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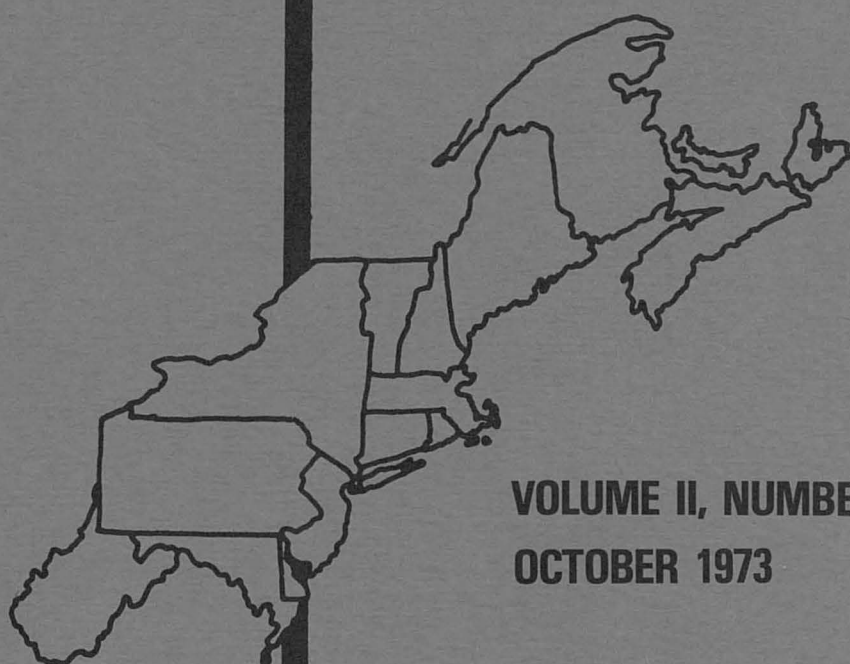
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Mobile Home Park Community Educational Service
Costs and Revenues in New Hampshire*

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Introduction

In communities where average family incomes are low relative to the costs of conventional housing - a common situation in New Hampshire - the services of adequate housing are, in effect, unavailable to many residents. If this service is to be available to low income residents, the public sector must provide public housing, or encourage private provision of low cost housing. Yet, instead of encouraging such housing, many New Hampshire communities ban or restrict the most common form of low cost housing - the mobile home.

Community officials are concerned about the adequate housing requirements for community development. Other things equal, they undoubtedly want the services of decent housing, like other community services, public and private, to be adequate and available to all. However, other things are not equal. In addition to providing a direct community service, housing also represents a source of demand for other services, and a source of property tax revenue to finance local public services. The restrictions and prohibitions placed on mobile homes reflect the fear that there is an imbalance between those two latter aspects of housing when it is in the form of a mobile home. In short, it is feared that the property tax revenues from mobile homes will not cover the costs of local public services which they require (the so called "fair share").

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Since, in New Hampshire, local public services are financed primarily by property taxes, families owning low cost housing, in this case a mobile home, by definition, pay a smaller absolute amount toward the financing of those services than families owning higher cost conventional housing. It does not necessarily follow, however, that the mobile home is not paying its "fair share". To determine that, one must compare the costs of services demanded by the typical mobile home household with the tax payments made by the typical mobile home household.

The services required by a household depend, in part, on the characteristics and composition of that household. An earlier report, Mobile Home Residents in New Hampshire [1] provided a fairly wide range of data on the socio-economic characteristics of New Hampshire mobile home households. The implications of some of the data for particular questions were noted, but no single specific problem was treated in the light of the findings. Rather, it was hoped that the primarily descriptive presentation would fill gaps in the information available to decision makers relevant to a wide range of questions.

The present paper explores the implications of the findings of the same study for the question of the probable ratio of school tax payments originating from a mobile home park to the costs of providing education for the school age population of that park. Specifically, it estimates that ratio for a hypothetical 100 unit mobile home park having the composition and characteristics of the New Hampshire mobile home park population. It uses survey findings regarding the age composition of this population to estimate the educational expenditures required by the park, and the findings regarding mobile home values and park assessments to estimate the school tax payments.

The 100 unit size for the park has been chosen merely for clarity of illustration. In essence, it is a way in which per unit figures can be converted to whole numbers in an obvious straightforward manner.

Education was chosen as the service to be examined for a number of reasons. One reason, and a point of some significance in and of itself, is that many other "public" services are provided by the mobile home park rather than the community at large. Education, of course, is provided by the larger community. Another reason is that the costs and revenues are more easily assignable to the sources of each for education than for most services. Finally, the mere fact that education is the major item in most local community budgets makes it the number one candidate for this study.

Although this paper is being presented to an audience of professional economists, the data and analysis upon which it is based were prepared primarily for local community officials. These officials are constrained in their analysis of community problems by limited time and technical resources. For this reason, the present analysis emphasizes computational techniques that can be readily employed in any local community by merely substituting the appropriate local data.

Costs

One of the most fundamental determinants of the amount of services required by a household is, of course, the size of the household, i.e., the number of persons in the household. A comparison of survey and census data indicates that mobile home households, particularly those located in parks, are smaller than New Hampshire households in general. Table 1 presents percentage distribution of households by number of members for all New Hampshire households, for the entire mobile home sample and for the in-park sample. Fifty-five percent of all mobile homes and 60 percent of those located in parks are one or two person households compared to 47 percent of all homes. The percentage of mobile home households with five or more members is less than half the percentage of all homes in that category, and the in-park percentage is less than one-third the percentage for all homes.

Table 1
Distribution of Households by Number of Persons per Household

Number of Persons	: : All Homes ^{1/} : N=225,378 :	Mobile Homes ^{2/} N=404	Mobile Homes ^{2/} Located in Parks N=201
	: : Percent :	Percent	Percent
One person.....	: 17.0	14.1	13.9
Two persons.....	: 29.7	41.4	46.3
Three persons.....	: 16.9	20.0	19.4
Four persons.....	: 15.2	14.4	14.4
Five or more persons	: 21.2	10.1	6.0
Total.....	: 100.0	100.0	100.0
Persons per household.....	: 3.1	2.7	2.6

^{1/} Sources: [3, Table 4] and [4, Table 16].

^{2/} Survey data.

The typically smaller household size implies that mobile home households may require fewer community services per household than the average requirements of all households. In the case of the particular service considered here, one would expect more school age children in a large family. Such speculation is not necessary, however, since the household requirements for education can be associated with the number of household members in a certain age range. Unfortunately, census data on the age

composition of all New Hampshire residents is divided into cohorts that do not correspond exactly to normal school ages. Therefore, for the sake of comparison between the entire New Hampshire population and the survey data on the mobile home population "school age" is approximated as age five to 19 inclusively. Table 2 presents these comparisons.

The percentage of all residents in the approximate school age range is more than two and one half times as large as that of all mobile home residents, and more than three times as large as that of in-park mobile home residents. From a static point of view the smaller percentages of mobile home residents in the high school age cohorts is also important because per student costs are greater for high schools than for elementary schools.

Table 2
Approximate School Population as a Percent of Total Population
for All New Hampshire Residents, Mobile Home Residents,
and In-Park Mobile Home Resident Populations

Age (in years)	All individuals <u>1/</u> (N=737,681)	Mobile home residents <u>2/</u> (N=1088)	In-Park Mobile Home Residents <u>2/</u> (N=513)
	Percent	Percent	Percent
5 to 9.....	10.3	8.5	6.0
14 to 14.....	9.9	3.0	1.9
15 to 19.....	9.2	4.7	1.3
Total.....	29.4	11.5	9.2

1/ Source: [5, Table 48].

2/ Survey data.

The above comparisons suggest that mobile home households may require less public expenditures on education than the typical New Hampshire household. If this is the case, then smaller school tax payments by mobile home households do not necessarily mean that mobile homes are not "paying their way". It is this apparent fact that the service requirements and the payments to support the services both vary in the same direction, that requires quantitative estimates of their relative size. Such estimates are necessary before anything very meaningful can be said about the popular hypothesis that mobile home parks are a burden on the larger community.

The estimation of public expenditure on education required by a 100 unit mobile home park can be made with a more proper specification of school age population than that required above for the comparisons with census data. Children ages six through 13 are usually in elementary school (grades one through eight), and the 14 through 17 year old age group are usually in high school. The number and percentage of mobile home park residents in these two age groups in our sample of 201 in-park households is as follows: 1/

	<u>Number</u>	<u>Percent</u>
Elementary	28	5.5
High School	<u>10</u>	<u>1.9</u>
Total	38	6.4

As might be expected from the large percentage of one and two member households in the mobile home population, a very small percentage of mobile home residents are school age.

The above data translates into the following number of school age children per household:

Elementary	.139
High School	<u>.049</u>
	.188

Therefore, our hypothetical 100 unit park displaying the typical composition of the New Hampshire mobile home park population should have approximately 19 school age children.

Average per student current expenditure on education in New Hampshire in 1971-72 was: 2/

Elementary	\$698.14
High School	\$928.00

1/ Approximately one-third of the school districts in New Hampshire have Junior High Schools. The grades included are seven through eight in some of those districts and seven through nine in others. Three of the school age children in the sample are in grades seven through eight, and three are in grade nine.

2/ For those districts having Junior High Schools, the per student expenditure of Junior High students was \$827.60.

Allocating all expenditures of school districts (including not only capital outlay, debt principal and interest payment, but such miscellaneous expenditure categories as "community activities") on a per student basis the cost becomes \$973.21 (disregarding cost differences for different grade levels).^{3/} Using this higher figure in the belief that local officials would consider it the relevant one (although economists might disagree), the total cost assignable to the mobile home park is \$18,490.99. The next section uses survey data to estimate the school tax revenue originating from this hypothetical park.^{4/}

Revenues and the Revenue/Cost Ratio

The school tax payments coming from the park depend, of course, on the assessed values of the mobile homes and the park itself, and the tax rate. The tax rate varies from community to community, so an average rate will be used. Unfortunately, assessment procedures also vary from community to community. However, the procedure to be used here is consistent with the State Tax Commission's unofficial "rule of thumb" for assessment of mobile homes. While this "rule of thumb" has no legal status and communities are, in no way, required to employ this method, it is an acceptable method available to any community wishing to use it.

In the year in which a mobile home is purchased, it is assessed at 85 percent of the purchase price. The 15 percent is deducted to reflect the value of the furnishings which are not taxed in New Hampshire. In following years, a depreciation rate of five percent per year is applied to the new assessed value with the total depreciation being limited to 25 percent of that value.

The survey data relevant to this procedure are the purchase price of mobile homes purchased new and the current age of mobile homes. The percent distribution of those homes purchased new by purchase price is:

Under \$5,000	7.1%
\$5,000 to \$9,999	80.9%
\$10,000 and over	<u>12.0%</u>
	100.0%

with an average purchase price of \$7,531.00. Data are not available on the new purchase price of homes in the sample which were purchased used

^{3/} Data on file at the New Hampshire State Department of Education, Concord, New Hampshire.

^{4/} This analysis deviates from strict marginal analysis of costs and revenues due partially to the difficulty of making meaningful estimates of the marginal magnitudes from available data. The more important reason, however, is the concern of community officials with "fair share" defined in terms of average total costs.

by the current owner. The above data should be fairly representative of the new purchase prices of the mobile homes typically occupied by New Hampshire mobile home park residents, however. Over 70 percent of the sample had purchased their homes new, and are thus included in this data.

The age distribution of mobile homes located in parks is as follows:

<u>Age</u>	<u>Percent</u>
1 - 3 years	50.8
4 - 6 years	27.8
7 years and over	21.4

with an average of 4.5 years.

Assuming that an age of 4.5 years places a home in its fifth assessment year, the assessed value calculated by the procedure outlined above for a mobile home of average price and age is as follows:

Purchase Price	\$7,531.00
Less 15%	<u>1,129.65</u>
New Assessed Value	\$6,401.35
Less 20% (5% a year for 4 years)	<u>\$1,280.27</u>
Assessed Value Fifth Year	<u>\$5,121.08</u>

Therefore, the expected total assessment for a 100 unit park having the composition typical of its New Hampshire mobile home park population is \$512,108.00.

An estimate of the assessed value of the park itself must be added to the above estimate of the assessed value of the homes to get the total base for the property taxes originating from the park. The assessed value of the park obviously depends on other factors in addition to the number of units. Land values vary, the number of acres for a given number of units depends upon the density, and the facilities of parks vary, to name a few. Therefore, one could not expect to explain assessed valuation of the park entirely in terms of the explanatory variable we are controlling, i.e., number of units. However, in regression analysis of survey data the number of units is the most important single explanatory variable. The r^2 is .57 and its simple regression coefficients of 843.86 has a t-ratio of 7.04, significant at the 99 percent level. Recognizing that there are other important influences on assessed value, a tentative estimate of the

assessed value of the 100 unit park is thus placed at \$84,386.00. This brings the total estimated assessed value to \$596,494.00.

The 1971 average property tax rate in New Hampshire was \$40.30 per thousand assessed valuation.^{5/} The average school tax rate is not available at this writing, but in recent years it has been slightly under two-thirds of the total rate. Therefore, using a figure of \$26.00 per thousand should not overstate it. The most recent figure available is for 1969 when it was \$26.81 per thousand ^{6/}, therefore the \$26.00 estimate should understate the tax payment, if anything.

With an estimated assessed valuation of \$596,494 and a school tax rate of \$26.00 per thousand, the estimated school tax payments by park residents and owners is \$15,508.84, with \$13,314.81 being paid by the residents. The ratio of school tax payments to education costs allocated to the park in the previous section is thus - \$15,508.84/18,490.99 or .84. If the taxes on the park itself are excluded, which they should not be, the ratio is .72.

Conclusions

In essence, this paper treats the State of New Hampshire as a local community having a school tax rate equal to the average for the state, education expenditure per student equal to the average for the state, and a mobile home park population with the composition and characteristics of the mobile home park population of the state. For the "state-community", it is estimated that school tax payments by park residents and owners cover about 84 percent of the education costs assignable to the park.

The question of whether 84 percent coverage is a "fair share" would seem to depend on the school tax/education cost ratio for other residential property. No direct estimate of that ratio has been made to the authors' knowledge, but some relevant information is available. Although the mobile home ratio is based on total costs, local school taxes in total do not cover all education costs. Local taxes are by far the major source of revenue for school districts, but the 1970-1971 breakdown of sources shows local taxation providing only 72.9 percent of total school district revenue. ^{7/} In addition, commercial property pays part of that portion of costs covered by local school taxes. Tax Commission reports for 1971 show "land and building (excluding factory building)" accounting for 87 percent

^{5/} Data on file at the New Hampshire State Tax Commission, Concord, New Hampshire.

^{6/} Data on file at the New Hampshire State Department of Education, Concord New Hampshire.

^{7/} Data on file at the New Hampshire State Department of Education, Concord New Hampshire.

of the assessed value in the state. 8/ Of course, that classification still includes much non-residential property. The most recent available figure for residential property alone is provided by the 1967 Census of Governments for the year 1966. At that time residential property accounted for only 69.6 percent of the total gross assessed property in New Hampshire [2, Table 4].

In view of the above considerations, the estimated school tax payments of the mobile home park owners and residents would appear to constitute at least their "fair share". It is not suggested, however, that the estimated ratio is directly applicable to any proposed or existing park. Obviously specific cases in specific communities may produce ratios that vary greatly in either direction from that of the "state-community". What the finding does suggest is that it is unwise to make a priori judgments that mobile home parks are a burden on a larger community.

The estimated ratio is provided not as a substitute, but rather, hopefully, as an impetus for studies in individual communities. The implicit assumption made in many communities that the community service cost per household is the same for mobile homes as for conventional housing seems to be in error for the mobile home park population of the state as a whole. It may also be an erroneous assumption for individual communities. If so, smaller absolute tax payments do not necessarily mean that mobile home parks represent a net cost to the community. The supposed conflict between the objectives of adequate low cost housing and adequate financing of other community services may not exist.

8/ Data on file at the New Hampshire State Tax Commission, Concord, New Hampshire.

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