	.247(*)
	Sig. (2-tailed)	.	.014
	N	100	99
Med HH Inc.	Pearson Correlation	.247(*)	1
	Sig. (2-tailed)	.014	.
	N	99	115

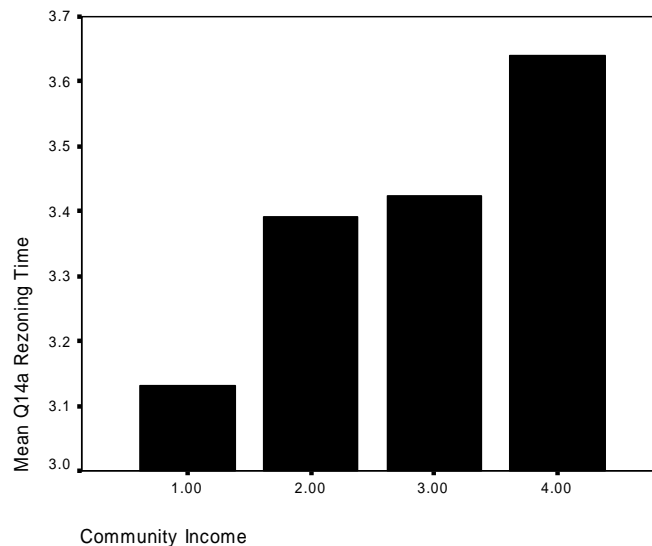
* Correlation is significant at the 0.05 level (2-tailed).

Descriptive Statistics

	N	Range	Minimum	Maximum	Mean	Std. Deviation
Avg time between submission and approval	100	4.00	1.00	5.00	2.2900	1.19168
Med HH Inc.	115	153918	0	153918	59719.20	24838.203
Valid N (listwise)	99					

The average time period between submission and approvals is 2.29. This translates to somewhere between 2 and 4 months (value of 2) and 5 to 7 months (value of 3). High income communities are more likely to take longer between submission and approval than low-income communities.

Chart 2
Average Rezoning Time



1 = less than 1 month 2 = 1-2 months 3 = 3-4 months 4 = more than 4 months

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Med HH Inc.	115	0	153918	59719.20	24838.203
Rezoning Time	99	0	4	3.41	1.000
Valid N (listwise)	98				

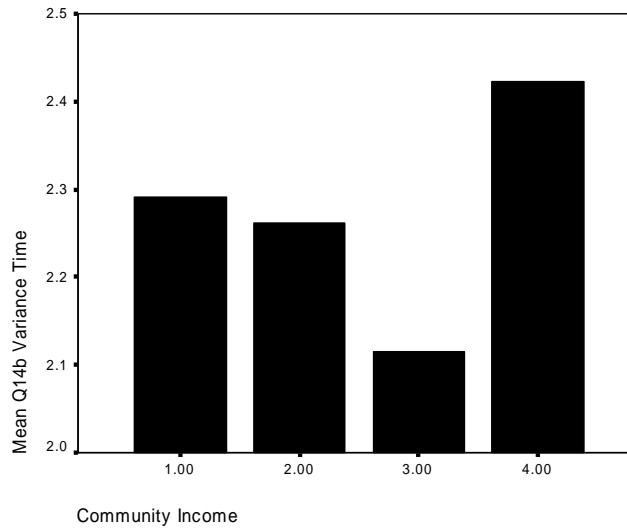
Correlations

		Med HH Inc.	Rezoning Time
Med HH Inc.	Pearson Correlation	1	.208(*)
	Sig. (2-tailed)	.	.040
	N	115	98
Q14a Rezoning Time	Pearson Correlation	.208(*)	1
	Sig. (2-tailed)	.040	.
	N	98	99

* Correlation is significant at the 0.05 level (2-tailed).

The average time to re-zone an area is 3.41. Translated into months, this is between 3 to 4 months (3) and more than 4 months (4). High income communities are more likely to take longer to re-zone than low-income communities.

Chart 3
Average Time to Obtain a Variance



1 = less than 1 month 2 = 1-2 month 3= 3-4 months 4 = more than 4 months

Descriptive Statistics

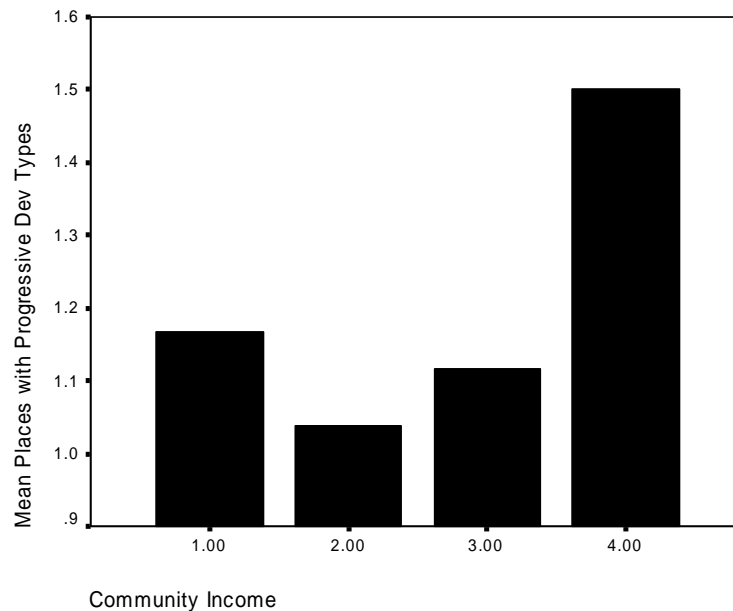
	N	Minimum	Maximum	Mean	Std. Deviation
Med HH Inc.	115	0	153918	59719.20	24838.203
Variance Time	101	0	4	2.30	.686
Valid N (listwise)	100				

Correlations

		Med HH Inc.	Q14b Variance Time
Med HH Inc.	Pearson Correlation	1	.057
	Sig. (2-tailed)	.	.571
	N	115	100
Q14b Variance Time	Pearson Correlation	.057	1
	Sig. (2-tailed)	.571	.
	N	100	101

The average time to obtain a variance is 2.30. Translated into months, this represents a time between 1 to 2 months (2) and 3 to 4 months (3). There is no statistically significant correlation between the average time to obtain a variance and community income level.

Chart 4
Number of Progressive Development Ordinances (PUDs, Conservation developments,
Neo-traditional developments) per municipality



Descriptive Statistics

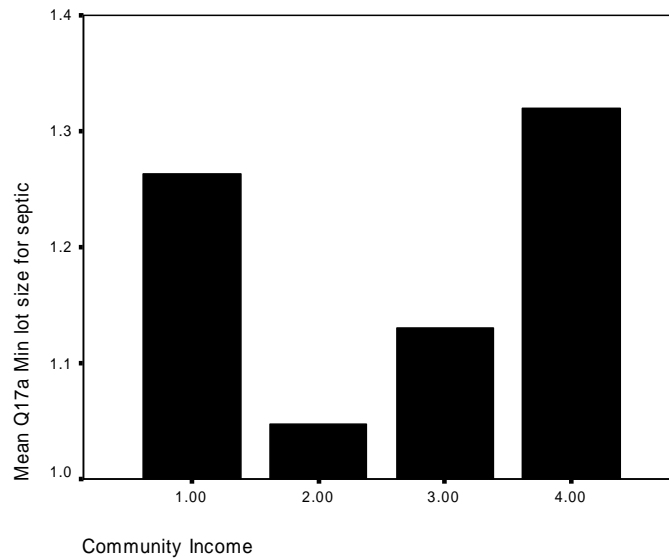
	N	Minimum	Maximum	Mean	Std. Deviation
Med HH Inc.	115	0	153918	59719.20	24838.203
Places with Progressive Dev Types	106	.00	3.00	1.1981	.97999
Valid N (listwise)	105				

Correlations

		Med HH Inc.	Places with Progressive Dev Types
Med HH Inc.	Pearson Correlation	1	.132
	Sig. (2-tailed)	.	.181
	N	115	105
Places with Progressive Dev Types	Pearson Correlation	.132	1
	Sig. (2-tailed)	.181	.
	N	105	106

The average community in Massachusetts has 1.198 progressive development ordinances, and there is no statistically significant difference between the number of progressive development ordinances recorded and the income level of the town.

Chart 5
Minimum Lot size for Septic Installation



0 = no minimum 1 = half acre to one acre 2 = one acre to two acres 3 = greater than two acres

Descriptive Statistics

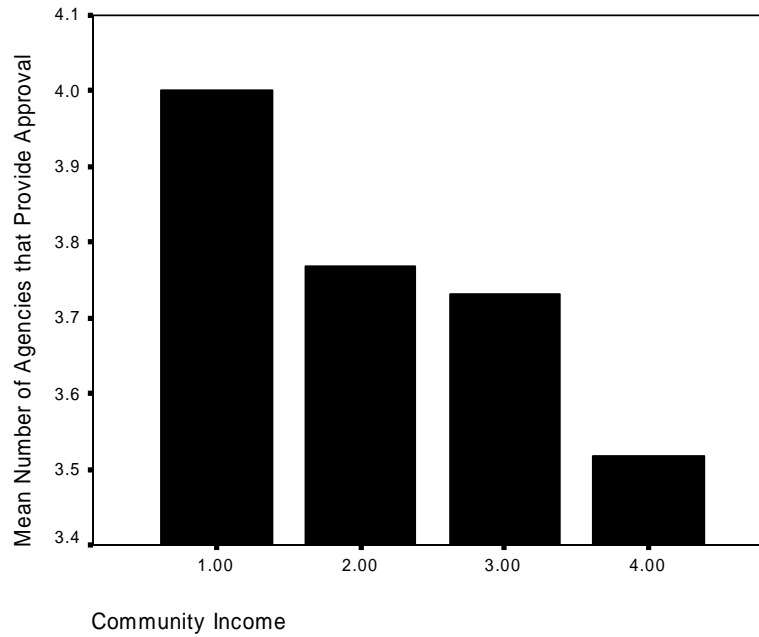
	N	Minimum	Maximum	Mean	Std. Deviation
Med HH Inc.	115	0	153918	59719.20	24838.203
Min lot size for septic	91	0	3	1.22	.952
Valid N (listwise)	89				

Correlations

		Med HH Inc.	Min lot size for septic
Med HH Inc.	Pearson Correlation	1	.007
	Sig. (2-tailed)	.	.946
	N	115	89
Min lot size for septic	Pearson Correlation	.007	1
	Sig. (2-tailed)	.946	.
	N	89	91

The minimum lot size for septic tank installation is 1.22. This translates to a lot between a half acre to one acre (1) and one acre to two acres (2). There is no statistically significant correlation between the minimum lot size required by a community for septic tank installation and community income.

Chart 6.
Number of Agencies that Provide Approval



Descriptive Statistics

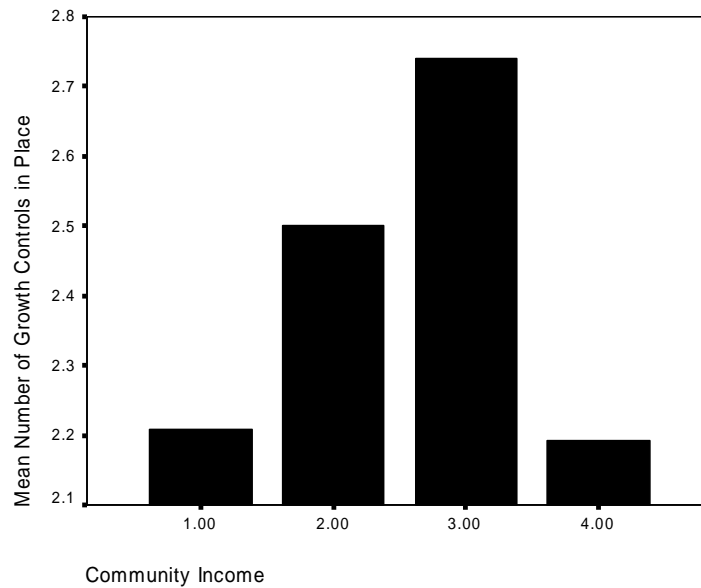
	N	Minimum	Maximum	Mean	Std. Deviation
Med HH Inc.	115	0	153918	59719.20	24838.203
Number of Agencies that Provide Approval	105	.00	7.00	3.7238	1.28972
Valid N (listwise)	104				

Correlations

		Med HH Inc.	Number of Agencies that Provide Approval
Med HH Inc.	Pearson Correlation	1	-.094
	Sig. (2-tailed)	.	.344
	N	115	104
Number of Agencies that Provide Approval	Pearson Correlation	-.094	1
	Sig. (2-tailed)	.344	.
	N	104	105

On average, 3.72 agencies per municipality provide development approvals. There is no statistically significant difference in the income level of communities and the number of agencies that provide approvals.

Chart 7
Number of Growth Controls in Place per Municipality



Descriptive Statistics

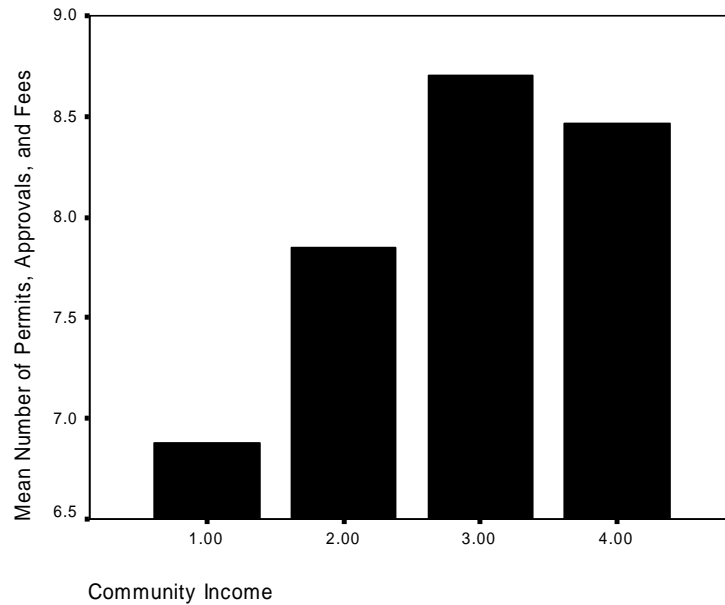
	N	Minimum	Maximum	Mean	Std. Deviation
Med HH Inc.	115	0	153918	59719.20	24838.203
Number of Growth Controls in Place	106	.00	6.00	2.4057	.98347
Valid N (listwise)	104				

Correlations

		Med HH Inc.	Number of Growth Controls in Place
Med HH Inc.	Pearson Correlation	1	-.077
	Sig. (2-tailed)	.	.439
	N	115	104
Number of Growth Controls in Place	Pearson Correlation	-.077	1
	Sig. (2-tailed)	.439	.
	N	104	106

Massachusetts' municipalities have an average of 2.41 growth controls in place. High income communities are not more likely to have these growth controls than low-income communities.

Chart 8
Number of Permits, Approvals, and Fees



Descriptive Statistics

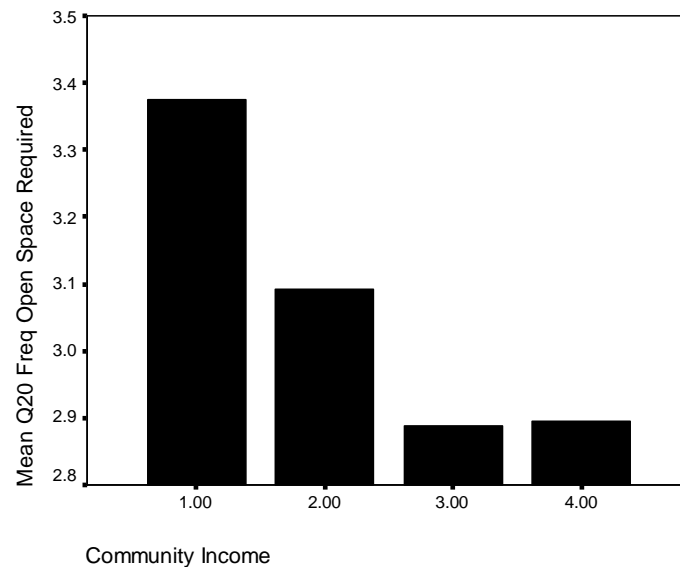
	N	Minimum	Maximum	Mean	Std. Deviation
Med HH Inc.	115	0	153918	59719.20	24838.203
Number of Permits, Approvals, and Fees	107	1.00	15.00	8.0093	3.54352
Valid N (listwise)	106				

Correlations

		Med HH Inc.	Number of Permits, Approvals, and Fees
Med HH Inc.	Pearson Correlation	1	.079
	Sig. (2-tailed)	.	.420
	N	115	106
Number of Permits, Approvals, and Fees	Pearson Correlation	.079	1
	Sig. (2-tailed)	.420	.
	N	106	107

The average Massachusetts' community has 8.01 fees, approvals, and permits that a developer must obtain. There is no statistically significant difference (at 95% confidence) in the number of fees, approvals, and permits that must be obtained in a low-income community versus a high-income community.

Chart 9
Amount of Land Available for Development (inverse of required open space)



1 = greater than 50% open space 2 = 26-50% open space 3 = 10-25% open space
4 = less than 10% open space

Descriptive Statistics

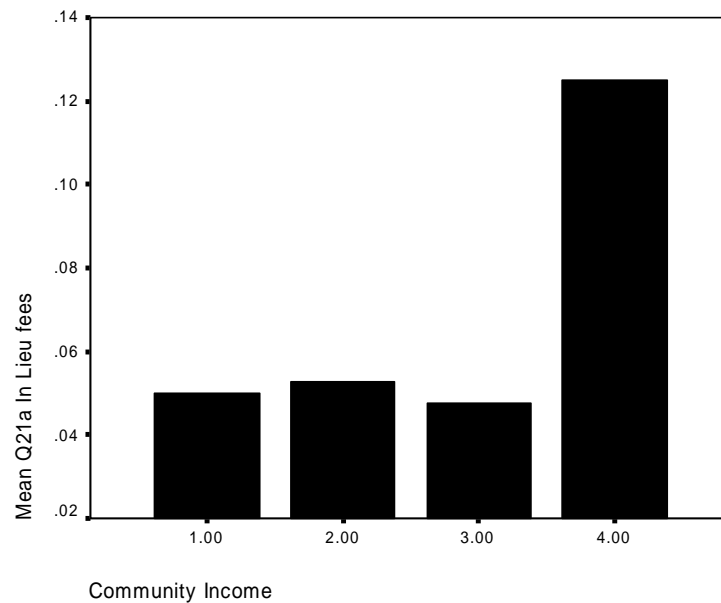
	N	Range	Minimum	Maximum	Mean	Std. Deviation
Med HH Inc.	115	153918	0	153918	59719.20	24838.203
Freq Open Space Required	47	3	1	4	3.02	1.053
Valid N (listwise)	47					

Correlations

		Med HH Inc.	Q20 Freq Open Space Required
Med HH Inc.	Pearson Correlation	1	-.105
	Sig. (2-tailed)	.	.484
	N	115	47
Q20 Freq Open Space Required	Pearson Correlation	-.105	1
	Sig. (2-tailed)	.484	.
	N	47	47

The average community in Massachusetts requires 10-25% of their land area to be kept as open space. There is no statistically significant difference between the amount of open space required and the income level of a community.

Chart 10
Percentage of Municipalities that Allow Fees in Lieu



Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Q21a In Lieu fees	86	0	1	.07	.256
Med HH Inc.	115	0	153918	59719.20	24838.203
Valid N (listwise)	85				

Correlations

		Med HH Inc.	Q21a In Lieu fees
Med HH Inc.	Pearson Correlation	1	.147
	Sig. (2-tailed)	.	.180
	N	115	85
Q21a In Lieu fees	Pearson Correlation	.147	1
	Sig. (2-tailed)	.180	.
	N	85	86

7% of Massachusetts' communities allow developers to pay fees in lieu of inclusionary zoning or other requirements instead of building such features into their projects. There is no statistically significant correlation (at 95% confidence) between the likelihood that a community will allow fees in lieu and the income level of that community.

Conclusions and Recommendations

On March 10, 2004 the General Court of the Commonwealth of Massachusetts Joint Committee on Local Affairs and Regional Government held a public hearing on legislation that would comprehensively amend the state's zoning and subdivision control laws. The proposal, also known as the Massachusetts Land Use Reform Act (LURA), started in the late 1990s as collaboration among planners, municipal officials, legislators, environmentalists and housing advocates. In June 2003, the Massachusetts Municipal Association Board of Directors voted to support LURA and amendments that will "enhance the capacity of cities and towns to make effective land use and zoning decisions."⁴ If LURA will be approved as proposed, it will include some fundamental changes to existing practices. In part, it is designed to strengthen the powers of local boards and officials to control development and to regulate land use. It will for example affirm the "home rule" powers of municipalities in Massachusetts and allow cities and towns to use zoning for a broader range of purposes than currently recognized by the state's courts. It will require all plans creating new lots to obtain formal subdivision approval and will allow cities and towns to impose "impact fees" on developers for all projects to pay for related utility and infrastructure costs, transportation, educational and other municipal expenses.

Massachusetts proposed Land Use Reform Act has been accompanied by other efforts to reduce regulatory barriers to housing development. In 2002 the Report of the Governor's Special Commission on Barriers to Housing Development recommended many steps to improve zoning and subdivision regulations and practices. Many of these recommendations are in step with this survey findings and conclusions. For example, the Commission suggests that Massachusetts create a code coordinating council at the state level to insure systemic coordination of procedures for code enforcement. This council would also examine review timeframes and create a model protocol to promote coordination of permitting and inspections. Our survey indeed indicates that in the process of housing development, the subdivision approval process in Massachusetts has not been streamlined, has been lengthening in time, and that delays are also caused by the bureaucratic process related to multiple agency approvals.

In addition, the commission suggested training of staff and funding to pay for the training. It also voted to provide every community with equipment and software to track the permitting and inspection processes, including the creation of a website including all state codes and a search function by keyword. Such steps would indeed help amend the prevailing situation as indicated in our survey. Changes, particularly those which adjust or repeal provisions that are designed to facilitate the use of land for residential purposes, such as subdivision regulations, may well exacerbate an already acute shortage of reasonably priced housing in the state.

The introduction of electronic technology into the permitting system will also improve streamlining. As internet use is spreading and becoming more available, the public increasingly expects to conduct their affairs from home or office with greater immediacy. From automatic approval of plans, to equipping inspectors with portable devices for recording and inspecting, electronic permitting systems can provide better and more timely information to decision makers and experts. The possibility for electronic plan review is particularly encouraging for its potential to automatically analyze a plan, and compare it with code and standard requirements. Alternatively, such systems can allow

the plan reviewer to enter various descriptors and benchmarks and let the software call up the applicable requirements for consideration. This process will ease the burden of subdivision planning and assure a certain consistency of performance for many towns with limited or no planning staff.

Actual examples of development's best practices are another excellent catalyst for change. Best practices provide an immediate way to compare experiences and to evaluate projects based on actual performance. They are often the most effective tools to persuade skeptical decision-makers and the public. The ability to showcase achievements and alternative practices through media and marketing may prove to be the most important tool for change. Both public agencies and developers could devote more time to disseminating their experiences and successes and make them readily available in tangible form, such as in three-dimensional drawings or models.

Subcommittees of the Commissions also recommended that local Boards of Health must document reasons for adopting any rules that exceed state requirements. They suggested that the state develop guidelines on wastewater treatment systems. Other subcommittees recommended that local permit fees be reevaluated to make sure they are only covering costs and are not a revenue generating item. They also suggested that road design and construction be simplified to reduce costs.⁵ Indeed, our survey indicates that few of the Massachusetts' jurisdictions surveyed have reduced their street width requirements, introduced more multifamily zones, but quite the reverse, some have even approved ordinances requiring larger lot frontages. From this study, it is clear that it is imperative to continue to scrutinize the impacts of development standards, such as street widths, right-of ways, and building setbacks in the construction of higher density developments and moderately priced housing. The Commonwealth of Massachusetts should evaluate federal land use policies, such as those associated with environmental regulations that hinder design changes to subdivision patterns, form and density.

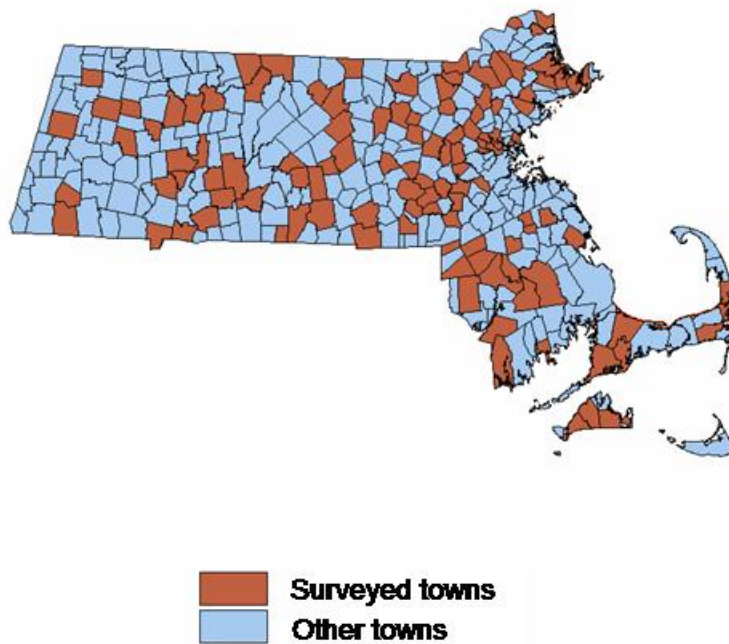
It is also necessary for the Commonwealth to address and provide mechanisms that effectively deal with regional needs, such as schools, open space, and infrastructure, that allow a development in one area to utilize the amenities of another development in order to avoid unnecessary duplication. Such measures will help eliminate unnecessary and costly improvement requirements from the developers and reduce the shifting of these costs to consumers.

While there are many steps to be taken on the road to land use and subdivision regulation reform, the study has one surprising result- that there is no strong evidence which correlates community income level to subdivision regulations in Massachusetts. Overall, Massachusetts' towns seem to be performing evenly. This is a positive sign showing an evenhanded approach to development and one that may debunk existing notions that higher income communities use regulations and the approval process as a mechanism for curbing development and as an exclusionary practice. This leaves us with the belief that towns and cities in Massachusetts are showing willingness to accept and diffuse innovation, and that change in the design and planning of subdivisions may allow public officials, together with agents of the development industry, to move beyond confrontation and into joint association for the benefit of housing and the community at large.

Appendix

A: Geographical Distribution of Massachusetts' Jurisdictions

Figure 3
Massachusetts' Jurisdictions Survey Sample



Jurisdictions

Abington Adams Agawam Andover Arlington Ashby Ashland Attleboro Belchertown Belmont Boxborough Boxford Burlington Cambridge Carlisle Charlton Chelmsford Chelsea Chilmark Conway Danvers Dedham Deerfield Douglas Dover Dracut Duxbury Eastham Easthampton Edgartown Essex Fairhaven Fall River Falmouth Gardner Gloucester Goshen Granby Groton Hadley Hamilton Hanover Harvard Harwich Holden Holland Holliston Hopkinton Hull Ipswich Lakeville Lancaster Lexington Lincoln Lowell Ludlow Mansfield Mashpee Medfield Medford Medway Mendon Merrimac Middleborough Milford Montague Monterey New Braintree New Marlborough Newburyport Norfolk North Andover North Brookfield Northampton Northborough Norton Orange Orleans Palmer Paxton Peabody Pittsfield Plainfield Plainville Princeton Raynham Reading Rehoboth Revere Royalston Salisbury Sandwich Sherborn Somerville Southampton Southborough Southwick Spencer Springfield Stow Sturbridge Sudbury

Sutton Taunton Warwick Watertown Wayland Wellesley West Bridgewater West
Tisbury Westminster Weston Westport Whitman Wilmington Windsor Worthington

B: Characteristics of Massachusetts Jurisdictions Surveyed

Table 14
Population Distribution of Massachusetts Jurisdictions
(Data based on returns; Source US Census 2000)

<i>Population</i>	<i>Number of Jurisdictions</i>	<i>Percent of Total</i>
Up to 999	8	7
1,000-6,999	46	39
7,000-19,999	32	27
20,000-99,999	28	24
100,000 and above	3	3
Total	117	100

- Lowest Population: 589
- Highest Population: 152,082
- Median Population: 7,900

Table 15
Distribution of Massachusetts Jurisdictions by Median Family Income 2000
(Data based on returns; Source: US Census 2000)

<i>Population</i>	<i>Number of Jurisdictions</i>	<i>Percent of Total</i>
Low	28	24
Moderate	31	27
Middle	25	22
High	31	27
Total	115	100

- Low: up to \$44,855
- Moderate: \$44,856-\$55,249
- Middle: \$55,250- \$68,391
- High: \$68,392 and above

- Lowest Median Family Income Jurisdiction: \$28,063
- Highest Median Family Income Jurisdiction: \$153,918
- Median Family Income: \$54,453

(Note that the median in our sample is higher than the state's – \$50, 502)

Endnotes

¹ Burns, LS and Mittelbach, FG, "Efficiency in the Housing Industry," 119-185 in *Housing and Economics -- the American Dilemma*, Stegman, M.A. (Ed.), 1968, 113

² Real Estate Research Corporation *The cost of Sprawl Executive Summary* 1974, 6

³ Most of the section is taken from *Subdivision Control: An Overview of the Subdivision Control Law, Commonwealth of Massachusetts* by Donald J. Schmidt Commonwealth of Massachusetts The Department of Housing and Community Development, 1998.

⁴ James M. Burgoyne. 2004. "Land Use Reform - Coming Soon to a Community Near You!" MA: Fletcher, Tilton & Whipple.

⁵ *Report of the Governor's Special Commission on Barriers to Housing Development*. Boston, MA: 2002.