THE ECONOMICS OF HOUSING FAMILIES

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INTRODUCTION

Spending among households with children has a positive impact on economic activity and generates significant tax revenues for cities and towns in Rhode Island. Quite simply, households with children are good for the statewide and local economies.

Along with our almost non-existent population growth since 2000, Rhode Island has seen a marked decrease in our school-age population (0-17 years). This loss of population resulted in decreased economic activity statewide and an increase in average spending per student enrolled in K-12 public schools locally.[1]

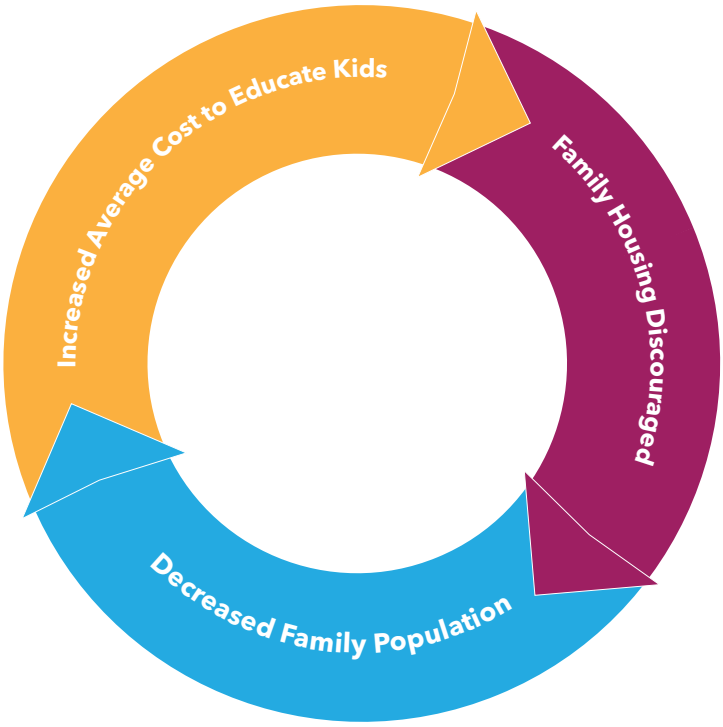
The increase in average spending has placed additional budgetary burdens on our local communities resulting in many municipalities working to reduce or avoid additional growth in their student population. While in the short term this solution seems logical, the longterm consequence of this policy is bad for Rhode Island's overall economy and actually works against efforts to reduce costs to educate Rhode Island children.

Discouraging development of family housing means fewer families to support our state's economy and ultimately higher costs for municipalities to educate their school-age population.

Now is the time to break this negative cycle.

As the findings in this report indicate, by encouraging development of family housing – including housing for low-income families – municipalities would actually see benefits to their local economy via increased spending on local businesses and services. A growth in housing production for families would also generate significant tax revenue for the state government (e.g. sales tax, income tax) and for local cities and towns (e.g. property taxes). Finally, attracting families with children would increase the student population and reduce the average cost per pupil in local districts.

THE NEGATIVE CYCLE OF DISCOURAGED FAMILY HOUSING



PART ONE:
MEASURING THE ECONOMIC IMPACT OF FAMILY HOUSEHOLDS IN RHODE ISLAND

Economic modeling tools are commonly used to measure the "multiplier effect" that various industries have on local and state economies, but what about measuring the economic impact of a certain population? This study uses IMPLAN to determine the economic impact that spending on child related expenses has on Rhode Island's economy. IMPLAN (IMpact analysis for PLANning) is an input-output impact modeling system that focuses on the intersections among sectors in the economy affected by investments and spending.

When households with children spend money to support their children, they do so locally. This spending, in turn, proves to be an economic benefit to local businesses in cities and towns throughout the state. Some child-related spending with local businesses and service providers include housing, transportation, food, education, and childcare.

Direct impact: Jobs, earnings, and output created by child household spending.

Indirect impact: Jobs, earnings, and output created throughout the supply chain of child household spending on housing, retail, education, health care, and transportation.

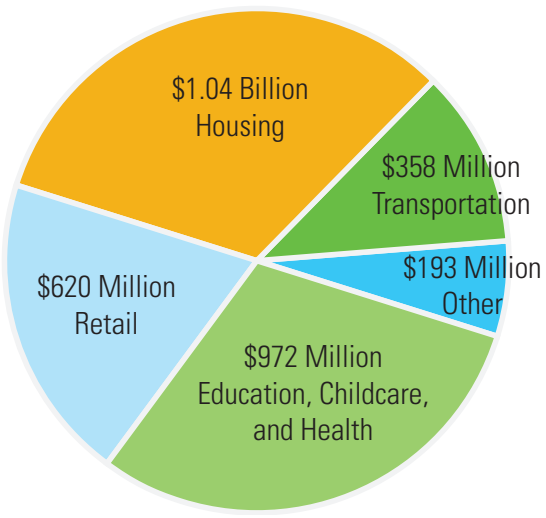
Induced effect: Jobs, earnings, and output created by household spending of income earned either directly or indirectly from child household spending on housing, retail, education and health care, and transportation.

SPENDING FOR HOUSEHOLDS WITH CHILDREN

In 2013, Rhode Island spending for households with school-age children was approximately $3.2 billion.

Most child-rearing spending happens locally–for instance housing, childcare, education, transportation, and food are usually incurred with local businesses and service providers. Therefore, this $3.2 billion in spending multiplied through our economy and had a positive impact on business activity in the city and towns where children live.

$3.2 Billion Total Spending in 2013[2]



SPENDING FOR HOUSEHOLDS WITH CHILDREN→ECONOMIC BENEFITS REALIZED[3]

Using IMPLAN to measure the multiplier effect, the study showed that in 2013, the $3.2 billion in spending for households with school-age children:

- Created **$4.2 billion in output** across Rhode Island's economy, representing about **8 percent of the state's Gross Domestic Product**.
- Generated **$1.7 billion in income** for households.
- Created **$179.9 million in commercial and industrial taxes** and **$40 million in household taxes and fees** for local and state governments. Accruals of tax revenue were evenly distributed between the state government and local cities and towns.
- Supported **45,793 full-time equivalent (FTE) jobs** in Rhode Island. The majority of the jobs created were in the service sector (35,488), followed by trade, transportation, information and public utilities (6,932), construction (3,092), and others (281).

DECREASED POPULATION→WEAKENED ECONOMIC ACTIVITY[4]

Changes in population and households can have a direct impact on economic activity. For example, an increase in population helps to support spending on local businesses. In contrast, the loss of households means reduced household spending on local businesses and services.

In Rhode Island, population growth over the past decade has been nearly static with an addition of just over 3,000 persons since 2000. The number of households with children have declined while households without children are on the rise. The reduction in the number of households with children meant that the population aged 0-17 in Rhode Island decreased by 35,417 from 2000-2013.[5]

Using IMPLAN, it is possible to measure how this reduction affected spending, employment, and taxes and fees for municipalities and the state. Holding all other cost and demographic variables constant, the authors of the study estimate this reduction in Rhode Island's school-age people has meant:

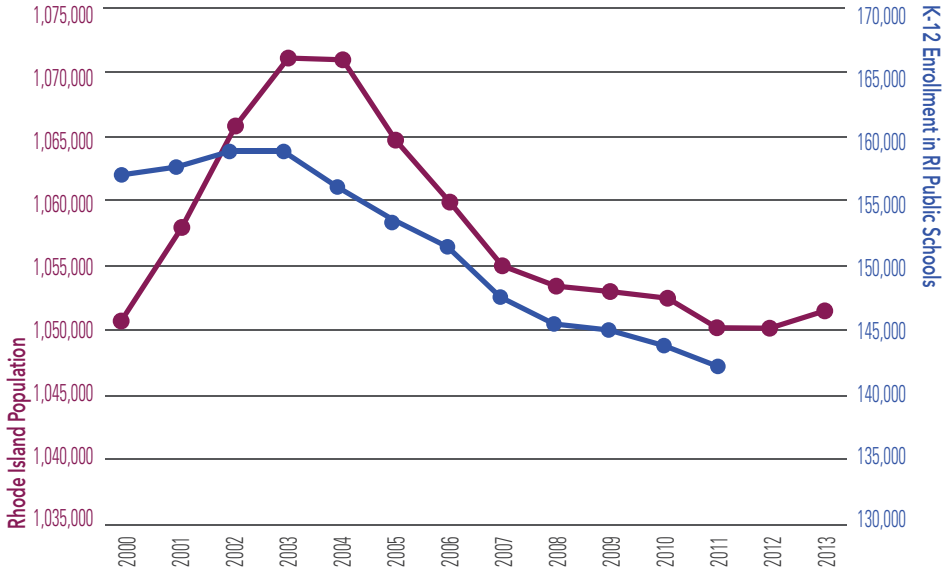
- Spending by households with children was **reduced by $490 million**, or a **$646 million reduction in the state's GDP**.
- Household **earnings were reduced by $262 million.**
- **Commercial and industrial tax revenues reduced by $27.7 million** and **personal income and property taxes reduced by $6.2 million**. These figures include tax revenues for the local and state governments.
- A **loss of 7,045 FTE jobs.**

PART TWO:
SPENDING ON PUBLIC K-12 EDUCATION IN RHODE ISLAND

TRENDS IN RHODE ISLAND'S SCHOOL-AGE POPULATION

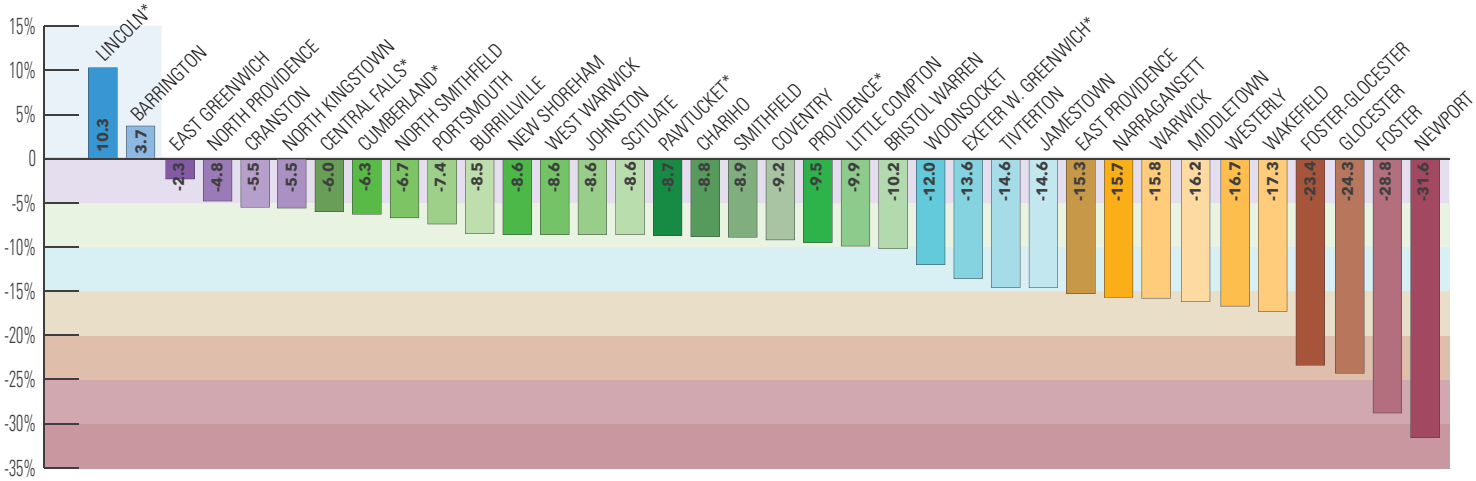
The size of the school-age population is linked to overall population trends in a state. Rhode Island's population has seen a decline since 2003 and simultaneously, there has been decrease in K-12 enrollment throughout the state.

POPULATION AND K-12 PUBLIC SCHOOL ENROLLMENT IN RHODE ISLAND, 2000-2013[6]



From 2003 to 2013, 26 out of Rhode Island's 39 municipalities lost population. From 2003 to 2011, K-12 enrollment declined in 34 out of 36 regular and regional school districts. The number of students enrolled in public elementary and secondary schools dropped from 159,375 in 2003 to 142,300 in 2011, a decrease of 10.7 percent. Lincoln and Barrington school districts were the exception and saw increases in the number of students enrolled in their school districts.

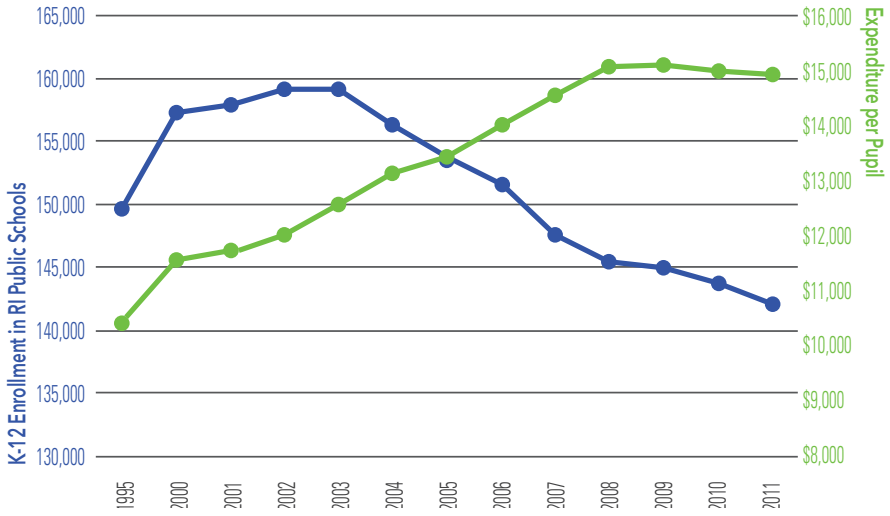
PERCENT CHANGE IN PUBLIC SCHOOL ENROLLMENT 2003-2011[7]



*Combined all school districts within a city

The fixed costs associated with maintaining school infrastructure coupled with decreased student population has meant greater costs per pupil for municipalities. While the student population has declined in Rhode Island, the average inflation-adjusted cost per student enrolled in Rhode Island K-12 public schools increased from $11,762 in 2001 to $14,948 in 2011, a 27 percent increase. Expenditures per pupil vary greatly across the state's school districts. As of 2011, expenditure per pupil was $12,037 in Cumberland and $13,926 in Barrington compared to $19,467 in Central Falls and $22,059 in Newport.

ENROLLMENT AND EXPENDITURE PER PUPIL, RHODE ISLAND, 1995-2011[8]



ECONOMIES OF SCALE IN RHODE ISLAND PUBLIC SCHOOLS

When researchers looked at average costs as compared to enrollment figures for Rhode Island's public schools over time and across school districts, there was strong evidence of economies of scale. "Economies of scale" for school systems refer to the reduction in cost per student when enrollment increases. Under economies of scale it would cost more to offer the same level of educational services in smaller school districts compared with larger school districts. On the other extreme, "diseconomies of scale" refers to the increase in cost to deliver educational service when there are too many enrolled students.

Data analysis shows that the size of Rhode Island's school districts are currently economically inefficient and increasing the size of the student population could reduce per pupil costs of K-12 educational services. A 2001-2011 panel study of the cost structure of Rhode Island school districts implies that a ten percent growth in total number of students is associated with a one percent decrease in the cost per pupil. The research shows that Rhode Island school districts could grow to 30,000 students before reaching a level of diseconomies of scale.[9]

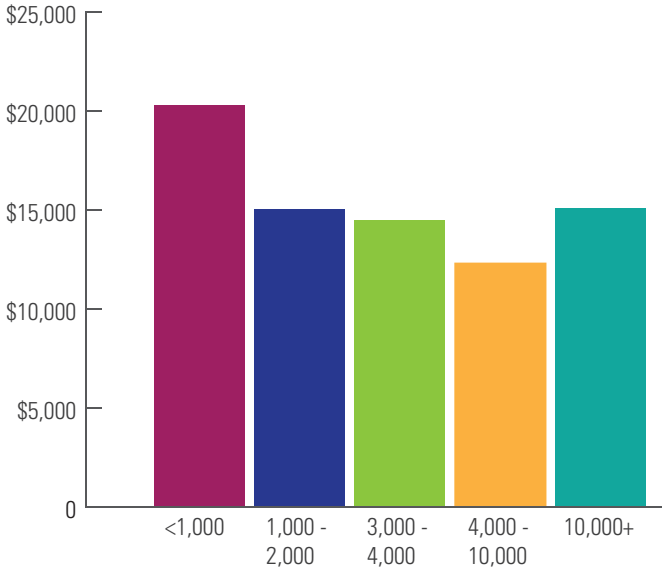
FUNDING THE COST OF PUBLIC SCHOOL EDUCATION IN RHODE ISLAND

The high cost of providing education in Rhode Island requires administrators to seek innovative ways to improve the efficiency and reduce costs to deliver educational services in the state. Even with the knowledge of economies of scale in Rhode Island public schools, developing an effective funding plan that could take advantage of these economies of scale is difficult. Such a plan would have to take into account socioeconomic factors and consider structural differences among school districts.

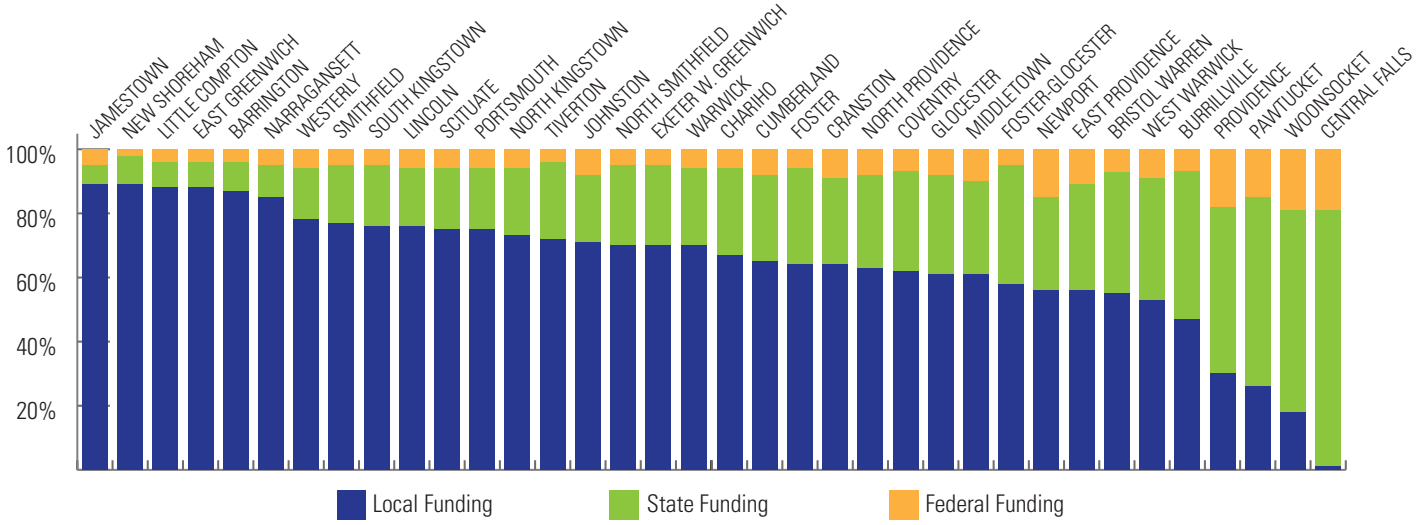
For example, it is well documented that additional academic supports are often necessary to help children living in poverty succeed in school.[10] The state's funding formula already takes this into account and gives additional funding for students living in poverty. Because of this additional state aid, local cities and towns do not face additional costs to educate children of disadvantaged socioeconomic background compared to the costs of educating children from middle and upper classes.

An analysis of school spending statewide also shows that while socioeconomic conditions are an important factor in educational costs, it is the staff composition, compensation scheme and school size that accounts for most of the variations in expenditure per pupil across school districts in Rhode Island. In fact, the per pupil cost of K-12 public education in Rhode Island is higher in smaller school districts than in larger school districts. Compensation to both instructional and non-instructional staff is the single most important driver of the per pupil cost of K-12 education throughout the state.[11]

AVERAGE SPENDING PER STUDENT AND SCHOOL ENROLLMENT, 2011[12]



SHARE OF EDUCATION REVENUE BY SOURCE 2011[13]



PART THREE:
POLICY IMPLICATIONS FOR RHODE ISLAND

This report shows that spending among households with children has a positive impact on economic activity and generates significant tax revenues for cities and towns in Rhode Island. **Quite simply, the state needs to retain and attract families with children in order to have a vibrant and thriving economy,** but the costs and benefits of attracting and retaining families with children are split unevenly between the state government and local cities and towns. State government accrues more of the tax revenue generated by child-rearing related spending through sales taxes, income taxes, and corporate taxes. And while local cities and towns benefit from property taxes and fees associated with development, the expenses associated with K-12 education still falls mostly on the local municipality.

In essence, **because local municipalities still struggle to pay for the costs associated with educating children, many work against state efforts to grow this important population by hindering or preventing the development of family housing.** If policymakers want to grow and strengthen Rhode Island's economy, which in turn will benefit our local economies, they will need a multi-track approach to incentivize the development of housing for families with children.

STATEWIDE: focus on reducing local costs to educate K-12 public school students.

The state already allocates more school aid through its school funding formula to districts with a limited ability to generate revenues and with a higher density of students living in poverty. Policy makers must also consider optimizing K-12 enrollment through the local education consortiums and consolidation when feasible.

- Engage in efforts to align the size of school districts to levels that take advantage of economies of scale.
- Implement additional financial support for municipalities to pay for K-12 education either by increasing the existing funding formula or through the creation of financial incentives for schools districts that choose to increase their size or consolidate with other districts.

LOCALLY: focus on development of higher density housing.

Municipalities must recognize that the future of our state's economy depends on a thriving family household population and encourage housing development aimed at attracting families with children. Preventing growth of families locally, has already cost millions in state and local tax revenues.

- Increase the student population and contribute to reduced average costs per pupil.
- Recognize that state aid mitigates costs of educating children, particularly students with disadvantaged socio-economic backgrounds.
- Consider local education consortiums or consolidation with nearby school districts when feasible.

ABOUT THIS REPORT

The Rhode Island Builders Association (RIBA), Associated General Contractors (AGC) and BUILD RI commissioned and funded this report. HousingWorks RI at Roger Williams University prepared this brief based on the research titled *THE ECONOMIC IMPACT OF SCHOOL-AGE POPULATION LOSS ON RHODE ISLAND'S ECONOMY* by Edinaldo Tebaldi, Ph.D., Associate Professor of Economics, and Jongsung Kim, Ph.D., Professor of Economics, at the Center for Global and Regional Economic Studies at Bryant University.

To see the full research report: *THE ECONOMIC IMPACT OF SCHOOL-AGE POPULATION LOSS ON RHODE ISLAND'S ECONOMY,* visit www.ribuilders.org.

REFERENCES

1) Tebaldi, Edinaldo and Jongsung Kim. "The Economic Impact of School-Age Population Loss on Rhode Island's Economy". The Center for Global and Regional Economic Studies at Bryant University. January 2015.

2) Ibid.

3) IMPLAN analysis by Tebaldi and Kim in "The Economic Impact of School-Age Population Loss on Rhode Island's Economy". The Center for Global and Regional Economic Studies at Bryant University. January 2015.

4) Ibid.

5) Tebaldi, Edinaldo and Jongsung Kim. "The Economic Impact of School-Age Population Loss on Rhode Island's Economy". The Center for Global and Regional Economic Studies at Bryant University. January 2015.

6) HousingWorks RI at Roger Williams University analysis of Tebaldi and Kim, January 2015.

7) Tebaldi and Kim, "The Economic Impact of School-Age Population Loss on Rhode Island's Economy". The Center for Global and Regional Economic Studies at Bryant University. January 2015.

8) Ibid.

9) Tebaldi and Kim, "The Economic Impact of School-Age Population Loss on Rhode Island's Economy". The Center for Global and Regional Economic Studies at Bryant University. January 2015.

10) Downes and Pogue, 1994;

11) Tebaldi and Kim, "The Economic Impact of School-Age Population Loss on Rhode Island's Economy". The Center for Global and Regional Economic Studies at Bryant University. January 2015.

12) Ibid.

13) HousingWorks RI at Roger Williams University analysis of U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Survey of Local Government Finances, School Systems (F-33)", 2010-11 (FY 2011) v.1a. Downloaded May 2015.