ECONOMIC ANALYSIS OF THE IMPACT OF NEXT GENERATION CONNECTICUT ON THE TOWN OF MANSFIELD

FINAL REPORT – October 8, 2015

FINAL REPORT SUBMITTED TO:
Town of Mansfield
University of Connecticut

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TABLE OF CONTENTS

Table of Contents 1

1. Introduction 10

1.1. Purpose of Report 10
1.2. Current Town/Gown Context 10
1.3. NextGenCT 10
1.4. Implications for the Town 10
1.5. Organization of Report 11
1.6. Research Overview 12
1.7. About the Consulting Team 13

2. UCONN 2000 and UCONN 21st Century 14

2.1. Section Overview 14
2.2. Research Overview 15
2.3. About UCONN 2000 and UCONN 21st Century 16
2.4. Economic Impacts from UCONN 2000 and UCONN 21st Century 18
2.5. Fiscal Impacts from UCONN 2000 and UCONN 21st Century 24
2.6. Expenditure Impact Research Overview 29
2.7. Historical Growth in TOwn Population and Expenditures 34
2.8. Initial Classification of Expenditure Categories 36
2.9. Service Expenditure Impacts from UCONN 2000 and UCONN 21st Century 39
2.9.1. General Government 39
2.9.2. Public Safety 40
2.9.3. Public Works 43
2.9.4. Community Services 45
2.9.5. Community Development 47
2.9.6. Townwide Expenditures 49
2.9.7. Capital Expenditures 50
2.10. Education Expenditure Impacts from UCONN 2000 and UCONN 21st Century 51
2.10.1. Pre-K to 8 Education 52
2.10.2. 9-12 Education 53
2.11. Infrastructure Expenditure Impacts from UCONN 2000 and UCONN 21st Century 54
2.12. Summary and Implications 58

3. Economic and Fiscal Benefits from NextGenCT 61

3.1. Overview 61
3.2. About NextGenCT 61
3.3. Local Economic Gains 65
3.4. Local Fiscal Gains 68
3.5. Summary and Implications 72

4. Service, Education, and Infrastructure Impacts from NextGenCT 73

4.1. Overview 73
4.2. Expenditure Impact Methodology 73
4.3. Service Expenditure Impacts 76
4.3.1. General Government 76
4.3.2. Public Safety 76
4.3.3. Public Works 78
4.3.4. Community Services 78
4.3.5. Community Development 79
4.3.6. Townwide Expenditures 80
4.3.7. Capital Expenditures 80
4.4. Education Expenditure Impacts 81
4.4.1. Pre-K to 8 Education 81
4.4.2. 9 to 12 Education 82
4.5. Infrastructure Expenditure Impacts 83
4.6. Summary and Implications 89

5. Partnership and Shared Service Opportunities from NextGenCT 91

5.1. Overview 91
5.2. Approach 91
5.3. Context 91
5.4. Recommendations 94
5.5. Summary 95

6. Intergovernmental Revenue Impacts from NextGenCT 96

6.1. Overview 96
6.2. Intergovernmental Revenues in the State of Connecticut 96
6.3. State Payment in Lieu of Taxes (PILOT) 97
6.4. New PILOT Legislation 104
6.5. State Education Aid 107
6.6. Summary and Implications 112

7. Local Budget Implications of NextGenCT 114

7.1. Overview 114
7.2. Budget Model Overview 114
7.3. Budget Model Content 114
7.4. NextGenCT Impacts – Service Expenditures 116
7.5. NextGenCT Impacts: Education Expenditures 117
7.5.1. Pre-K to 8 Expenditures 117
7.5.2. 9-12 Expenditures 117

8. Conclusion 118

Appendix A – Interviews and Meetings Conducted A-1

Appendix B – Economic and Fiscal Impact Methodology A-5

Appendix C – Nominal Per-Year Capital Investment by the University of Connecticut in the Town of Mansfield from 1996 to 2014 ..... A-8

Appendix D – Share-Down Proportions of County-Level Economic Impacts from the University of Connecticut to Economic Impacts within the Town of Mansfield A-9

Appendix E – Estimated Spending by University of Connecticut Students in the Town of Mansfield in 1995 and in 2014 ..... A-11

Appendix F – Additional Detail on the Research Approach Used to Evaluate Partnership Opportunities A-14

Appendix G – Additional Detail on the Current State of Partnerships between the University of Connecticut and the Town of Mansfield A-16

Appendix H – Additional Detail on Recommended Partnerships between the University of Connecticut and the Town of Mansfield That Can Result from the Implementation of NextGenCT A-24

EXECUTIVE SUMMARY

This analysis of the potential impact on the Town of Mansfield from the implementation of the University of Connecticut's *Next Generation Connecticut* Initiative (**NextGenCT**) includes a quantification of the economic and fiscal benefits that are anticipated to accrue to the Town as well as an enumeration of any net new Town service, education, and infrastructure expenditures that will result from the Initiative. This quantification employs available data from the Town and UCONN, as well as conservative assumptions informed by discussions with Town and UCONN staff and by independent research.

NextGenCT is a 10-year, $1.54 billion plan to enhance UCONN's capacity as an economic engine and workforce driver for the State of Connecticut. It builds from two past UCONN initiatives, UCONN 2000 and UCONN 21st Century, which together represented nearly $2 billion in investment between 1995 and 2014 and which resulted in significant increases in UCONN enrollment and staffing levels at the Storrs Campus.

A historical look at impacts from **UCONN 2000** and **UCONN 21st Century** aids in understanding what impacts might result from the implementation of NextGenCT. These two initiatives produced significant economic and fiscal benefits for the Town (see Tables ES.1 and ES.2).

TABLE ES.1 – SUMMARY OF ESTIMATED ECONOMIC IMPACT FROM UCONN 2000 AND UCONN 21ST CENTURY ON THE TOWN OF MANSFIELD FROM 1996 TO 2014

Impact Category	Estimated Increase in UCONN Activity Level in Mansfield, 1996-2014	Estimated Town Annual Economic Impact	Estimated Increase in Annual Employment Impact
Capital Investment	$1.9 billion total	$103M	570 jobs
Operating Expenditures	$445 million per year	$525M	1,040 jobs
Student Spending	$42 million per year	$28M	215 jobs
TOTAL		**$656M**	**1,825 jobs**

Source: Econsult Solutions

TABLE ES.2 – SUMMARY OF ESTIMATED FISCAL IMPACT FROM UCONN 2000 AND UCONN 21ST CENTURY ON THE TOWN OF MANSFIELD FROM 1996 TO 2014

Fiscal Impact Category	Estimated Increase in Assessed Value (in $ 2014)	Revenue Implications	Estimated Annual Revenue Impact
Property Tax Base from Student Apartment Complexes and new Subdivisions	$47 million	Increase in Property Tax collections	$1.29M
Storrs Center	$78 million	Increase in Property tax collection net of Town expenses/abatements	$0.17M
State-Owned Property (PILOT)	$629 million	Increase in State PILOT payment	$3.74M
TOTAL			**$5.20M**

Source: Econsult Solutions

Town expenditures for services and education have also increased over the past two decades, with each growing approximately 30 percent on an inflation-adjusted basis. However, a careful analysis of category by category expenditures reveals that this growth is driven not only by population growth, but also by cost per capita increases above and beyond inflation. Removing the effects of cost growth and accounting for changes in service quality, it is estimated that **UCONN population growth meant approximately $1.07 million more in Town expenditures in 2014 than in 1996**. On the education expenditure side, it is estimated that UCONN growth has meant approximately 150 more students from pre-K to grade 12, leading to **an estimated increase in education expenditures of $460,000 from 1996 to 2014**. Together, **service and education expenditures are estimated to have increased by $1.53 million annually** (see Table ES.3).

TABLE ES.3 – SUMMARY OF ESTIMATED SERVICE AND EDUCATION EXPENDITURE IMPACT FROM UCONN 2000 AND UCONN 21ST CENTURY ON THE TOWN OF MANSFIELD FROM 1996 TO 2014

Service Expenditure Category	Estimated Annual Cost Increase Associated w/ UCONN Growth	Estimated Cost per new UCONN Population
General Government	$55,000	$8
Public Safety	$481,000	$71
Public Works	$118,000	$17
Community Services	$67,000	$10
Community Development	$161,000	$24
Townwide Expenditures	$184,000	$27
Service Expenditure Total	**$1,066,000**	
Education Expenditure Category	**Estimated Annual Cost Increase Associated with UCONN Growth ($M)**	**Estimated Cost per new UCONN Household**
Pre K to 8	$228,000	$383
9 to 12	$235,000	$1,822
Education Expenditure Total	**$463,000**	
Education + Service Expenditure Total	**$1,529,000**	

Source: Econsult Solutions

The implementation of NextGenCT is anticipated to represent a significant amount of capital investment in the Town, and may also lead to higher ongoing activity levels within the Town. This will have the effect of producing economic and fiscal benefits for the Town, and may also result in net new Town expenditures:[1]

1) There will be significant economic benefits from the capital investments contemplated in NextGenCT, and economic gains from ongoing operations and student spending will depend on how much UCONN grows as a result of NextGenCT and how much of that growth is captured within the Town (see Table ES.4).

2) Using the same methodological approach as employed to estimate the expenditure impact of UCONN growth from UCONN 2000 and UCONN 21st Century, it is estimated that NextGenCT will grow service expenditures by $200,000 to $910,000, base capital expenditures by $25,000 to $115,000, and

[1] Note that all projections of NextGenCT impact in this report are based on two scenarios for university growth detailed in UCONN's 2015-2035 Draft Campus Master Plan: one which envisions an increase of 1,000 students and one which envisions an increase of 5,000 students over current levels. These scenarios are utilized purely for planning purposes, and their inclusion in this analysis should not be interpreted as a prediction of the actual level of campus growth over the next decade, which is unknown at this time (see Section 3.2 for further description).

education expenditures by $140,000 to $550,000, for a total impact ranging from $360,000 to $1.55 million (see Table ES.5). Actual impacts will depend in part on how much NextGenCT impacts UCONN in terms of student enrollment and faculty/staff headcount.

TABLE ES.4 – SUMMARY OF ESTIMATED ECONOMIC GAINS FROM THE IMPLEMENTATION OF NEXTGENCT ON THE TOWN OF MANSFIELD FROM 2015 TO 2024

Impact Category	Estimated Economic Gains
Capital Investment	$1.44 billion in expenditure impact, supporting 800 jobs per year
Operating Expenditures	$70 million to $420 million in expenditure impact, supporting 125 to 1,500 jobs per year
Student Spending	$6 million to $14 million in expenditure impact, supporting 30 to 90 jobs per year

Source: Econsult Solutions

TABLE ES.5 – SUMMARY OF ESTIMATED SERVICE, BASE CAPITAL AND EDUCATION EXPENDITURE IMPACT FROM NEXTGENCT ON THE TOWN OF MANSFIELD BETWEEN 2014 AND 2024

Service Expenditure Category	Est. Range of Increase in Annual Operating & Base Capital Expenditures from UCONN Growth
General Government	$9,000 - $41,000
Public Safety	$96,000 - $431,000
Public Works	$21,000 - $93,000
Community Services	$10,000 - $47,000
Community Development	$25,000 - $113,000
Townwide Expenditures	$37,000 - $165,000
Service Expenditure Total	**$202,000 - $910,000**
Capital: Base Needs	**$26,000 - $116,000**
Education Expenditure Category	**Est. Range of Increase in Annual Education Expenditures from UCONN Growth**
Pre K to 8	$26,000 - $101,000
9 to 12	$114,000 - $447,000
Education Expenditure Total	**$140,000 - $549,000**
Education + Service + Capital Expenditure Total	**$363,000 - $1,554,000**

Source: Econsult Solutions

In addition to quantifying Town revenue and Town expenditure implications from past and future UCONN initiatives, this analysis also concerned itself with three related issues:

1) A high-level exploration of **partnership opportunities** between the Town and UCONN that emerge from the successful implementation of NextGenCT and that build from the strong working relationship currently in place. **Transportation**, **public safety**, and **economic development** represent three particularly promising areas for considering collaborative efforts (see Table ES.6).

TABLE ES.6 – SUGGESTED PARTNERSHIP EFFORTS BETWEEN THE TOWN OF MANSFIELD AND THE UNIVERSITY OF CONNECTICUT IN RESPONSE TO THE IMPLEMENTATION OF NEXTGENCT

Partnership Area	Areas of Focus
Transportation and Infrastructure	• Coordinate transportation infrastructure plans • Share transit/bicycle/pedestrian data • Synchronize parking fee and enforcement policies • Coordinate maintenance and investment at edges of campus • Explore shared regional sewer and water service agreements
Public Safety	• Consider shared facilities and staffing • Track and share information on student-generated police calls • Formalize collaborative arrangements for specific areas and times of high need (e.g. special events, party "seasons")
Economic Development	• Synchronize strategy, planning, and investment efforts • Determine together where Mansfield does and does not claim a locational advantage for spinoff activity, and prepare accordingly • Co-conceive some type of incubator facility, including co-working space and dedicated programming

Source: Econsult Solutions

2) The impact of NextGenCT on **payments by the State to the Town**. The State makes a payment to each locality based on a proportion of assessed value of State-owned land within its boundaries, so the significant capital investments contemplated under NextGenCT would logically yield a larger payment from the State to the Town. Actual amounts will depend on future decisions by the State regarding the level of investment in municipal reimbursement and the implementation of a new formula for reimbursement, and thus are ultimately impossible to predict. Based on available benchmarks, it is preliminarily estimated that the Town could see its **State PILOT payment increase by as little as $0.6 million or as much as $4.1 million per year** as a result of the capital investment associated with NextGenCT.

3) A budget model to be used by the Town to **translate NextGenCT activity into its commensurate effect on Town operating expenditures**. A **user-friendly interactive budget model** has been designed for use by the Town in incorporating historical data and revised projections on NextGenCT into its operating budget process.

The ultimate size of the economic gains and expenditure increases will depend in part on what level of growth NextGenCT will produce in terms of increases in student enrollment, faculty/staff headcount, and economic development spin-off, which is unknown at this time. It will also depend in part on **how much the Town chooses to capture the net new demand for residential space and commercial activity generated by that growth**.

The experience of the past two decades suggests that **the economic gains can be larger than the expenditure increases**, particularly if the newly instituted State PILOT payment formula proves favorable to the Town over time and allows it to capture revenue from assessed value growth from UCONN's capital investment on its campus. However, the experience of the past two decades also suggests that the Town's service and education costs have risen due to cost factors beyond inflation and population growth, and that the Town's reliance on State funding as such a significant component of its budget can be problematic given its lack of control over this funding source. Therefore, the economic and fiscal implications of NextGenCT are best viewed not as isolated on an accounting ledger, but as connected to the broader long-term strategy for the Town and its approach to generating sufficient revenue to maintain and enhance quality of life.

This analysis of the implication of historic University growth suggests that if the Town is able to continue to capture a similar proportion of population and economic activity resulting from this growth, it may be able to generate a level of local property tax base growth commensurate with its growing service and education costs. Doing so, however, may require **Town investments and policy choices to position the Town to capitalize on growth in demand catalyzed by NextGenCT for additional residential, retail, and innovation space**. This is consistent with the Town's vision for smart growth, as articulated in its recently published *Mansfield Tomorrow* plan, which envisions a strategy that both respects the Town's rural character and accommodates growth in selected areas to enhance the Town's ability to generate revenues at the local level.

The example of **Storrs Center** is instructive. Made possible by increased demand for residential space and commercial activity as a result of growth by UCONN, Storrs Center is a mixed-use development created through a partnership between the Town and the University that capitalizes on proximity to campus. Storrs Center represents a capturing of UCONN-generated growth (and the attendant economic activity and property tax revenue gains) within Town boundaries without disturbing the Town's overall character. The Town will need to determine whether and where to make similar infrastructure investments and planning decisions to accommodate additional UCONN growth, in order to stabilize and expand its tax base to offset rising service and education costs.

1. INTRODUCTION

1.1. PURPOSE OF REPORT

The Town of Mansfield (the Town) and the University of Connecticut (UCONN) have commissioned this analysis of **the potential impact on the Town of the implementation of UCONN's *Next Generation Connecticut* Initiative** (NextGenCT) over the next ten years. Specific impacts to be explored include economic and fiscal benefits that will accrue to the Town as well as whether there will be any additional service, education, and infrastructure expenditures borne by the Town as a result of NextGenCT.

1.2. CURRENT TOWN/GOWN CONTEXT

As its main campus, Storrs, is located within the Town, **UCONN is a major driver of economic and cultural activity within Mansfield, and in turn Mansfield is part of the fabric of UCONN**. As such, the Town and UCONN have many occasions for synergy, with each entity benefitting from the other's presence and resources and both entities participating in useful partnerships. As UCONN considers its next phase of investment and growth, it may be mutually advantageous to revisit this relationship and to reevaluate impacts.

1.3. NEXTGENCT

NextGenCT is a ten-year plan to enhance UCONN's capacity as a global leader in science, technology, engineering, and mathematics (STEM), as well as an economic development engine and workforce development driver for the State of Connecticut. NextGenCT includes $1.54 billion in physical investments from 2015 to 2025, including new construction and major renovation of STEM facilities as well as two residential halls. It also envisions potential growth in UCONN's student enrollment, faculty head count, and research budget, which may result in increases in UCONN's annual operating levels.

1.4. IMPLICATIONS FOR THE TOWN

These investments and this growth are likely to produce significant economic benefits for the Town as the host municipality and the location in which this activity will occur. They may also result in additional expenditures for the Town, whether in the form of public services, education, or infrastructure. This report focuses exclusively on the potential economic benefits and expenditure implications within the Town of Mansfield resulting

from implementation of NextGenCT. NextGenCT may result in net new revenue and expenditure impacts for neighboring localities as well.

Hence, **it is prudent for the Town to consider what NextGenCT may mean for the Town, on both the revenue and expenditure side, so that it can plan and budget accordingly**. Indeed, given that the magnitude and composition of UCONN's growth over the next ten years is yet to be fully determined, it is wise for the Town to understand the implications on its revenues and expenditures from multiple potential growth scenarios rather than just from one fixed growth projection. Furthermore, NextGenCT may represent an opportunity for the Town and UCONN to extend existing collaborations or initiate new ones beneficial to both parties, so such possibilities warrant further exploration.

1.5. ORGANIZATION OF REPORT

This report has been developed to provide useful analysis and commentary for the Town and UCONN in understanding the impact of NextGenCT on the Town. The report is organized into six sections:

- *Section 2 – UCONN 2000 / UCONN 21st Century.* In order to express the interplay between the Town and UCONN, and to gain a better understanding of the ways in which investment and growth by UCONN can impact the Town, this report begins with an analysis of the historical impacts on the Town of UCONN 2000 and UCONN 21st Century, two past initiatives of UCONN which continue into the present and for which this report considers the time period from 1995 to 2014.

- *Section 3 – Economic and Fiscal Benefits from NextGenCT.* The report then pivots from a backward-looking perspective to a forward-looking one, beginning with an exploration of the potential economic and fiscal benefits on the Town from NextGenCT. This section translates the proposed investment and growth by UCONN from NextGenCT into a commensurate impact within the Town in terms of economic activity, employment, labor income, and government revenue.

- *Section 4 – Service, Education, and Infrastructure Impacts from NextGenCT.* NextGenCT may also result in additional service, education, and infrastructure expenditures for the Town. This section considers past relationships between UCONN investment and growth and Town expenditures as established in Section 2 of this report, as well as current Town service, education, and infrastructure capacity levels, to arrive at an estimated expenditure increase for the Town as a result of implementation of NextGenCT.

- *Section 5 – Partnership and Shared Service Opportunities from NextGenCT.* This section explores opportunities for the Town and UCONN to work together in

mutually beneficial ways as NextGenCT progresses. A framework for collaborations and enhanced partnerships can lead to improved outcomes for both the Town and UCONN.

- *Section 6 – Intergovernmental Revenue Impacts from NextGenCT.* Expenditure impacts may also be mitigated through an increase in the State of Connecticut's payment to the Town for serving as the host locality for UCONN. Currently, the State makes a "payment in lieu of taxes" (PILOT) to the Town and other localities that host state-owned property. The State also makes a payment to the Town and other localities to fund public education. Both payments are formula-driven, and it is useful to consider how the implementation of NextGenCT will change the payment amounts the Town may receive from the State.

- *Section 7 – Budget Models.* As noted above, the size and distribution of UCONN's growth through NextGenCT are unknown at this time. As a result, the Town must prepare for multiple permutations and levels of growth. This report is therefore accompanied by an interactive budget tool that enables the Town to model revenue and expenditure implications for different growth scenarios of University activity.

1.6. RESEARCH OVERVIEW

In order to complete these tasks and compile this report, a consulting team led by Econsult Solutions, Inc. was hired. The consulting team combined review of publicly available reports produced by the Town and UCONN, information provided by the Town and UCONN, secondary research, as well as one-on-one and group interviews with key people within the Town and UCONN.[2] All data, analytics, preliminary findings, and final deliverables were vetted by representatives of the Town and UCONN prior to publication and public presentation. Numeric results are intended to be a fair and conservative representation of the impact of UCONN growth on the Town's economy and finances using the best available data and informed assumptions and acknowledging the inherent imprecision associated with isolating impacts from growth versus from other factors.

[2] See Appendix A for a full list of interviews conducted for this report.

1.7. ABOUT THE CONSULTING TEAM

This report was produced by a consulting team led by Econsult Solutions, Inc. (ESI). ESI is a Philadelphia-based economic consulting firm that provides businesses and public policy makers with economic consulting services in urban economics, real estate economics, transportation, public infrastructure, development, public policy and finance, community and neighborhood development, planning, as well as expert witness services for litigation support. Its principals are nationally recognized experts in urban development, real estate, government and public policy, planning, transportation, non-profit management, business strategy and administration, as well as litigation and commercial damages. Staff members have outstanding professional and academic credentials, including active positions at the university level, wide experience at the highest levels of the public policy process, and extensive consulting experience.

Other consulting team members include: Fitzgerald & Halliday, a Connecticut-based planning and engineering firm; Ken Stapleton & Associates, a Miami-based consulting firm that specializes in assisting with university-locality partnerships; and Ninigret Partners, a market strategy consulting firm based in Providence.

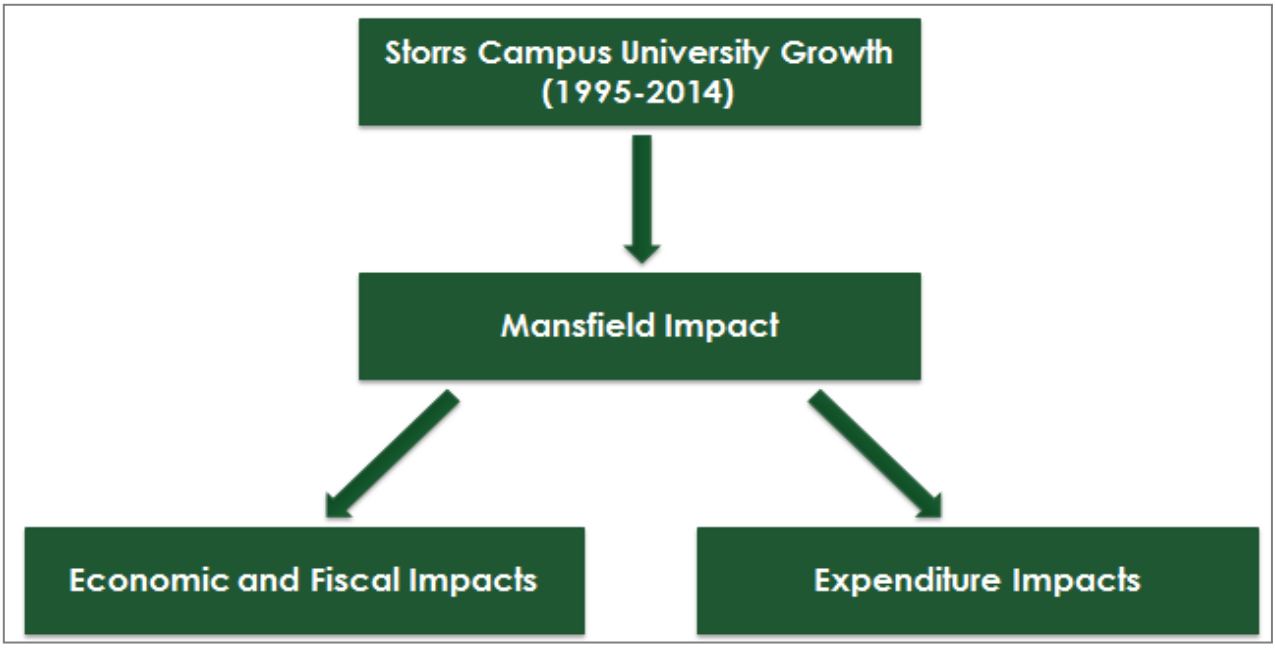
2. UCONN 2000 AND UCONN 21ST CENTURY

2.1. SECTION OVERVIEW

The purpose of this section is to **estimate the impacts on the Town of UCONN 2000 and UCONN 21st Century**, two past UCONN initiatives that continue into the present and for which this report considers the 20-year period between 1995 and 2014. As will be the case with NextGenCT, UCONN 2000 and UCONN 21st Century represented investment and growth by UCONN that resulted in positive economic and fiscal impacts for the Town and that may have also increased service, education, and infrastructure expenditures by the Town.

Examining whether, how, and how much these past UCONN initiatives impacted the Town is a useful exercise in its own right, and it aids in understanding and expressing the potential impact of NextGenCT on the Town over the next ten years. While this report's main focus is forward-looking, this section is extensive in its coverage and analysis of UCONN's past two initiatives, because they inform both the relationships between UCONN's growth and the Town's revenues and expenditures, as well as the present state of Town operations.

FIGURE 2.1 – FLOW CHART OF IMPACTS FROM UCONN 2000 AND UCONN 21ST CENTURY



Source: Econsult Solutions

2.2. RESEARCH OVERVIEW

A four-step research approach was utilized to estimate the impacts of UCONN 2000 and UCONN 21st Century on the Town:

- First, UCONN 2000 and UCONN 21st Century were defined in terms of the **capital investment and growth in operations and enrollment** that resulted from these two initiatives.

- Second, there was an exploration of what that investment and growth may have contributed to the Town on the **economic and fiscal benefit** side.

- Third, there was an exploration of the implications of that investment and growth for the Town on the **service/education/infrastructure expenditure** side.

- Fourth, these benefit and expenditure implications were summarized to understand past implications for the Town from 1995 to 2014 and to help anticipate future implications for the Town from 2015 to 2025 of growth associated with NextGenCT (see Section 4).

On the economic and fiscal benefit side, standard input-output modeling and fiscal impact analysis techniques were used to translate aggregate expenditures associated with UCONN 2000 and UCONN 21st Century into their impact on the local economy (output, employment, labor income) and local government (tax revenues).[3] This included aggregate construction, renovation, and maintenance investments between 1995 and 2014,[4] as well as the net change in operating expenditure and student spending levels between 1995 and 2014.[5]

On the service, education, and infrastructure side, standard fiscal expenditure impact modeling techniques were used to determine the effect of UCONN 2000 and UCONN 21st Century and their impact on local government expenditures. This included the net change in service expenditures, education expenditures, and infrastructure expenditures between 1995 and 2014.[6]

[3] See Appendix B for Econsult Solutions' economic and fiscal impact methodology.

[4] I.e. the sum of construction, renovation, and maintenance investment by UCONN in the Town, from the start of UCONN 2000 in 1995 until 2014.

[5] I.e. the difference between UCONN operating expenditure and student spending levels at the start of UCONN 2000 in 1995 versus 2014.

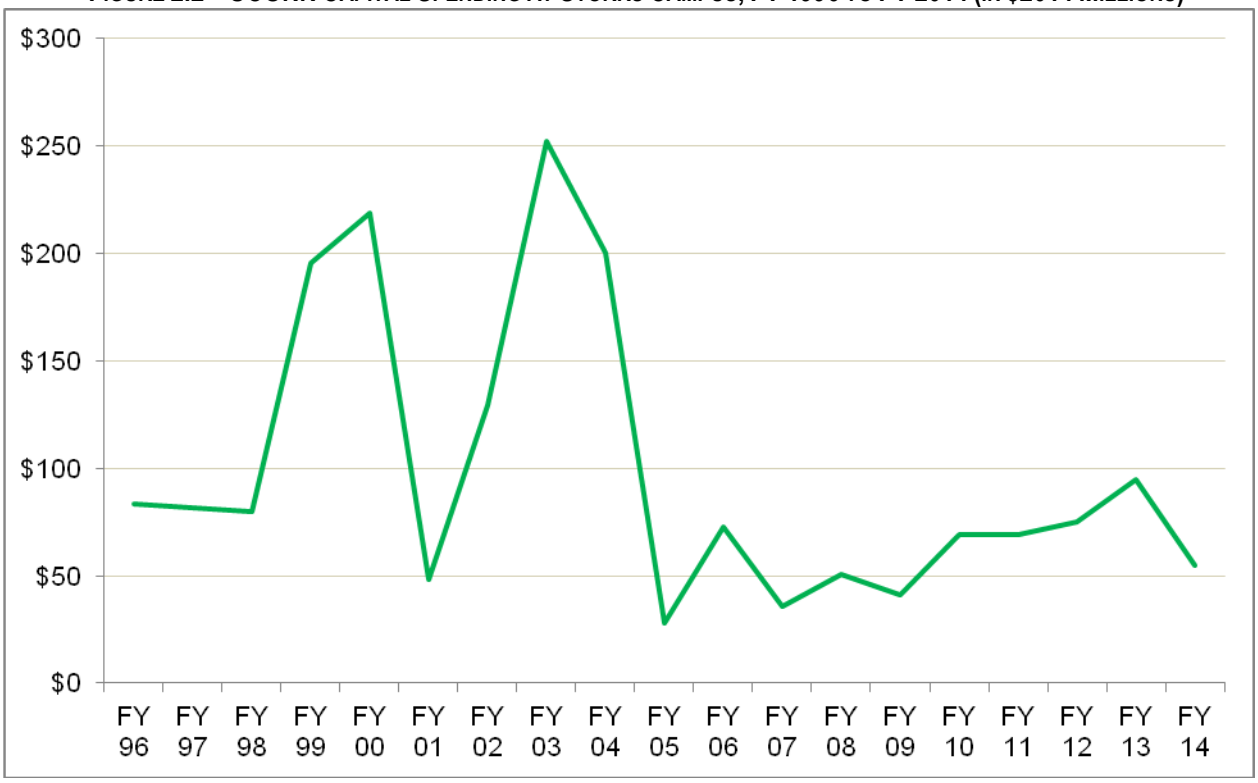
[6] I.e. the difference between Town expenditure levels at the start of UCONN 2000 in 1995 versus 2014.

2.3. ABOUT UCONN 2000 AND UCONN 21ST CENTURY

UCONN 2000 and UCONN 21st Century represented an investment of more than $2 billion on the part of the State of Connecticut to renew, rebuild, and enhance UCONN's campuses. Two decades of investment and growth, starting in 1995, have helped move UCONN towards national prominence as a center of excellence in instruction and research. Within the Town, the initiative has led to a sustained period of capital investment at UCONN's main campus, enabling growth in student enrollment, operating budget, faculty, and staff.

Estimates provided by the UCONN Finance Department show that nominal spending on capital investment at the Storrs campus (and therefore within the Town) totaled $1.51 billion from FY 1996 to FY 2014. In current dollars, that totaled **$1.88 billion of capital investment within Mansfield at the Storrs Campus**, or approximately $100 million per year (see Figure 2.2).[7]

FIGURE 2.2 – UCONN CAPITAL SPENDING AT STORRS CAMPUS, FY 1996 TO FY 2014 (IN $2014 MILLIONS)



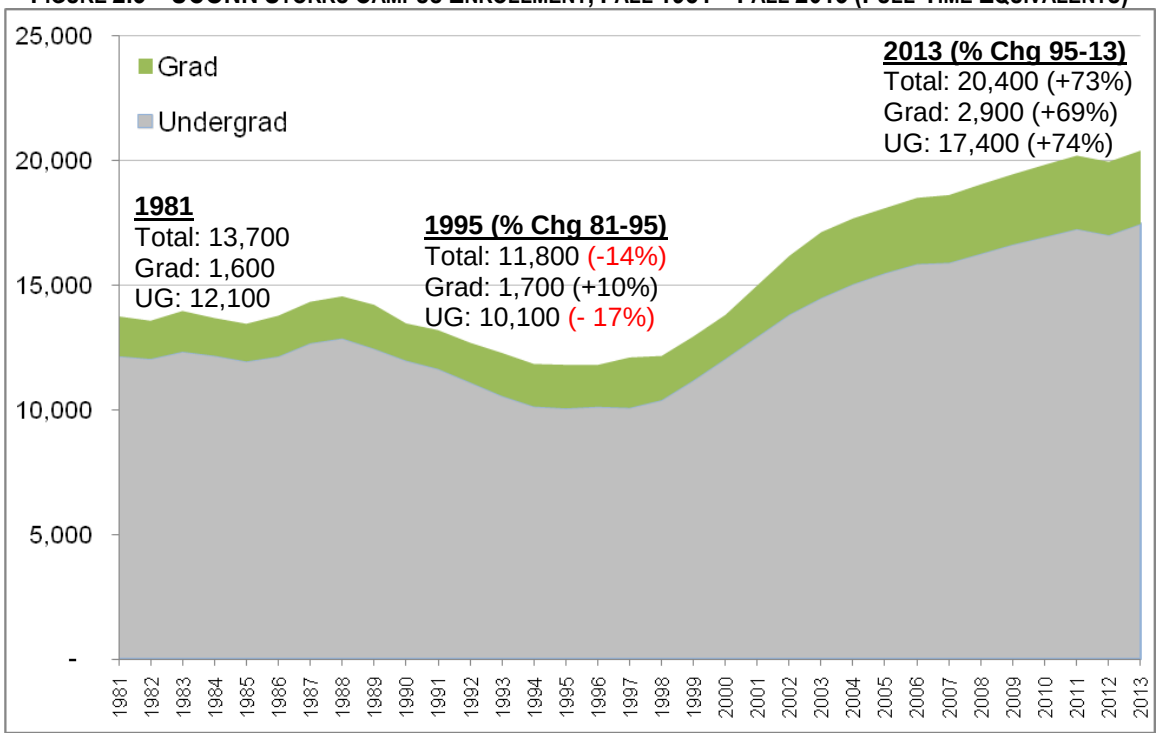
Source: UCONN Finance Department

[7] See Appendix C for additional detail on construction, renovation, and maintenance expenditures by UCONN at the Storrs Campus between 1995 and 2014.

Importantly, UCONN's Finance Department notes that annual capital investment prior to and outside of the UCONN 2000 and UCONN 21st Century initiatives was very limited. Therefore, **all of this investment can functionally be seen as "net new,"** in that it is above and beyond the level of investment that would have taken place absent the initiative.

This investment also enabled significant growth in student enrollment at the Storrs campus. Figure 2.3 below shows total, undergraduate, and graduate enrollment at Storrs in full-time equivalent (FTE) students[8] from Fall 1981 to Fall 2013. Between Fall 1981 and Fall 1995, prior to the introduction of UCONN 2000, total enrollment at the campus declined by 14 percent, from 13,700 to 11,800. Since the introduction of UCONN 2000 and UCONN 21st Century, that trend has reversed, with total enrollment growing by 73 percent from 11,800 in 1995 to 20,400 in 2013, driven by near equal percentage increases in undergraduate student (74 percent) and graduate student (69 percent) FTE growth. As with capital spending, the trend prior to 1995 suggests that **all enrollment growth between Fall 1995 and Fall 2013 can be considered "net new"** in that it likely would not have occurred absent UCONN 2000 and UCONN 21st Century.

FIGURE 2.3 – UCONN STORRS CAMPUS ENROLLMENT, FALL 1981 – FALL 2013 (FULL-TIME EQUIVALENTS)



Source: UCONN Planning Department

[8] FTE calculation is based on 15 total registered credits per semester. Typically, FTE count is slightly lower than total enrollment for undergrads, who generally take a full course load, and significantly lower for graduate students, who comprise a mix of full and part-time students.

Over the same period, UCONN also saw significant increases in its operating budget as well as in the number of faculty and staff directly employed at the Storrs campus, both of which have economic implications for the Town. In current dollars, **UCONN's annual operating spending at the Storrs campus increased 64 percent in real terms from $665 million in FY 1996 to $1,093 million in FY 2014,** according to UCONN's Finance Department.[9] Direct employment at the Storrs campus is estimated to have grown 19 percent from 3,450 in FY 1996 to 4,100 in FY 2014 (see Table 2.1).[10]

TABLE 2.1 – UCONN STORRS CAMPUS DIRECT EMPLOYMENT AND OPERATING BUDGET, FY 1996-2014 ($2014M)

Category	FY 1996	FY 2014	Net Increase	% Increase
Direct Employment (jobs)	3,450	4,150	650	19%
Operating Budget	$665	$1,093	$428	64%
Salaries	$356	$443	$87	25%
Benefits	$102	$204	$101	99%
Energy/Equipment	$106	$207	$101	96%
Financial Aid	$33	$127	$94	284%
Non-Mandatory/Projects	$8	$14	$6	67%
Research	$60	$98	$39	65%

Source: UCONN Finance Department

2.4. ECONOMIC IMPACTS FROM UCONN 2000 AND UCONN 21ST CENTURY

The University growth that took place as a result of UCONN 2000 and UCONN 21st Century, including direct capital spending and increases in operations, employment and enrollment, created additional economic activity within the Town. This activity in turn generated spillover economic activity within the Mansfield economy, supporting additional employment and labor income. The purpose of this section is to quantify those impacts.

Economic impact estimates are generated by utilizing input-output models to translate an initial amount of direct economic activity into the total amount of economic activity that it supports, which includes multiple waves of spillover impacts generated by spending on goods and services and by spending of labor income by employees. The economic impact from the University growth is modeled using IMPLAN, an industry standard input-

[9] "In real terms" means adjusted for inflation to 2014 levels.

[10] The total employee count for FY 1996 was apportioned to the Storrs campus based on the known average reported proportion of total employees at the Storrs Campus from FY 2008 to FY 2015.

output model software program. Such models are designed to estimate two sets of spillover impacts from direct expenditures:

- The indirect effect, which measures the multiplier effect from the purchase of goods and services from local vendors; and

- The induced effect, which measures the multiplier effect from the spending of labor income by employees

Our economic model estimates impacts at the County level, which are then shared down to the Town level using known ratios of economic activity between the County and Mansfield. In cases where the relevant direct ratios are known, such as the proportion of UCONN employees living within the Town, those direct inputs are used.[11]

Capital Investment

Construction activity by UCONN on its main campus all took place in the Town. As noted in Section 2.3, little or none of this capital investment would have been likely to occur absent UCONN 2000 and UCONN 21st Century, so all of its impact is attributable to those programs.

As noted in Section 2.3, the direct capital investment at the Storrs campus (and therefore within the Town) totaled $1.88 billion in current dollars from FY 1995 to FY 2014. In addition to an annual estimate of dollars spent, UCONN's Finance Department provided detailed project descriptions for these investments. As a result, it was possible to model the spending within the appropriate specific sector to better understand its economic impact.

Table 2.2 below presents the total economic impacts within Mansfield of capital investments on the Storrs campus between FY 1995 and FY 2014. **Capital spending is estimated to have increased total economic output by nearly $2 billion, and to have supported more than 10,800 jobs (approximately 570 per year) with total labor income of more than $635 million**.

[11] See Appendix D for additional detail on how county-level economic impacts were shared down to Mansfield-level economic impacts.

TABLE 2.2 – ESTIMATED ECONOMIC IMPACT WITHIN THE TOWN OF MANSFIELD FROM UCONN STORRS CAMPUS CAPITAL INVESTMENTS BETWEEN FY 1996 AND FY 2014 (IN $2014 MILLIONS)

Direct Capital Investments in Mansfield from FY 1996-2014	Indirect + Induced Impacts	Total Expenditure Impact	Employment Supported (Jobs)	Labor Income Supported
$1,881	$81	$1,962	10,810	$635

Sources: Econsult Solutions, IMPLAN, UCONN Finance Department

University Operations and Employment

Unlike capital investments, which tend to be thought of as accumulating over time, growth in University operations, employment, and enrollment are best understood by examining the impacts of the net difference in levels between FY 1996 and FY 2014. This net difference represents a "before and after" snapshot of the growth impact of UCONN 2000 and UCONN 21st Century, rather than a composite figure, but represents the net difference occurring on an annual basis, absent any future growth. As noted in Section 2.3, University enrollment and investment was flat in the years prior to these initiatives, so the net difference in levels again can be considered to be entirely attributable to the UCONN 2000 and UCONN 21st Century Initiatives.

As noted in Section 2.3, data from UCONN's Finance Department indicated that annual operating expenditures at the Storrs Campus increased by $445 million between FY 1996 and FY 2014 in real terms, due to a combination of University expansion and increases in costs. Table 2.3 below shows the total economic impact within Mansfield of that increase, in terms of economic output, employment supported, and labor income supported.

Employment supported represents the known employee count of the Storrs campus, as well as additional employment within the Town supported by the spillover impacts of University payroll and spending. It is estimated that **University operations currently support, directly or indirectly, nearly 5,500 jobs per year within Mansfield**, slightly more than half of the total employment of the Town, and that that job number has increased by over 1,000 as a result of the implementation of UCONN 2000 and UCONN 21st Century.

TABLE 2.3 – ESTIMATED ECONOMIC IMPACT WITHIN THE TOWN OF MANSFIELD FROM NET INCREASE IN UCONN STORRS CAMPUS OPERATING EXPENDITURES FROM FY 1996 TO FY 2014 (IN $2014 MILLIONS)

	Direct Operating Expenditures in Mansfield	Indirect + Induced Impacts	Total Expenditure Impact	Employment Supported (Jobs)	Labor Income Supported
FY 1996	$693	$136	$829	4,440	$466
FY 2014	$1,138	$215	$1,354	5,480	$586
Net Increase 1996-2014	$445	$79	$525	1,040	$120

Sources: Econsult Solutions, IMPLAN, UCONN Finance Department

One of the major economic impacts of University operations is labor income. The economic impact driven by University operations within Mansfield is estimated to support almost $600 million in labor income earned in Mansfield annually, an increase of $120 million in the past two decades. However, not all of those employees are residents of Mansfield, and thus Mansfield does not necessarily capture all of the impacts of their spending since non-residents are likely to spend the majority of their earnings outside the Town. It is therefore instructive to understand the proportion of UCONN Storrs campus employees living within the Town, which serves as one of the direct inputs in the economic model. Employee zip code data provided by the University[12] indicates that approximately 20 percent of UCONN's Storrs campus employees reside within the Town (see Table 2.4). This will be a useful ratio for other calculations in this report.

TABLE 2.4 – ESTIMATED CURRENT PROPORTION OF UCONN MAIN CAMPUS FACULTY/STAFF LIVING IN MANSFIELD

Total Storrs Campus Faculty/Staff, Fall 2014	Est. Proportion Living in Mansfield	Est. Storrs Campus Faculty/Staff Living in Mansfield
4,180	20%	840

Source: UCONN Finance Department, UCONN Human Resources Department

Student Spending

The final major category of economic impact within Mansfield attributable to University growth is off-campus student spending. Students are significant drivers of the local economy on items like housing, food and entertainment, all of which have spillover and employment effects. Direct data is neither available on the spending patterns of UCONN students, nor the proportion of that spending that is captured within Mansfield. However,

[12] UCONN Office of Institutional Research provided self-reported addresses for full-time and part-time Storrs campus employees as of May 1, 2014.

the UCONN financial aid office does provide students with detailed estimates of annual spending needs by category, which serves as a useful estimate of student spending patterns. These estimates were matched with UCONN data on residential distribution of students – on and off-campus, in town vs. out of town, resident vs. commuter – to arrive at reasonable spending estimates by students. Estimates were then constructed of the share of that student spending captured within Mansfield, which varies by student type and spending category.[13]

Annual student spending is estimated to have totaled $312 million for FY 2014, a 90 percent increase in real terms from $148 million compared to FY 1996 (see Table 2.5). This increase is primarily driven by the increase in student population, although per student spending is also estimated to have increased in certain categories.

TABLE 2.5 – ESTIMATED INCREASE IN TOTAL ANNUAL SPENDING BY STORRS CAMPUS STUDENTS, FY 1996-2014 (IN $2014 MILLIONS)

	Total Student FTE	Total	Housing	Food	Transport ation	School Supplies	Other
FY 1996	11,800	$164.3	$65.6	$58.5	$12.3	$10.0	$17.9
FY 2014	20,400	$311.9	$136.3	$101.2	$23.1	$17.3	$33.9
Net Increase 1996-2014	8,600	$147.6	$70.8	$42.7	$10.8	$7.3	$16.0
% Increase	73%	90%	108%	73%	88%	73%	89%

Source: Econsult Solutions based on UCONN Data

However, only a portion of this student spending impacts the Town economy. A significant portion is spent on-campus and accrues directly to the University, including major items like room and board for on-campus students. This spending is captured within the University operating budget and is therefore already accounted for in the previous sub-section and thus is excluded from this sub-section. Other off-campus spending takes place outside of Mansfield, as students can and do travel to other localities for food, recreation, and entertainment, and a sizable minority of off-campus students do not live within the Town but in other localities and therefore pay rent outside of the Town.

Nonetheless, the volume of student spending estimated to take place off campus and within the Town is significant and growing. Town and University staff each report a significant increase in retail options available to students within the Town, in particular with the recent addition of the mixed-use Storrs Center complex directly across from

[13] See Appendix E for additional detail on estimated growth in spending by UCONN students in Mansfield between 1995 and 2014.

campus. Therefore, in addition to an overall increase in spending, driven both by student enrollment growth and changes in student spending patterns, the share of spending captured within the Town is also estimated to have increased, particularly in the food and other spending (recreation, necessities, etc.) categories. In sum, students are estimated to have directly spent $73 million within the Town in FY 2014, up more than 130 percent from $31 million (in constant dollars) in FY 1996 (see Table 2.6).

TABLE 2.6 – ESTIMATED INCREASE IN ANNUAL NON-CAMPUS UCONN STUDENT SPENDING WITHIN MANSFIELD, FY 1996-2014 (IN $2014 MILLIONS)

	Total Student FTE	Total Spend	Housing	Food	Transport ation	School Supplies	Other
FY 1996	11,800	$31.1	$19.3	$5.3	$0.5	$1.0	$5.0
FY 2014	20,400	$72.7	$38.8	$15.2	$1.0	$1.7	$16.0
Net Increase 1996-2014	8,600	$41.6	$19.5	$10.0	$0.4	$0.7	$10.9
% Increase	73%	134%	101%	190%	79%	73%	217%

Source: Econsult Solutions based on UCONN Data

The direct spending estimated to have taken place in Mansfield can be modeled, by sector, to determine its spillover, employment, and labor income impacts within the Mansfield economy. Modelable off-campus student expenditures within Mansfield for FY 2014 are estimated to total $49 million, more than double in real terms the same figure in FY 1996. [14] **The total economic impact of this spending within Mansfield is estimated to be approximately $51 million. This spending is estimated to support approximately 370 jobs (up from 160 in FY 1996) and $5 million in labor income** (see Table 2.7).

TABLE 2.7 – ESTIMATED ECONOMIC IMPACT WITHIN THE TOWN OF MANSFIELD FROM NET INCREASE IN UCONN STUDENT SPENDING FROM FY 1996 TO FY 2014 (IN $2014 MILLIONS)

	Est. Direct Student Spending in Mansfield	Indirect + Induced Impacts	Total Expenditure Impact	Employment Supported (Jobs)	Labor Income Supported
FY 1996	$21.5	$0.6	$22.1	155	$2.2
FY 2014	$49.3	$1.4	$50.7	370	$5.0
Net Increase 1996-2014	$27.8	$0.8	$28.6	215	$2.8

Sources: Econsult Solutions, IMPLAN, UCONN Financial Aid Department, UCONN Off-Campus Housing

[14] Adjustments were made to account for the actual impact of student spending within the Town. For example, much of the amount spent on retail does not circulate in the Town, but goes directly to retail product manufacturers, almost all of which are located outside of the Town.

Additional Impact Categories

In addition to these impacts that can be estimated on an annual basis, UCONN's growth creates additional net new economic activity within the Town through the events it creates and hosts. Sporting events, cultural activities, move-in and graduation weekends and the like all bring in visitors from outside of the area, resulting in spending within the Town that would not have taken place absent the University. To the extent that University growth attributable to UCONN 2000 and UCONN 21st Century have increased the frequency and volume of visitor spending from these events, additional economic impacts have occurred within Mansfield beyond those quantified in this section.

This research approach and these findings aid our ability to project future economic benefits from NextGenCT, to the extent that future University growth is likely to generate economic impacts of a similar nature within the Town. Therefore, a similar analysis methodology as described here is employed in Section 3.

2.5. FISCAL IMPACTS FROM UCONN 2000 AND UCONN 21ST CENTURY

As explained in Section 2.4, University investment and growth that took place in the Town created economic activity within the Town, generating additional spillover activity and supporting additional employment and labor income. From a tax revenue standpoint, much of the growth in business and personal income described above is captured by the State of Connecticut, rather than the Town, which pursuant to state law does not levy income or business taxes. Rather, the Town is largely reliant on local property taxes to support its expenditure needs, as well as intergovernmental payments from the State for hosting state-owned land and for education aid. Thus, to assess the impact of UCONN 2000 and UCONN 21st Century on the Town's tax base, it is necessary to explore its impact on property assessments.

Conversations with both the Town and the University, in addition to the distribution analysis of university-affiliated population discussed in Section 2.4 and Section 2.7, all suggest that the vast majority of residential and commercial growth in Mansfield from 1995 to 2014 is attributable to University growth. The most visible example of this is **Storrs Center, a mixed-used housing and commercial complex directly across the street from the campus, which has been constructed in phases over the past five years and continues to grow**. Clearly, this complex is made possible by University-related demand for housing and retail (in addition to the direct support provided by the University and Town to the project).

Data from the Town's 2014-2015 budget shows a net fiscal gain to the Town of $173,000 due to Storrs Center in FY 2014. This calculation is based on property tax revenues

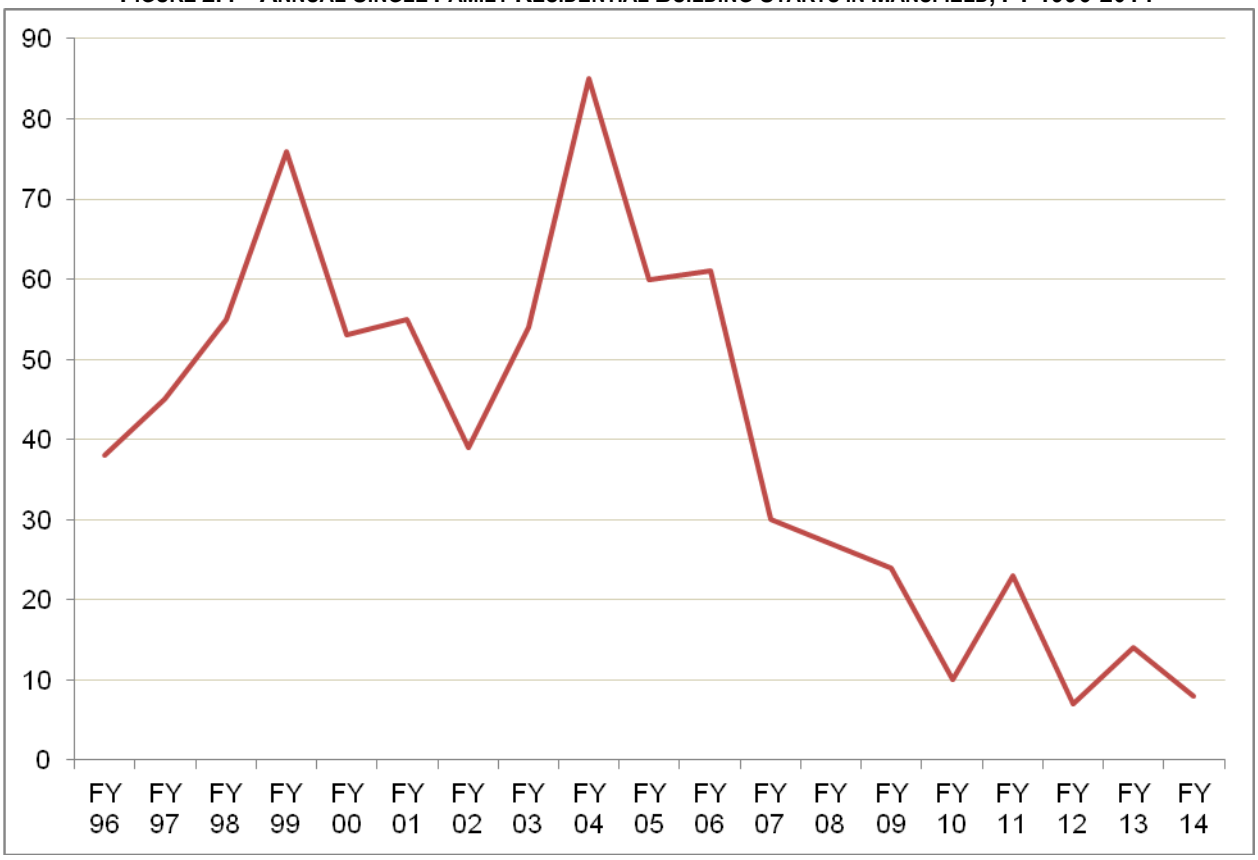
accruing from the development ($791,000), net of abatements applicable to those revenues ($321,000) and operating costs borne by the Town for the year ($297,000).[15] As development continues, tax revenues are projected to grow significantly for the Town. A property re-evaluation provided by the Town for 2014 shows an increase in assessed value from $45 million in 2013 to $78 million in 2014, which would yield more than $2 million at the current millage rate if fully taxable, with additional construction still to come. All told, Storrs Center is anticipated to add more than 600 new apartment and condominium units by August 2015, significant commercial space, and approximately 40 new townhouses, which have yet to be constructed. While the full build out of Storrs Center is ongoing, the significant infusion in assessed value that it represents is clearly attributable in large part to demand driven by UCONN growth over the past two decades.

The basic laws of supply and demand suggest that University growth has also driven residential construction and property value growth elsewhere in the Town. As off-campus student housing demand has increased, infill from students in single-family housing near the campus has pushed non-University demand outward, necessitating new housing supply. This is complemented by increases in UCONN faculty and staff during this period, some of whom choose to live in Mansfield and who therefore increase demand for housing within the Town. Data sources provided by the Town indicate that from FY 1996 to FY 2014, above and beyond development at Storrs Center, there were:

- 764 single family residential building starts in Mansfield (see Figure 2.4);
- 15 multi-family dwelling starts and 4 two-family dwelling starts;
- 160 new condominium units (all located at Freedom Green)

[15] This calculation represents a snapshot of the ongoing annual impact, which will grow as tax revenues increase. It does not factor in upfront grants and outlays related to development.

FIGURE 2.4 – ANNUAL SINGLE FAMILY RESIDENTIAL BUILDING STARTS IN MANSFIELD, FY 1996-2014



Source: Town of Mansfield

To accommodate this residential growth, the Town has approved 78 new sub-divisions since 1995, encompassing approximately 435 lots. Figure 2.4 above shows the annual trend in residential building starts, with activity more concentrated in the first decade, commensurate with the fastest period of University population growth (although it should be noted that this trend is also consistent with national economic and housing trends). Utilizing a series of conservative assumptions,[16] it is estimated that development of these sub-division lots alone has generated nearly $70 million in incremental assessed property value within the Town. A conservative allocation of 50 percent of this development as University-related yields a University-attributable gain of approximately $33 million in value, even accounting for the value of land prior to redevelopment.

In addition to new construction, the increase in the off-campus student population and resulting housing demand has driven property value increases for existing student

[16] All lots are assumed to contain one single family residence; fair market value is estimated at the Town's median home value of $223,000; assessed value is estimated at 70% of fair market value in accordance with Connecticut law; and assessed value of lots prior to redevelopment is assumed to be $10,000 per lot.

housing complexes, which represent some of the largest property tax payers in Mansfield (4 of the top 6 according to the 2013 assessment). The Town has provided data on assessments and sales of 13 major student housing complexes that have appreciated in value since 1995. Many of these properties have been sold, some on multiple occasions, over the past two decades, as their profitability has increased due to the steady increases in student demand. These sales have created one time conveyance tax revenues for the Town of more than $100,000. In addition, their aggregate property value has increased by 39 percent, above and beyond inflation, over that period. All of this property value growth is attributable to UCONN growth.

Table 2.8 below sums together the above descriptions of property tax base growth within Mansfield assumed to be attributable to UCONN growth in two categories: new residential sub-divisions; and student housing complexes. These two categories clearly do not comprehensively account for all property tax base impacts from UCONN within Mansfield over the past two decades, but they do provide a useful order of magnitude estimate due to the availability of assessment data. In sum, these two categories account for an increase of $47 million in property tax base, which represents around 5 percent of Mansfield's taxable real estate. Applying the 2013 mill rate of 27.95 (2.795 percent) yields an estimate of $1.29 million in additional property tax revenue attributable to UCONN growth that accrues to Mansfield annually (in addition to one-time revenues such as permits, fees and conveyance tax related to private development and sales). That is to say, because of growth in assessed value in the Town as of 2014 due to UCONN growth from 1995 to 2014, the Town received $1.29 million more in property tax revenues in 2014 than it would have absent UCONN growth in these two categories alone.

TABLE 2.8 – ESTIMATED INCREASE IN RESIDENTIAL PROPERTY TAX BASE WITHIN THE TOWN OF MANSFIELD ATTRIBUTABLE TO UCONN GROWTH, FY 1996 TO FY 2014 (IN $2014)

	1995 Assessment ($Mil)	FY 2014 Assessment ($Mil)	Net Growth ($Mil)	Est 1996 Tax Revenue @ 2013 mil rate ($000s)	Est 2014 Tax Revenue @ 2013 mil rate ($000s)	Net Tax Revenue Growth ($000s)
New Subdivisions	$2.2	$35.5	$33.3	$61	$992	$931
Student Apartment Complexes	$25.6	$39.7	$14.1	$717	$1,110	$359
Total	**$27.8**	**$75.2**	**$47.4**	**$777**	**$2,101**	**$1,290**

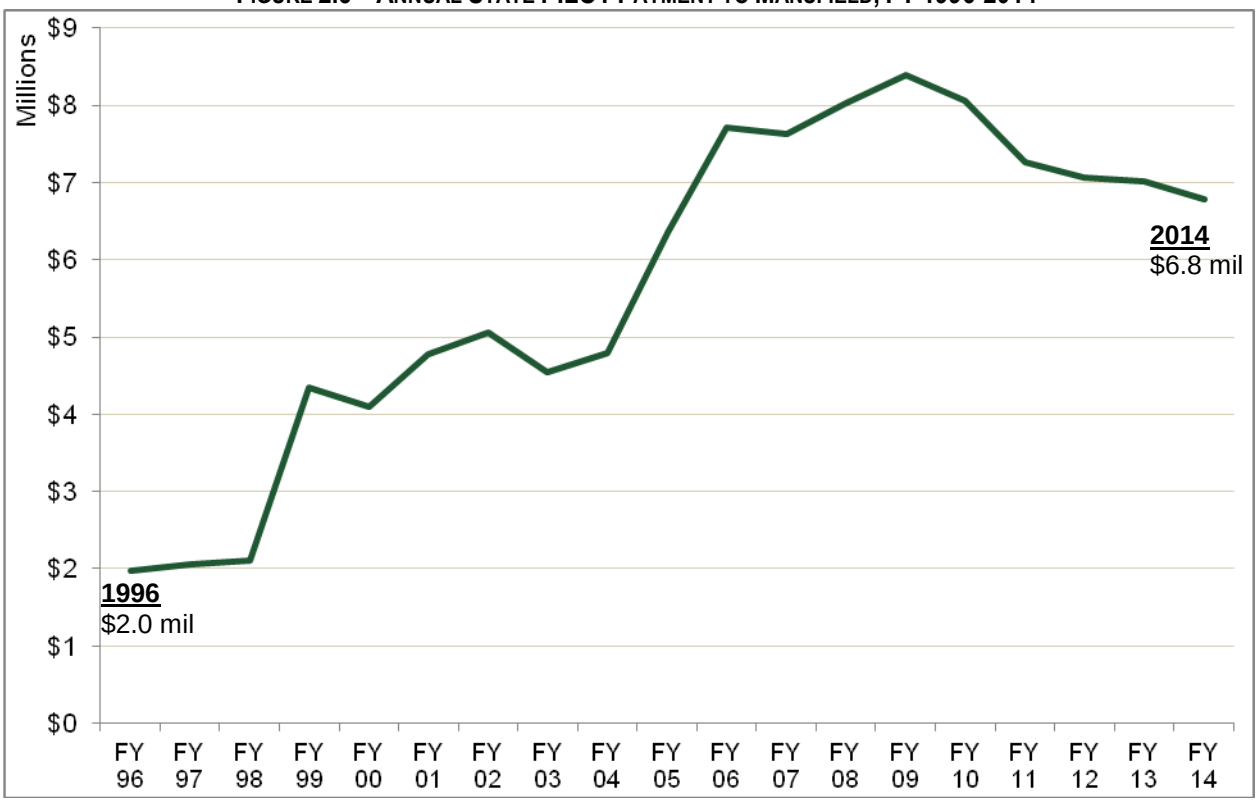
Source: Econsult Solutions using Town of Mansfield data

In addition to increases in the tax base, UCONN's growth has also had implications for intergovernmental revenues that the Town receives from the State of Connecticut. By formula, towns within Connecticut are expected to be reimbursed for 45 percent of the

property tax value of the state owned land within their jurisdiction. Section 6.2 of this report discusses this formula in detail, and notes that Mansfield has rarely received the full allocation as written by formula from the state.

Figure 2.5 below shows the annual PILOT payment received by Mansfield. The PILOT payment peaked at $8.4 million in FY 2009, and declined by approximately 20 percent from FY 2009 to FY 2014 due to a decline in funding for the PILOT line item statewide.

FIGURE 2.5 – ANNUAL STATE PILOT PAYMENT TO MANSFIELD, FY 1996-2014



Sources: Town of Mansfield

Despite incomplete funding relative to the statute, the significant growth in the assessed value of state-owned land within Mansfield driven by University growth from UCONN 2000/21st Century has still resulted in a significant increase in the annual PILOT payment received by the Town. Table 2.9 below shows the growth in the assessed value of State-owned land within the Town, as well as growth in the Town's PILOT payment.

- The total assessment of state-owned land within Mansfield, which is composed almost entirely of the UCONN campus, increased from $336 million in FY 1996 to $1.15 billion in FY 2014, an increase of 242 percent.

- Growth in the state PILOT payment mirrored this increase, growing 243 percent from $2 million to $6.8 million over the same time period.

This suggests that, despite the fact that the PILOT has not been fully statutorily funded, UCONN's growth over the past two decades has been directly responsible for an increase of $4.8 million in the annual state PILOT payment received by the Town of Mansfield. Or, said another way, if UCONN did not grow, the annual State PILOT payment would have increased at a far lower rate (say, at the rate of inflation, which during this period was 56 percent), thus costing the Town an estimated $3.7 million per year relative to current levels (see Table 2.9).

TABLE 2.9 – ESTIMATED GROWTH IN STATE PILOT PAYMENT TO MANSFIELD AND ASSESSED VALUE OF STATE-OWNED LAND IN MANSFIELD, FY 1996-2014 ($ MIL)

	State PILOT Payment to Mansfield	Assessed Value of State-Owned Land in Mansfield
FY 1996	$1.97	$336
FY 2014	$6.78	$1,150
Net Increase 1996-2014 ($ nominal)	$4.80	$814
% Increase	+ 243%	+ 242%
FY 1996 ($2014)	$3.04	$521
Net Increase 1996-2014 ($ 2014)	$3.74	$629
% Increase	+123%	+121%

Sources: Town of Mansfield

This research approach and these findings aid our ability to project future fiscal benefits from NextGenCT, to the extent that future University growth is likely to have revenue implications for the Town that are similar in nature. Therefore, a similar analysis methodology as described here is employed in Section 3.

2.6. EXPENDITURE IMPACT RESEARCH OVERVIEW

The investment and growth associated with UCONN 2000 and UCONN 21st Century have also resulted in additional expenditure needs for the Town. These may have taken the form of additional public services, education expenditures, and/or infrastructure investments. Understanding whether and how much UCONN and UCONN 21st Century led to increases in service, education, and infrastructure expenditures requires understanding **how the investment and growth associated with these two initiatives**

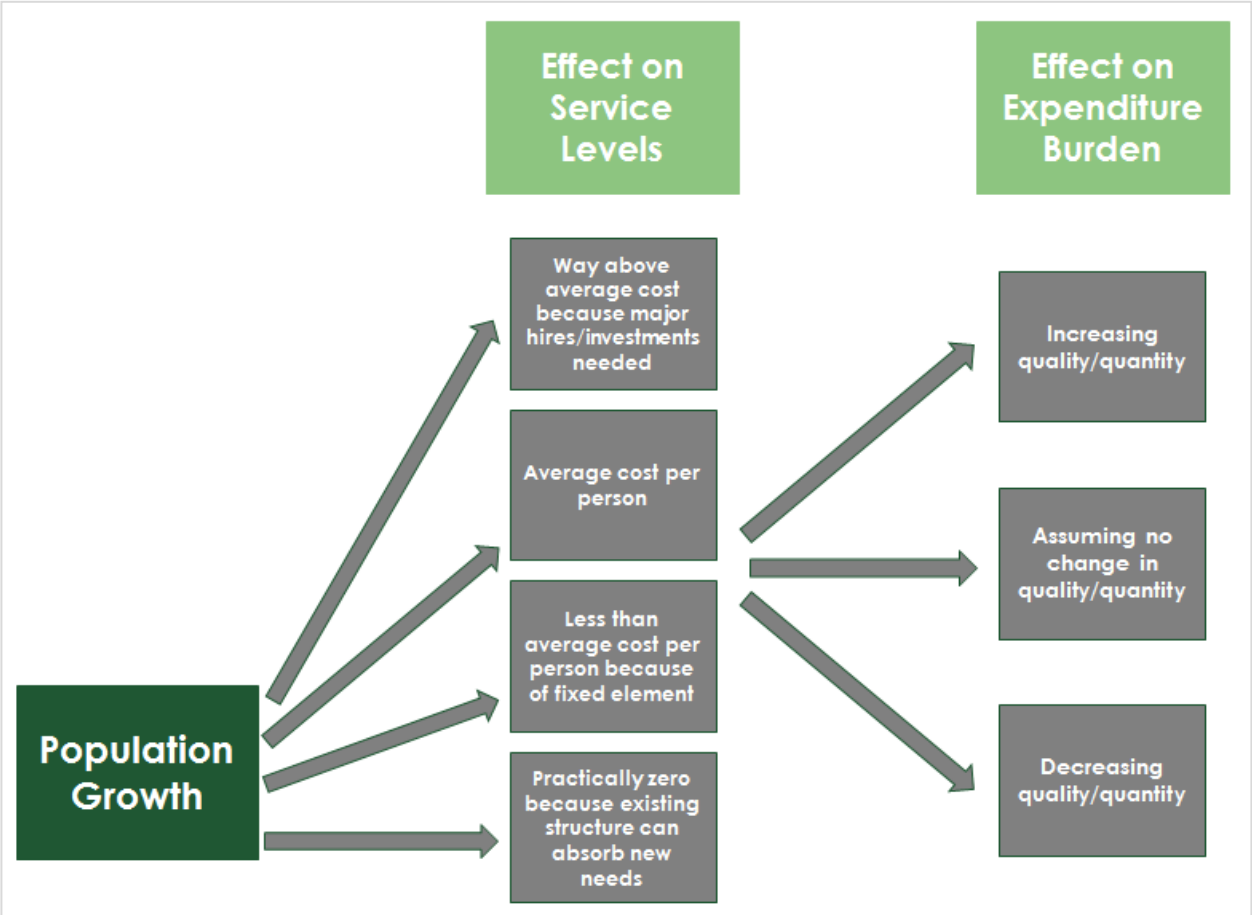
did or did not require the Town to provide additional public services, bear additional education expenditures, or initiate additional infrastructure investments.

In the short term, it is possible for net new activity to result in little to no increase in local government expenditures if excess capacity exists to absorb the new activity without increasing staffing or purchases. It is also possible, if a locality is at or above capacity, that even small increases in net new activity will result in proportionately large increases in local government expenditures if a locality must bear significant staffing or other costs to account for the new activity.

Over longer periods of time, these irregularities may or may not smooth out. Determining the effect of UCONN 2000 and UCONN 21st Century on the Town's service, education, and infrastructure expenditures therefore requires delving into historical budget information, determining present Town capacity levels, and estimating the effect of investment and growth by UCONN on Town expenditures. A similar approach is taken in projecting future effects on Town expenditures from NextGenCT. Note that these estimates are not applicable to each intermediate year, but rather reflect the incremental change between end points (1996 and 2014 in the case of the backward-looking analysis, and 2014 and 2025 in the case of the forward-looking analysis in Section 4). Estimates for intermediate years, or alternate growth scenarios, can be produced using the relationships determined by this analysis within the budget model detailed in Section 7.

Whether looking backward or forward, determining expenditure impacts means understanding the relationship between population growth and service need as well as the relationship between service need and expenditure levels (see Figure 2.6).

FIGURE 2.6 – THE EFFECT OF POPULATION GROWTH ON TOWN EXPENDITURE LEVELS



Source: Econsult Solutions

To begin with, population growth may or may not result in an increase in the need for or use of municipal services. This relationship could be linear, in that as population grows the need for or use of municipal services grows proportionately. Oftentimes the need for or use of municipal services grows more slowly than population, and in some cases there is almost no increase in the need for or use of municipal services, whether because service provision is largely fixed in nature (e.g. there is only one town manager no matter what the population is) or because the population growth is unrelated to a particular service because the new people do not need that service or have it provided for by another entity (e.g. undergraduates do not have children that need to be educated in the public schools, and their recreational needs are largely provided and paid for by the university they attend). In some cases, the opposite is true: population growth can create an outsized impact on service provision. This is true when service provision is currently at capacity, such that any growth will require significant investment to accommodate it (e.g. adding staff, buying new equipment, investing in infrastructure).

The relationship between population growth and service provision may be very irregular over short periods of time, but over longer periods of time they will smooth out. Similarly, the relationship may be very step-like (as opposed to smooth and linear), especially if they involve staffing up in response to growth, although one can smooth that expenditure increase somewhat by paying overtime or hiring part-time employees without benefits. Understanding what the relationship is between population growth (and that which is related to UCONN) and service provision by the Town thus has required a combination of many approaches:

1) Looking at the relationships that are inferred from past actual budgets;

2) Deconstructing expenditure levels into fixed vs. various components;

3) Exploring what is the actual relationship between growth on the one hand and service provision on the other hand; and

4) Interviewing Town employees to determine where service provision is or is not at capacity.

As noted above, understanding the relationship between population growth and service provision is only half of the equation. The other half is understanding the relationship between service provision and expenditure levels. Whether or not an increase in the need for or use of a particular municipal service has led to an increase in municipal expenditures requires understanding before-and-after service levels. This is because a locality has many choices in response to an increase in the need for or use of a particular municipal service. It can choose to increase expenditures commensurate to the increase in service provision. Or, it can choose to increase expenditures even higher, in order to increase service quality or quantity to levels higher than in the past. Or, alternatively, it can choose to increase expenditures at a lower rate, or even keep them flat or cut them, and thus decrease service quality or quantity to levels lower than in the past. For example, this can be done by offering fewer services per capita, not alleviating crowding or scarcity, or allowing resources to run down in amount or condition.

Putting these two sets of relationships together gives us a sense of what population growth has to do with expenditure impact, and of how to isolate that impact. To be specific, that impact can be determined by understanding that the actual change in a municipal expenditure category is the product[17] of that impact plus a number of other cost factors (see Figure 2.7):

1) Inflation – Costs rise over time in nominal terms due to inflation.

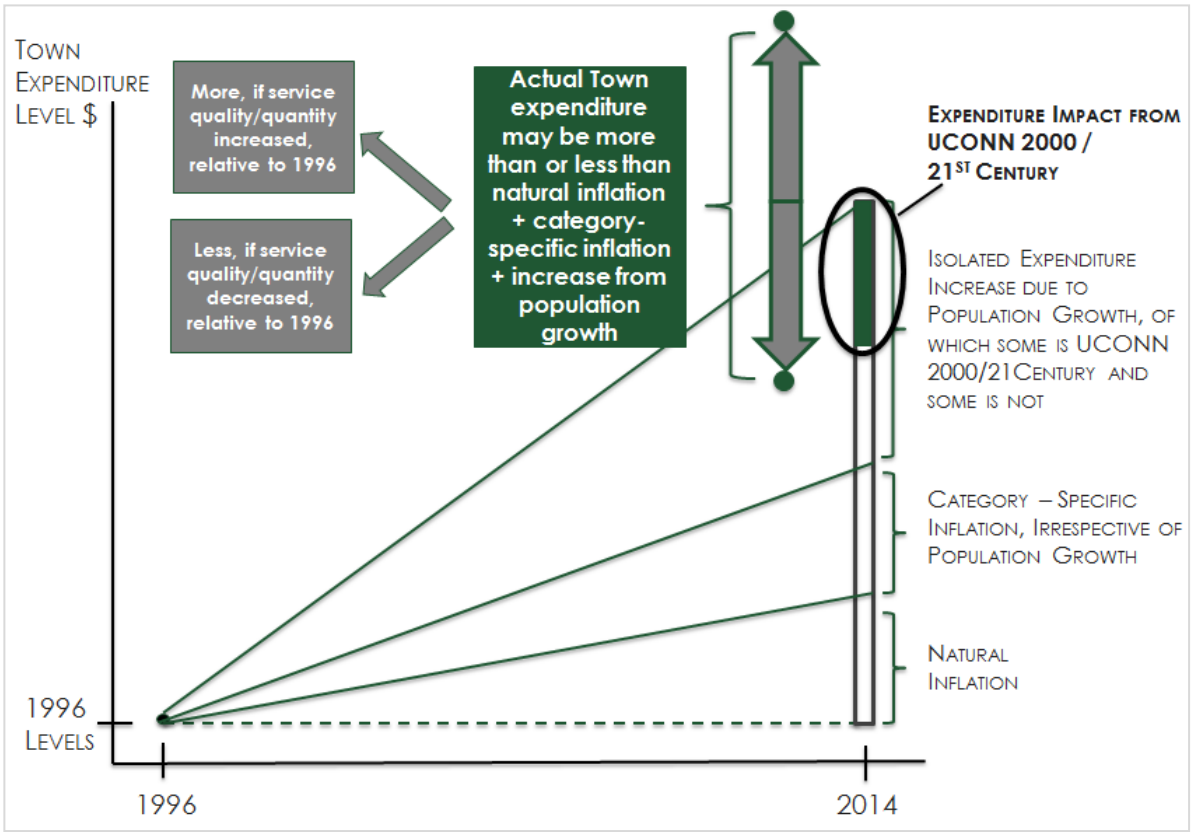
[17] Note that the percentage increases and decreases shown across population may not sum to the percentage change in actual growth, because the growth in the population base is multiplied rather than added to the inflationary effects (in order to capture inflation in costs for the new population in addition to the existing population).

2) Category-specific increases – In some expenditure categories, costs have gone up at a rate higher than inflation, so there will be increases irrespective of and independent from population growth.

3) Changes in service quality and quantity levels – Actual cost increases will be even greater if a locality chooses to increase its service quality and quantity to levels higher than in the past, and will be lower than expected if a locality chooses to decrease its service quality and quantity to levels lower than in the past.

By deconstructing actual changes in Town expenditure levels into these component parts, the effect of population growth alone can be estimated. Then, one can determine what portion of that effect is attributable to UCONN. Section 2.7 through Section 2.10 step through the calculations performed to estimate the expenditure impacts from UCONN 2000 and UCONN 21st Century on Town service and education expenditure levels. This approach applies most easily to service and education expenditures. Base capital expenditures function in a similar fashion, but the lumpiness of large infrastructure investments means they are better considered on a case-by-case basis, which is the subject of Section 2.11.

FIGURE 2.7 – TOWN EXPENDITURE IMPACT FOR UCONN 2000 / 21ST CENTURY



Source: Econsult Solutions

2.7. HISTORICAL GROWTH IN TOWN POPULATION AND EXPENDITURES

This section presents historical information on operating expenditures and population growth, from which expenditure impacts from UCONN 2000 and UCONN 21st Century can be determined in Section 2.9 and Section 2.10.

Town operating expenditures are sorted into six major categories: general government, public safety, public works, community services, community development, and townwide expenditures (see Table 2.10). Education expenditures are differentiated between K-8 and 9-12 in part because of the different ways the Town pays for each set of grades (see Table 2.11). From 1996 to 2014, inflation is estimated to be 56 percent, based on the Consumer Price Index, or 2.5 percent per year. No adjustment for inflation is made in the tables below.

TABLE 2.10 – NOMINAL CHANGE IN OPERATING EXPENDITURE LEVELS IN THE TOWN OF MANSFIELD FROM FY 1996 TO FY 2014

	General Government	Public Safety	Public Works	Community Services	Community Development	Townwide Expenditures
Examples	Admin, Finance, HR, Energy Costs	Police, Fire, Animal Control	Roads, Maintenance Grounds	Human Services, Library, Recreation	Inspections, Zoning, Planning	Benefits, Pension
FY 1996 Budget	$978,000	$1,491,000	$1,729,000	$1,281,000	$168,000	$1,040,000
FY 2014 Budget	$2,486,000	$3,303,000	$2,080,645	$1,987,000	$536,000	$2,480,000
% Chg FY 96-14[18]	+67%	+122%	+84%	+55%	+219%	+139%

Source: Town of Mansfield Annual Budgets

[18] These percentage changes are inclusive of adjustments made in the General Government, Public Works and Community Services. Between 2008 and 2009, there were some internal shifts in the accounting of some expenditures, which resulted in a $850,000 increase in the General Government expenditure line, a $1.1 million decrease in the Public Works line. These one-time shifts were backed out of the calculations in order to reflect the true increases in these categories. To be more specific, the one-time changes were removed and replaced with an increase commensurate with inflation. The Community Services line has been adjusted for both 1996 and 2014 to reflect the General Fund contribution to the Parks and Recreation Fund, which provides those services (and is otherwise funded through user fees).

TABLE 2.11 – NOMINAL CHANGE IN EDUCATION EXPENDITURE LEVELS IN THE TOWN OF MANSFIELD, FY 1996 TO FY 2014

Grades	Pre-K to 8	9 to 12
Enrollment FY 1996	1,351	470
Enrollment FY 2014	1,242	604
% Chg FY 96-14	-8%	+29%
Expenditures FY 1996	$10,838,000	$4,366,000
Expenditures FY 2014	$20,688,000	$10,006,000
% Chg FY 96-14	+91%	+129%
Expenditures per Student FY 1996	$8,310	$9,290
Expenditures per Student FY 2014	$16,540	$16,570
% Chg FY 96-14	+127%	+78%

Sources: Town of Mansfield, Region 19 School District

According to the US Census Bureau, Town population increased by 42 percent from 1996 to 2014 (from 18,274 to 25,977 - see Table 2.12). Mansfield's rate of population increase between the 2000 and 2010 Census (28 percent) was the second-fastest in the state of Connecticut; however, population was stable between 2010 and 2014. As previously discussed, this population increase corresponded with a period of significant growth in University enrollment, as well as increases in direct employment on the campus, enabled by the UCONN 2000 and UCONN 21st Century initiatives. A variety of data sources provided by the University and Town help to characterize the distribution of population increase into various categories, including:

- Undergraduate students living on campus, estimated based on data provided by UCONN's Division of Student Affairs
- Undergraduate and graduate students living off-campus in Mansfield, estimated based on information provided by UCONN's Office of Off-Campus Student Services
- Faculty and staff living in Mansfield, estimated based on zip code data provided by UCONN's Office of Institutional Research
- Non-UCONN population in the Town, which is estimated as a residual based on Census data on total population and households and the UCONN-attribution of population described above.

These categories can alternately be broken into on-campus vs. off-campus growth, or UCONN-affiliated and non-UCONN growth (see Figure 2.8):

- 27 percent of population increase is estimated to be on-campus (undergrads only), while 15 percent is estimated to be off-campus (a mix of UCONN-affiliated and non-UCONN affiliated).

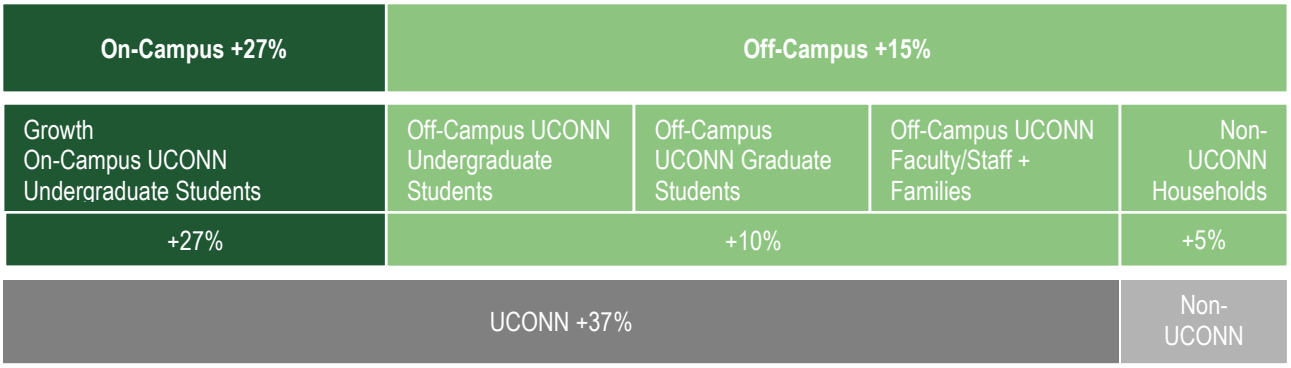
- A 37 percent population increase is estimated to be UCONN-affiliated (on campus plus UCONN off-campus), with 5 percent estimated to be non-UCONN affiliated.

TABLE 2.12 – ESTIMATED DISTRIBUTION OF POPULATION CHANGE WITHIN TOWN OF MANSFIELD, 1996 – 2014

Population Growth Category	Includes	Population 1996	Population 2014	Net Increase	% Growth – Total Pop
Total Population Growth	ALL	18,275	25,975	7,700	42%
On-Campus	Undergrad students	6,980	11,920	4,940	27%
Off-Campus: UCONN-affiliated	Undergrads, grad students Faculty/staff + families	3,825	5,670	1,845	10%
Non-UCONN	Other growth in Town pop	7,475	8,380	915	5%

Sources: Econsult Solutions based on U.S. Census, UCONN and Town of Mansfield data

FIGURE 2.8 – COMPOSITION OF POPULATION GROWTH IN THE TOWN OF MANSFIELD, FY 1996 TO FY 2014



Sources: Econsult Solutions based on U.S. Census, UCONN and Town of Mansfield data

2.8. INITIAL CLASSIFICATION OF EXPENDITURE CATEGORIES

Isolating and calculating the effect of UCONN growth on Town expenditures starts by making three initial classifications of expenditure categories. First is the marginal effect of population growth on expenditure levels, which is to say how sensitive an expenditure category is to population growth. Second is current capacity and quality level, to determine how actual expenditure changes differ from what they would have been had service levels remained constant over time. Third is the proportion of marginal

expenditures driven by population growth that is attributable to UCONN-affiliated population.

Isolating the effect of growth on municipal expenditures is necessarily an imprecise exercise, but it is one that can be informed by a number of sources. In this case, judgments were made based in part on studies previously commissioned by the Town or performed by the consulting team, in part on interviews with Town staff about how each expenditure category behaves and where each expenditure category is now in terms of capacity and quality levels, and in part on an examination of the fixed versus variable composition of each expenditure category. Note that education expenditures require a different approach, which is described in Section 2.10.

Expenditure categories were sorted into one of three types as they related to the marginal effect of growth from 1996 to 2014 on expenditure levels:

- Low marginal expenditure categories show minimal impact per new population (perhaps 0-10 percent)

- Medium marginal expenditure categories show small impact per new population (perhaps 20-40 percent)

- High marginal expenditure categories show significant impact per new population (above 40 percent, though likely still less than 1:1 with existing population, except in cases where service needs related to growth may outpace service needs for the existing population)

Expenditure categories were also sorted into one of three types as it related to the amount of service quality or quantity reduction that took place between 1996 and 2014 (which is to say the amount of adjustment needed to properly compare expenditure levels from 1996 to those from 2014):

- Low quality adjustment categories show little or no change in service capacity over the past two decades (likely 0 percent)

- Medium quality adjustment categories show moderate change in service capacity over the past two decades (perhaps 5-10 percent)

- High quality adjustment categories show significant adjustment in service capacity over the past two decades (perhaps 20 percent or above)

An approach was then developed to allocate expenditures associated with population growth between UCONN and Town populations. This exercise requires an analysis of cost drivers in each category, which vary by service and population type. For example, on-campus and off-campus students have different service needs from the perspective of the Town, and within the off-campus population, undergraduate students, graduate

students and faculty/staff households tend to consume different services. Extensive data was provided by the Town to assist in understanding where cost drivers occur in each category, which are discussed throughout Section 2.9.

The residential cost profiles shown in Table 2.13 below are adjusted for the population growth allocations shown in Table 2.12 to produce an attribution percentage of population-driven expenditures to UCONN. This calculation is reflective to the fact that, just as the addition of new population may or may not result in the same per capita cost as the existing population, there are differentials in the expenditure needs of different population groups. Within this framework, the cost profile of year-round Town residents unaffiliated with the University are set by definition at 100%, and adjustments are made up or down from that figure to the off-campus and on-campus UCONN-affiliated population based on category-specific factors. In general, on-campus students represent a significantly lower cost to the Town than year-round residents because the majority of their service needs are provided by the University. The off-campus population affiliated with the University, by contrast, is estimated to have lower service needs in some categories (off-campus students are not in the Town year round, and still take advantage of many University services), but higher service needs in others (due to the challenges caused by residential turnover and other specific service needs in some categories).

TABLE 2.13 – INITIAL CLASSIFICATION OF EXPENDITURE CATEGORIES AND ESTIMATED COST PROFILE BY RESIDENT TYPE

Marginal Cost Impact	General Government	Public Safety	Public Works	Community Services	Community Development	Townwide Expenditures
Marginal Effect of Population Growth on Expenditure Levels	Low	High	Medium	Medium	High	Medium
Adjustment for Change in Capacity/Quality Levels	Low	High	Low	Low	Medium	Low
Residential Cost Profile	**General Government**	**Public Safety**	**Public Works**	**Community Services**	**Community Development**	**Townwide Expenditures**
Town Resident	100%	100%	100%	100%	100%	100%
UCONN Off-Campus	75%	100%	120%	75%	120%	75%
UCONN On-Campus	10%	35%	10%	10%	10%	10%
Attribution of Costs Driven by Population Growth	**General Government**	**Public Safety**	**Public Works**	**Community Services**	**Community Development**	**Townwide Expenditures**
UCONN	67%	80%	75%	67%	75%	67%
Non-UCONN	33%	20%	25%	33%	25%	33%

Source: Econsult Solutions

2.9. SERVICE EXPENDITURE IMPACTS FROM UCONN 2000 AND UCONN 21ST CENTURY

2.9.1. GENERAL GOVERNMENT

General Government represents the administrative functions of Town government. As noted above, it is expected that the expenditure impact of population growth on this expenditure category is relatively low. Based on population growth of 42 percent from 1996 to 2014, it is preliminarily assumed that expenditure growth due to population growth in this category is about 10 percent of that, or 4 percent. Deconstructing the 67 percent increase in General Government expenditures from 1996 to 2014 will determine if that preliminary estimate is accurate. All new residents attributable to UCONN (both on-campus and off) could have an impact on general government expenditures, although the impact of the on-campus population is limited.

As noted above, inflation during this time was 56 percent. General government expenditures are likely to have increased at a rate higher than inflation during this time. American City and County keeps an index of municipal expenditures on goods and services, which estimates that such costs rose by 67 percent from 1996 to 2014, or 11 percent more than inflation. This is the amount that is assumed for General Government, irrespective of changes due to population growth and independent of changes in service quality and quantity levels.

It is assumed that there was a slight decrease in Town government service quality and quantity levels per capita, based on information from the Town regarding challenges in the revenue collection office relating to UCONN students and staff. Since the university-affiliated population is by definition relatively transient, the Town has to expend resources on education related to provisions like motor vehicle taxes and parking tickets. Further, utility collections to fund the refuse/recycling program face challenges from the turnover in accounts due to the normal cycle of off-campus student rentals. Estimating this change at minus 5 percent yields an estimate of a 5 percent change in expenditure need due to population growth. Said another way, a 42 percent increase in population led to a 5 percent increase in General Government expenditure needs for a consistent level of service, after accounting for the effects of inflation, additional category-specific cost increases, and changes in actual service quality and quantity levels. This seems a reasonable magnitude of increase given the nature of the service (in line with the preliminary estimate of 4 percent).

To isolate the portion of that increase attributable to UCONN 2000 and UCONN 21st Century, it is important to note that UCONN represented 88 percent of the population growth, but probably a lower proportion of cost impact given that much of the UCONN population increase is in the form of undergraduates who do not live in the Town year-round and who have many of their public service needs taken care of by UCONN itself. Based on an assumption that off-campus UCONN affiliated residents (a mix of students

and faculty/staff) represent 75 percent of the cost of a typical Town resident, and on-campus students represent 10 percent of the cost, it is estimated that two thirds (67 percent) of expenditure growth attributable to population growth is attributable to UCONN. This represents 3.3 percent in growth relative to the 1996 budget level.

To calculate the impact of this increase on the current budget, 3.3 percent of the 1996 budget level is multiplied by cost increases due to inflation and category-specific inflation of 67 percent to reflect the increase costs for maintaining a consistent service quantity and quality level in this category. This results in an attribution of $55,000 in service costs for General Government attributable to UCONN-affiliated growth in 2014, or $8 per capita for the approximately 6,800 additional UCONN-affiliated residents (see Table 2.14)

TABLE 2.14 – ESTIMATED IMPACT OF UCONN 2000 / 21ST CENTURY ON TOWN GENERAL GOVERNMENT EXPENDITURES

Deconstructing Actual Cost Increase 1996-2014	Apportioning Impact from UCONN 2000/21st Century	Estimated Impact per Capita
Cost Increase: +67% • Inflation: +56% • Category-Specific Increase: +11% • Adjustment for Change in Service Quality/Quantity: -5% • Increase from Population Growth: +5%	UCONN • 67% of impact = • 3.3% increase = • $33,000 in 1996 and $55,000 in 2014	UCONN • $55,000 from UCONN (÷) • 6,800 new UCONN pop = • $8 per new UCONN pop Town • $2.486M budget (÷) • 26,000 pop = • avg cost of $96 per capita

Source: Econsult Solutions

2.9.2. PUBLIC SAFETY

Public Safety encompasses the Town government provision of police and fire services, animal control and emergency management. As noted above, it is expected that the expenditure impact of population growth on this expenditure category is relatively high. Based on population growth of 42 percent from 1996 to 2014, it is preliminarily assumed that expenditure growth in this category is 50 percent of that, or 21 percent. Deconstructing the 121 percent increase in Public Safety expenditures from 1996 to 2014 will determine if that preliminary estimate is accurate. All new residents, both on-campus and off-campus, are considered relevant population for public safety service expenditures.

As noted above, inflation during this time was 56 percent. Public safety expenditures are likely to have increased at a rate higher than inflation during this time. As a proxy, police troopers, which are procured by the Town from the State of Connecticut, cost the Town 146 percent more during this time. Since head count only went up by 8 percent, that

translates into a 127 percent increase in the cost of policing, independent of the increase in the amount of policing needed, more than twice the rate of inflation. Part of this increase is driven by changes in the State Resident Trooper Program, discussed in more detail in Section 4.3.2, which suggests that cost increases elsewhere in the public safety category (which includes Fire & EMS, animal control and emergency management) may be less severe. It is therefore assumed that public safety costs overall have increase at double the rate of inflation, adding another 56 percent in expenditures.

Information provided by the Town indicates that the University-affiliated population has a significant impact on Fire and EMS service provision, in addition to policing. Data from 2010 to 2015 indicates that approximately 10% of fire calls within the Town are related to the University, with 8% allocated to off-campus housing. In addition, the Town staffs EMS duty crews on Friday and Saturday nights in the fall, in response to anticipated service needs from off-campus students. The Town Fire Department also coordinates with UCONN public safety providers for large events anticipated to increase call volume. More generally, the Town engages in joint training exercises with UCONN's public safety, and participates in mutual aid response. The University provides extensive public service provision on its own campus (police, fire, building protection, etc.) and also responds to calls in the vicinity of the campus.

Conversation and documentation from the Town suggest that there were also meaningful declines in service quality and quantity levels in Public Safety during this time. A recent Town report[19] recommended that the Town increase its resident trooper count from 9 to 13 in order to meet the community's desired service level, but due to budget constraints, only one trooper was added for in FY 2012-13.[20] This suggests that the Town responded to the growth in its service needs partly by adding costs (going from 9 to 10 troopers) but partly by accepting lower service levels (accepting 10 troopers instead of 13). Thus, the Town could be considered to be providing police services at approximately 24 percent (10/13) below the desired level. However, it is unlikely that Town service levels in 1996 matched the desired service level articulated in the Town's police service study, which envisions round the clock coverage out of the Mansfield resident trooper's office (in addition to the round the clock coverage supplied by Troop C in Tolland). Further, police costs represent just one component of overall public safety, others of which may not have seen the same increase in service needs. Therefore, it is conservatively estimated that the adjustment in service quality and quantity levels relative to 1996 is half of that number, or minus 12 percent.

This calculation yields an estimate of a 19 percent change in expenditure need due to population growth. Said another way, a 42 percent increase in population led to a 19 percent increase in Public Safety expenditure needs for a consistent level of service, after

[19] "Town of Mansfield Police Service Delivery Alternatives", Police Executive Research Forum and Management Partners Incorporated, 2012.

[20] Note that changes to the Resident Trooper Program have caused a reduction to 8 officers, including the sergeant, for FY 2016 for budgetary reasons. Forward-looking implications are discussed in Section 4.3.2.

accounting for the effects of inflation, additional category-specific cost increases, and changes in actual service quality and quantity levels. This seems a reasonable magnitude of increase given the nature of the service, which is sensitive to population growth (in line with the preliminary estimate of 21 percent).

To isolate the portion of that increase attributable to UCONN 2000 and UCONN 21st Century, it is important to note that students do present an outsized per capita influence from a public safety perspective, due to the nature of their extracurricular activities, requiring specific attention at specific times and locations. This is reflected in data provided by the Town on ordinance violation, nuisance complaints, etc. associated with students within the Town. Weighed against this is the fact that UCONN provides its own police force, which handles incidents within and on the fringes of campus, meaning that the Town is only responsible for the public safety needs of students for a portion of their time. Based on an assumption that off-campus UCONN affiliated residents (a mix of students and faculty/staff) represent 100 percent of the cost of a typical Town resident, and on-campus students represent 35 percent of the cost, it is estimated that 80 percent of expenditure growth attributable to population growth is attributable to UCONN. This represents 15.2 percent in growth relative to the 1996 budget level.

To calculate the impact of this increase on the current budget, 15.2 percent of the 1996 budget level is multiplied by cost increases due to inflation and category-specific inflation of 121 percent to reflect the increase costs for maintaining a consistent service quantity and quality level in this category. This results in an attribution of $481,000 in service costs for Public Safety attributable to UCONN-affiliated growth in 2014, or $71 per capita for the approximately 6,800 additional UCONN-affiliated residents (see Table 2.15)

TABLE 2.15 – ESTIMATED IMPACT OF UCONN 2000 AND UCONN 21ST CENTURY ON PUBLIC SAFETY EXPENDITURES

Deconstructing Actual Cost Increase 1996-2014	Apportioning Impact from UCONN 2000/21st Century	Estimated Impact per Capita
Cost Increase: +121%[21] • Inflation: +56% • Category-Specific Increase: +56% • Adjustment for Change in Service Quality/Quantity: -12% • Increase from Population Growth: +19%	UCONN • 80% of impact = • 15.2% increase = • $227,000 in 1996 and $481,000 in 2014	UCONN • $481,000 from UCONN (÷) • 6,800 new UCONN pop = • $71 per new UCONN pop Town • $3.302M budget (÷) • 26,000 pop = • avg cost of $127 per capita

Source: Econsult Solutions

[21] Recall that the percentage increases and decreases shown across population may not sum to the percentage change in actual growth, because the growth in the population base is multiplied rather than added to the inflationary effects (in order to capture inflation in costs for the new population in addition to the existing population).

2.9.3. PUBLIC WORKS

Public Works encompasses the Town government provision of road, grounds and maintenance services, as well as services like solid waste. Public Works expenditures can be found in the Town's operating budget, Solid Waste Fund, and capital budget. This section estimates the impact of population growth on the operating budget, and discusses the impact on the Solid Waste fund. Capital expenditures are discussed in Sections 2.9.7 and 2.11.

As noted above, it is expected that the expenditure impact of population growth on general fund expenditures are relatively medium, though limited in terms of operating expenditures both because many public works investments fall under the capital budget, and also because UCONN investments cover many of the public works needs of the University population. Based on population growth of 42 percent from 1996 to 2014, it is preliminarily assumed that expenditure growth in this category is about 10 percent of that, or 4 percent. Deconstructing the 81 percent increase in Public Works expenditures from 1996 to 2014 will determine if that preliminary estimate is reasonable.

As noted above, inflation during this time was 56 percent. Public works expenditures are likely to have increased at a rate higher than inflation during this time. As a proxy, construction costs grew by 81 percent during this period, per the Construction Price Index generated by the US Census Bureau. This suggests that this category grew by approximately 25 percent more than inflation.

Conversations with the Town suggest that there have been moderate declines in service quality from increases in population, specifically related to off-campus students, who have irregular service needs. For example, the volume of refuse collection service requests increases significantly during the summer due to apartment turnover. Further, the amount and types of trash placed curbside by off-campus students introduces blight that the Town must address, when student rentals turn over in the fall and spring and during fall off-campus weekend activities. Students also require continuing education on issues like trash fees and recycling. The reductions in service quality are sized at minus 5 percent.

Another major service expense for the Town driven by population growth is solid waste disposal. However, costs for this service (approximately $1.1 million per year for pickup, supplies, tipping fees, etc.) are handled outside of the operating fund, in the Solid Waste Management Fund. This account operates as an enterprise fund, meaning that user fees for the service offset the Town's costs. From the perspective of the Town budget, therefore, population growth that increases service needs will also increase fees collected, with fee levels set to make the program revenue-neutral. For this reason, growth related costs for this service are excluded from the budget impact calculation for Public Works. However, while fee increases to cover growing service needs are revenue-neutral from the perspective of the Town government, those costs are passed on to the user, in this case Town residents (both University affiliated and non-university affiliated).

If population growth increases per capita service costs, existing users may see rates increase without a corresponding benefit for those users.

Accounting for impacts from inflation, category specific inflation, and service quality changes suggests that population growth is responsible for an increase of approximately 5 percent in Town expenditure needs. Said another way, a 42 percent increase in population led to a 5 percent increase in Public Works expenditure needs for a consistent level of service, after accounting for the effects of inflation, additional category-specific cost increases, and changes in actual service quality and quantity levels. This seems a reasonable magnitude of increase given the nature of the service (in line with the preliminary estimate of 4 percent).

To isolate the portion of population-driven cost increase attributable to UCONN 2000 and UCONN 21st Century, it is important to distinguish between cost growth attributable to on-campus students, which is moderate since most of their needs are handled by the University, and cost growth attributable to the off-campus university-affiliated population, which is significant due to the challenges created by student rentals and the associated turnover. Based on an assumption that off-campus UCONN affiliated residents (a mix of students and faculty/staff) represent 120 percent of the cost of a typical Town resident, and on-campus students represent just 10 percent of the cost, it is estimated that 75 percent of expenditure growth attributable to population growth is attributable to UCONN. This represents 3.8 percent in growth relative to the 1996 budget level.

To calculate the impact of this increase on the current budget, 3.8 percent of the 1996 budget level is multiplied by cost increases due to inflation and category-specific inflation of 81 percent to reflect the increase costs for maintaining a consistent service quantity and quality level in this category. This results in an attribution of $118,000 in service costs for Public Works attributable to UCONN-affiliated growth in 2014, or $17 per capita for the approximately 6,800 additional UCONN-affiliated residents (see Table 2.16).

TABLE 2.16 – ESTIMATED IMPACT OF UCONN 2000 AND UCONN 21ST CENTURY ON PUBLIC WORKS EXPENDITURES

Deconstructing Actual Cost Increase 1996-2014	Apportioning Impact from UCONN 2000/21st Century	Estimated Impact per Capita
Cost Increase: +81% • Inflation: +56% • Category-Specific Increase: +25% • Adjustment for Change in Service Quality/Quantity: -5% • Increase from Population Growth: +5%	UCONN • 3.8% of impact = • 5% increase = • $65,000 1996 and $118,000 in 2014	UCONN • $118,000 from UCONN (÷) • 6,800 new UCONN pop = • $17 per new UCONN pop Town • $2.080M budget (÷) • 26,000 pop = • $80 avg cost of $ per capita

Source: Econsult Solutions

2.9.4. COMMUNITY SERVICES

Community Services encompasses the Town government provision of human services, libraries, and recreational amenities. As noted above, it is expected that the expenditure impact of population growth on this expenditure category is medium. Based on population growth of 42 percent from 1996 to 2014, it is preliminarily assumed that expenditure growth in this category is about one-eighth of that figure, or 5 percent. Deconstructing the 55 percent increase in Community Service expenditures from 1996 to 2014 will determine if that preliminary estimate is reasonable.

As noted above, inflation during this time was 56 percent. No additional cost increase is attributable to this expenditure category. Conversations and data from the town indicate that demand for Community Services has clearly increased over this time period. For example, the use of library services is significantly impacted by graduate students and post-doctorates as many of their children attend story times and programs, and also take advantage of the collection of Chinese literature specifically intended to meet their demand. Use also noticeably increases during exam times, which indicates that some use the building as a study hall. Parks and recreation offers a fee waiver program for services. Many graduate students and post-doctorates utilize services like before and after school care, swim lessons, vacation camps, and youth sports programs for their families, many of which are eligible for the fee waiver program. The department also notes that some students themselves even use the Community Center, citing potential "overcrowding" at the University's recreation facilities. Finally, the Town reports that lower income UCONN employees and graduate students utilize human services, including the school readiness programs, food services, and transportation services.

In addition to Community Services provided through General Fund revenues, the Town operates a separate Parks and Recreation Fund to cover those services. Expenditures within this fund have grown significantly, from less than $400,000 in 1996 to approximately $2 million in 2014. Like the Solid Waste Fund discussed in the Public Works section, the Parks and Recreation Fund is an enterprise fund, generating revenue through user fees. However, there is a subsidy from the general fund to support administration and specific services, which has increased by approximately $200,000 as programmatic needs have grown over that time. In addition, as discussed regarding the Solid Waste Fund, the fact that user fees cover additional growth related cost from the perspective of the Town government does not mean that this growth is without cost to the existing users, who may see increases in per capita fees.

Therefore, despite significant increases in programming, there appears to be a moderate decline in the service quality/quantity provided over the time period via the operating budget. This does not imply that the services available to the community have declined, but rather that population growth has led to both congestion effects (described above) which impact the quality and availability of these services, and increased costs borne by users, both of which reflect a "quality decline" relatively to initial service levels within this framework. This reduction is sized at minus 5 percent.

Accounting for impacts from inflation, category specific inflation, and service quality changes suggests that population growth is responsible for an increase of approximately 5 percent in Town expenditure needs. Said another way, a 42 percent increase in population led to a 5 percent increase in Community Services expenditure needs for a consistent level of service, after accounting for the effects of inflation, additional category-specific cost increases, and changes in actual service quality and quantity levels. This seems a reasonable magnitude of increase given the nature of the service (matching the preliminary estimate of 5 percent).

To isolate the portion of that increase attributable to UCONN 2000 and UCONN 21st Century, it is important to note that UCONN represented 88 percent of the population growth but probably a lower proportion of cost impact, given that much of the UCONN population increase is in the form of undergraduates, who do not live in the Town year-round and who have many of their service needs taken care of by UCONN itself. Based on an assumption that off-campus UCONN affiliated residents (a mix of students and faculty/staff) represent 75 percent of the cost of a typical Town resident, and on-campus students represent 10 percent of the cost, it is estimated that two-thirds (67 percent) of expenditure growth attributable to population growth is attributable to UCONN. This represents 3.3 percent in growth relative to the 1996 budget level.

To calculate the impact of this increase on the current budget, 3.3 percent of the 1996 budget level is multiplied by cost increases due to inflation and category-specific inflation of 56 percent to reflect the increase costs for maintaining a consistent service quantity and quality level in this category. This results in an attribution of $67,000 in service costs for Community Services attributable to UCONN-affiliated growth in 2014, or $10 per capita for the approximately 6,800 additional UCONN-affiliated residents (see Table 2.17).

TABLE 2.17 – ESTIMATED IMPACT OF UCONN 2000 AND UCONN 21ST CENTURY ON COMMUNITY SERVICES EXPENDITURES

Deconstructing Actual Cost Increase 1996-2014	Apportioning Impact from UCONN 2000/21st Century	Estimated Impact per Capita
Cost Increase: +55% • Inflation: +56% • Category-Specific Increase: +0% • Adjustment for Change in Service Quality/Quantity: -5% • Increase from Population Growth: +5%	UCONN • 67% of impact = • 3.3% increase = • $43,000 in 1996 and $67,000 in 2014	UCONN • $67,000 from UCONN (÷) • 6,800 new UCONN pop = • $10 per new UCONN pop Town • $1.987M budget (÷) • 26,000 pop = • avg cost of $77 per capita

Source: Econsult Solutions

2.9.5. COMMUNITY DEVELOPMENT

Community Development encompasses the Town government provision of inspection, code enforcement and zoning services. It is expected that the expenditure impact of population growth on this expenditure category is high, because service needs appear to be driven largely by new construction activity and rental properties rather than stable family residences, a structure that is due in part to state requirements. This dynamic makes community development a unique expenditure category in which the marginal cost of additional population is significantly higher than the average per population cost in the counter-factual scenario assuming a stable population with no growth.

On-campus student growth is projected to have a very moderate impact on expenditure needs in this category, since it is one of the drivers of demand spurring commercial investment (such as Storrs Center). Off-campus growth associated with the University is expected to have more significant impacts, both as a driver of new construction activity and ongoing rental activity. The relevant population is therefore considered to be the 41% increase in total Town population, and service needs for this category are preliminarily assumed to be about 1.5x that figure, or 60 percent. Deconstructing the 219 percent increase in Community Development expenditures from 1996 to 2014 will determine if that preliminary estimate is reasonable.

As noted above, inflation during this time was 56 percent. Conversation with and data from the Town indicate that there has been a significant increase in service provision in this category by the Town over the past two decades. Specifically, the Town has introduced an ongoing Housing Code Ordinance and inspection program that entails a required maintenance inspection once every two years for each residential rental dwelling unit in the Town, as well as enforcement and documentation related to provisions like off-street parking, septic tanks, etc. The significant increase in off-campus students was the impetus for the creation of this program, and these students are the main driver of service demand. The town estimates that each additional 300 units result in approximately $20,000 per year in additional staff costs. Further, as described in the Public Works section, these students represent a driver of Blight and Nuisance enforcement services, which increase in warmer spring and fall months, costs which are more difficult to quantify. In addition, the Town is required by State law to provide inspection services of new construction, which is largely driven by population growth (both University and non-University affiliated). One full-time inspector is required for each additional $7.5 million in construction value built, at a cost of approximately $100,000 per year.

Construction and off-campus rental growth levels discussed in Section 2.5 of this report suggest that Town costs for the quantifiable aspects of these service needs have therefore grown significantly. Accordingly, the initial estimate of expenditure levels is increased upwards to twice the population growth, or 82 percent. However, the implementation of a systematic inspection program suggests that the Town is likely providing a higher level of service in this category, relative to two decades ago, which must be accounted for within the incremental cost framework employed by this analysis.

Accounting for impacts from inflation and population growth implies that service quality has increased by 12.5 percent, which seems reasonable given the implementation of a new coordinated effort over the time period.

To isolate the portion of population-driven cost increase attributable to UCONN 2000 and UCONN 21st Century, it is important to distinguish between cost growth attributable to on-campus students, which is moderate and reflective only of their influence on overall consumer demand, which in turn drives construction activity to some degree, and cost growth attributable to the off-campus university-affiliated population, which is a lead driver both of residential and rental demand. Based on an assumption that off-campus UCONN affiliated residents (a mix of students and faculty/staff) represent 120 percent of the cost of a typical Town resident, and on-campus students represent just 10 percent of the cost, it is estimated that three-quarters (75 percent) of expenditure growth attributable to population growth is attributable to UCONN. This represents 61.5 percent in growth relative to the 1996 budget level.

To calculate the impact of this increase on the current budget, 55 percent of the 1996 budget level is multiplied by cost increases due to inflation and category-specific inflation of 56 percent to reflect the increase in costs for maintaining a consistent service quantity and quality level in this category. This results in an attribution of $161,000 in service costs for Community Development attributable to UCONN-affiliated growth in 2014, or $24 per capita for the approximately 6,800 additional UCONN-affiliated residents (see Table 2.18)

TABLE 2.18 – ESTIMATED IMPACT OF UCONN 2000 AND UCONN 21ST CENTURY ON COMMUNITY DEVELOPMENT EXPENDITURES

Deconstructing Actual Cost Increase 1996-2014	Apportioning Impact from UCONN 2000/21st Century	Estimated Impact per Capita
Cost Increase: +219% • Inflation: +56% • Category-Specific Increase: +0% • Adjustment for Change in Service Quality/Quantity: +12.5% • Increase from Population Growth: +82%	UCONN • 75% of impact = • 61.5% increase = • $103,000 in 1996 and $161,000 in 2014	UCONN • $161,000 from UCONN (÷) • 6,800 new UCONN pop = • $24 per new UCONN pop Town • $0.536M budget (÷) • 26,000 pop = • avg cost of $21 per capita

Source: Econsult Solutions

2.9.6. TOWNWIDE EXPENDITURES

Townwide Expenditures encompasses the Town government cost for pensions and benefits. As noted above, it is expected that the expenditure impact of population growth on this expenditure category is low, since in many cases growth in Town expenditures from population growth has been driven by cost increases for service provision, rather than an increase in the in employee head count. However, the growth in service needs in the categories described above have led to increases in Town head count in some instances, which likely result in some level of increase attributable to population growth above and beyond inflationary cost factors. This proportion is preliminarily estimated at ¼ of the 41 percent population increase, or 10 percent. Deconstructing the 138 percent increase in Townwide Expenditures from 1996 to 2014 will determine if that preliminary estimate is reasonable.

As noted above, inflation during this time was 56 percent. The US Bureau of Labor Statistics reports that per-hour employee benefits grew by 100 percent during this time, or 44 percent more than inflation. Based on conversations with Town staff, and data on escalating costs for the Town health insurance program, it appears that these costs grew at an even higher rate in the Town. For example, claims within the Town's self-insured health insurance program have increased by an average of 11 percent a year in nominal terms since 1991. Further, Town contributions into the CMERS pension system have increased above long-term averages in recent years to well above 10% of salary and benefits to keep up with pension funding needs. It is therefore assumed that costs for this category grew twice as fast as inflation (112 percent), meaning that category-specific inflation accounts for a 56 percent increase in cost. No service quality or quantity issues relevant to population growth are observed in this category.

Accounting for impacts from inflation, category specific inflation, and service quality changes suggests that population growth is responsible for an increase of approximately 12.5 percent in Town expenditure needs. Said another way, a 41 percent increase in town population led to a 12.5 percent increase in Townwide expenditure needs, which are in effect tied to town personnel levels, after accounting for the effects of inflation, additional category-specific cost increases. This seems a reasonable magnitude of increase, and is in line with preliminary estimates. The Town reports several increases in personnel consistent with this estimate, with the bulk occurring in the first decade of university growth under UCONN 2000 and UCONN 21st Century. For example, Town Parks and Recreation staff expanded with the opening of the new Mansfield Community Center, Building and Housing staff have been expanded in association with the Housing Code Ordinance program, and the Fire and Emergency Services Department has been integrated into the Town, rather than functioning as a separate non-profit.

To isolate the portion of that increase attributable to UCONN 2000 and UCONN 21st Century, it is important to note that UCONN represented 88 percent of the population growth but probably a lower proportion of cost impact, given that much of the UCONN population increase is in the form of undergraduates, who do not live in the Town year-

round and who have many of their public service needs taken care of by UCONN itself, and therefore do not contribute significantly to additional staffing levels. Based on an assumption that off-campus UCONN affiliated residents (a mix of students and faculty/staff) represent 75 percent of the cost of a typical Town resident, and on-campus students represent 10 percent of the cost, it is estimated that two-thirds (67 percent) of expenditure growth attributable to population growth is attributable to UCONN. This represents 8.3 percent in growth relative to the 1996 budget level.

To calculate the impact of this increase on the current budget, 9 percent of the 1996 budget level is multiplied by cost increases due to inflation and category-specific inflation of 112 percent to reflect the increase in costs for maintaining a consistent service quantity and quality level in this category. This results in an attribution of $184,000 in costs for Townwide expenditures attributable to UCONN-affiliated growth in 2014, or $27 per capita for the approximately 6,800 additional UCONN-affiliated residents (see Table 2.19)

TABLE 2.19 – ESTIMATED IMPACT OF UCONN 2000 AND UCONN 21ST CENTURY ON TOWNWIDE EXPENDITURES

Deconstructing Actual Cost Increase 1996-2014	Apportioning Impact from UCONN 2000/21st Century	Estimated Impact per Capita
Cost Increase: +138% • Inflation: +56% • Category-Specific Increase: +56% • Adjustment for Change in Service Quality/Quantity: +0% • Increase from Population Growth: +12.5%	UCONN • 67% of impact = • 8.3% increase = • $87,000 in 1996 and $184,000 in 2014	UCONN • $184,000 from UCONN (÷) • 6,800 new UCONN pop = • $27 per new UCONN pop Town • $2.480M budget (÷) • 26,000 pop = • avg cost of $95 per capita

Source: Econsult Solutions

2.9.7. CAPITAL EXPENDITURES

In addition to the operating budget categories discussed above, and education expenditures discussed below, the Town makes capital investments on an annual basis. Capital expenditures in a typical year are approximately $2.5 million, with significant variation for large one-time investments. Ongoing “base needs” for routine repair and maintenance are estimated by the Town at approximately $2 million annually, with the remainder of the spending characterized as more “discretionary” in nature.

Conversations with and data provided by the Town indicate that the capital budgeting process has changed significantly for the Town over the past two decades. Previously, the Town took a largely opportunistic approach to capital expenditures, applying funding sources such as state transfers via the Pequot/Mohegan Fund to allow for capital

improvements and land acquisition. In recent years, as State dollars have become scarcer, the Town has taken a more systematic approach, adopting a "pay as you go" model for recurring capital projects and initiatives. Under this system, the general fund makes annual allocations to the capital fund, which increase gradually over time, to ensure that forseeable needs (such as replacement of heavy equipment and buildings) are properly prepared for.

The transition in capital investment models for the Town, along with the wide variation in capital spending in the interim years based on the availability of dollars and one-time project needs, means that the capital spending increment attributable to population growth cannot be calculated retroactively in the same manner applied above to the operating budget. This does not imply, however, that population growth does not impact capital expenditure needs. For example, the Town notes that demand for amenities such as sidewalks, walkways and bike paths is largely population driven, and are primarily located in proximity to the University, with several major paths added over the previous two decades. Annual maintenance costs are also driven in part by the volume of traffic (pedestrian, bike and automotive) along them. Road resurfacing needs are also impacted to some extent by the volume of activity on them (although the primary drivers of road repair needs are weather and truck volume). While the main thoroughfares within the Town are managed by the State, some direct activity and diverted traffic from congestion spills over onto local roads. Therefore, increases in University activity are likely to increase the volume of traffic on the local roads, both in terms of cars and, more consequentially from the perspective of maintenance needs, trucks. Finally, replacement rates for equipment and buildings are correlated with usage as well as age, which implies that increases in service calls or building activity will lead to slight accelerations in replacement schedules on the margins, which is important given the significant expense associated with these items.

While calculations of prior impact are complicated by the change in the Town's approach, it is worthwhile to examine the relationship between population growth and capital expenditures moving forward, particularly for "base needs" which increase in a relatively linear fashion with activity, similar to operating budget categories. Estimates of these effects relative to future growth scenarios are provided in Section 4.3.7 of this report. Further, implications for large infrastructure investments above and beyond the base needs are discussed in Section 2.11 of this report.

2.10. EDUCATION EXPENDITURE IMPACTS FROM UCONN 2000 AND UCONN 21ST CENTURY

With education expenditures, a similar approach can be taken to isolate expenditure impacts from population growth. However, knowing enrollment over time provides additional insight into this relationship.

2.10.1. PRE-K TO 8 EDUCATION

As noted above, pre-K to 8 expenditures grew by 91 percent from 1996 to 2014. Since enrollment went down 8 percent, this means that costs per student rose by 108 percent. This makes sense because costs per student go down as enrollment increases, since fixed costs can be spread out over more students, and conversely costs per student go up as enrollment decreases, since fixed costs are spread out over fewer students.

In the Town, enrollment peaked at 1,454 in 1998 and declined to 1,242 by 2014. Those enrollment declines led to rising costs per student, as noted above. At some point, the Town could reduce costs as well as costs per student by reducing the number of classrooms (and thus having fewer teachers on the payroll) or eventually by reducing the number of schools in the Town (through consolidation).

UCONN's contribution of students as a result of its growth may have some relationship on Town pre-K to 8 expenditures. On the one hand, declining enrollment means that the additional pre-K to 8 students from UCONN's growth have been easily absorbed without any increase in classrooms or in schools, and thus the marginal impact of UCONN's pre-K to 8 students is very small. On the other hand, declining enrollment also means that at some point the Town can significantly reduce costs by eliminating classrooms or consolidating schools, and to the extent that UCONN's growth delays that point in time it is contributing to higher Town pre-K to 8 expenditures than otherwise.

Based on information provided by the Town and UCONN, it is estimated that growth generated by UCONN 2000 and UCONN 21st Century produced 137 more pre-K to 8 students in 2014 than in 1996 (see Table 2.20). This works out to an average of four more students per grade per school, or about two more students per classroom within the Town.

TABLE 2.20 –INCREASE IN PRE-K TO 8 POPULATION IN THE TOWN OF MANSFIELD FROM 1996 TO 2014 DUE TO UCONN 2000 AND UCONN 21ST CENTURY

Est New Relevant Households[22]	Pre-K to 8 Student per Household	New Pre-K to 8 Students
596	0.23	137

Source: Town of Mansfield, University of Connecticut

[22] Faculty/staff living within Mansfield and ½ of graduate student households living within Mansfield are estimated to be relevant for the purpose of estimating the school-age population. These households are estimated to contribute to per-K to 8 enrollment at the same rate as the average household within the Town: 0.23 per household (see column 2 of the table).

As noted above, since enrollment has been declining, the marginal cost of absorbing these 137 students is likely to be very small. Essentially, it is the incremental cost of educational and facility supplies for those students, since the vast majority of education expenditures (paying teachers, keeping the buildings open) would have been borne even in the absence of these students.

On the other hand, as noted above if the Town is contemplating school consolidation and UCONN's growth is staving off the point at which that makes sense, then that growth is preventing the significant cost savings from closing a school. From a peak of 1,454 students in 1998, a 25 percent reduction (i.e. the point at which, all else equal, a school district that once had enough capacity to fill four schools now has enough capacity to fill three schools) would be about 1,100 students, which is not far from where the Town is now. To the extent that school consolidation is a real and near possibility, one must account for that when evaluating the impact of new students created by UCONN's growth, as compared to if there was no growth and therefore none of those new students.

For now, it is assumed that consolidation is not happening in the near future so the impact of the new UCONN pre-K to 8 students is merely the marginal cost of their educational and facility supplies. This is estimated to be 10 percent of the $16,700 annual cost per student, which makes UCONN's portion about $228,000: 137 students x $16,700 average cost per student x 10 percent of those average costs are in the form of marginal expenditures like books and bathroom supplies.

To return to the framework used earlier in this section, this figure represents only the financial outlay on the Town from UCONN growth. There is also a slight reduction in the quality and quantity of education levels due to slightly higher class sizes, as compared to if there was no UCONN growth.

2.10.2. 9-12 EDUCATION

The Town pays for 9th to 12th grade students on a per student basis, so there is no need to estimate the marginal effect of adding one more student, since each student costs the Town the same, which is $16,565 per year. Based on information provided by the Town and UCONN, it is estimated that growth generated by UCONN 2000 and UCONN 21st Century produced 14 more 9-12 students in 2014 than in 1996 (see Table 2.21). This means that UCONN 2000 and UCONN 21st Century has led to $235,000 more in 9-12 education expenditures. As noted above, there has also been a slight reduction in the quality and quantity of education levels due to slightly higher class sizes, as compared to a scenario in which there was no UCONN growth.

TABLE 2.21 –INCREASE IN 9-12 POPULATION IN THE TOWN OF MANSFIELD FROM 1996 TO 2014 DUE TO UCONN 2000 AND UCONN 21ST CENTURY

Est New Relevant Households[23]	9-12 Students per Household	Est. New 9-12 Students	Cost per Pupil (2014)	Expenditure Increase
129	0.11	14	$16,565	$235,000

Source: Town of Mansfield, University of Connecticut

Together, it is therefore estimated that enrollment growth from pre-K through 12th grade attributable to UCONN 2000 and 21st Century **resulted in expenditure growth of $463,000 for the Town between 1996 and 2014.**

2.11. INFRASTRUCTURE EXPENDITURE IMPACTS FROM UCONN 2000 AND UCONN 21ST CENTURY

Infrastructure is defined as the collective physical structures and facilities needed for the daily functioning or operation of a community. Relative to this impact assessment, infrastructure is considered to include water, sewer, and the transportation network (including parking). This assessment takes a look at the evolution of demand for infrastructure, and of the response to that demand for infrastructure, in Mansfield as UCONN has grown through the UCONN 2000 and UCONN 21st Century initiatives.[24]

Historical Context

Mansfield has historically relied primarily on on-site wells and septic systems to serve its water and sewer needs. UCONN, as a significant physical presence in the Town, has maintained its own separate water supply system and sewage treatment plant with sewer system to meet campus needs. In 1989, the Town and UCONN entered a water and sewer agreement whereby UCONN extended these services to municipal facilities and senior housing complexes adjacent to campus.

[23] Faculty/staff living within Mansfield are considered relevant for estimating high school enrollment, but graduate students are not. Faculty/staff households are estimated to contribute to grades 9-12 enrollment at the same rate as the average household within the Town: 0.11 per household (see column 2 of the table).

[24] This exercise is necessarily less precise in its calculations than others in this report, but rather seeks to develop a categorical understanding of past infrastructure needs within the Town and the degree to which UCONN 2000 and UCONN 21st Century materially contributed to them, above and beyond on-campus needs that the University provided by and for itself. This exercise offers insights as to how demand for infrastructure may change in the future with any growth driven by NextGenCT, which is covered more thoroughly in Section 4.4 It is important to note that in looking forward, current infrastructure capacity levels (which are in part driven by responses to previous growth) must be considered to understand the extent to which the Town can absorb more growth at current infrastructure investment levels or will need to absorb more cost as demand increases.

Similarly, over time UCONN expanded or enhanced its own internal network of roads, sidewalks, and paths as it grew. The UCONN transportation network intersects with state and local roads, yet the three roadway types remain separately maintained and improved by each entity. It is notable, however, that daily commuting traffic to and from the UCONN campus has been common due to sustained low density development patterns in Mansfield (thus limiting nearby housing options) as well as the fact that UCONN has many satellite facilities. Furthermore, the Town has typically offered free parking in its municipal lots, and some UCONN students and faculty have capitalized on this resource, causing a strain on available space for municipal uses. Thus, the presence of UCONN historically has created the possibility of contributing to more heavily utilized roads and parking concerns off-campus.

In terms of infrastructure, UCONN 2000 focused on renewing and improving existing systems, while UCONN 21st Century has focused more on enhancing the Storrs campus and adding to its capacity. An overview of how infrastructure needs for Mansfield have changed relative to University growth under UCONN 2000 and UCONN 21st Century follows.

Water and Sewer

During the past 20 years, most Town residents and businesses have continued to utilize on-site wells and septic systems as their primary water source and for sewage disposal. The infrastructure influences on the Town from UCONN growth under UCONN 2000 and 21st Century have been limited as a function of both UCONN campus resource management efforts and Town land use and development policy.

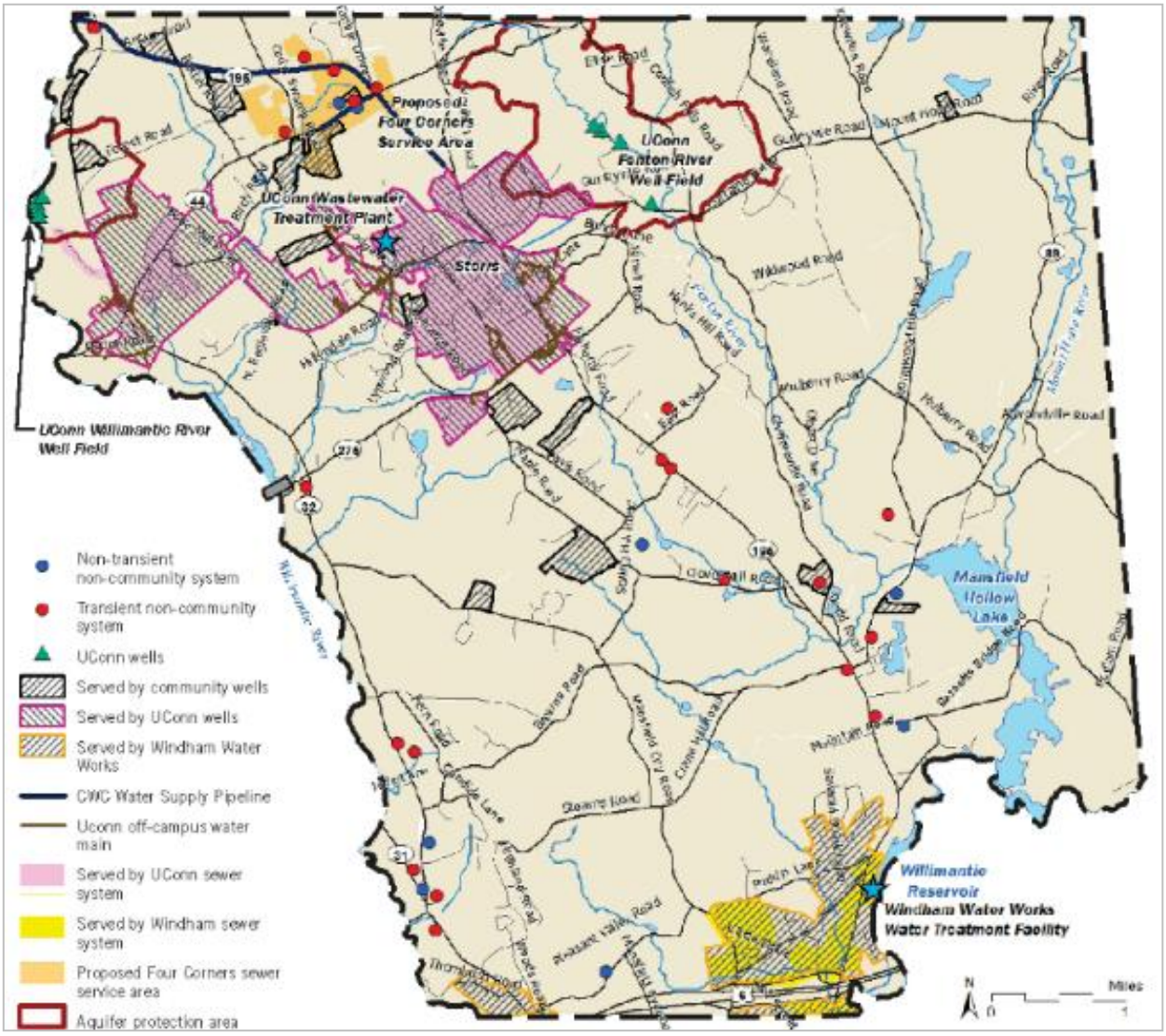
As the Town has successfully implemented its community vision to maintain its rural character while steering economic development to a limited number of desired growth locations, this has also had the effect of constraining change in the need for water and sewer infrastructure outside of current service areas. As a result, the infrastructure needed by Mansfield to meet community demand outside of those growth areas has remained relatively consistent during the period of UCONN's growth program from 1995 to 2014.

However, UCONN's own growth within Mansfield resulted in rising demand and therefore water supply issues. In response, UCONN developed a water conservation plan in 2011 in partnership with the Connecticut Department of Energy & Environmental Protection (DEEP), and subsequently worked with the Town and with Connecticut Water Company (CWC) to resolve those issues. The Town and UCONN each now have separate agreements with CWC for water supply.

The other notable change has been that the sewer infrastructure costs borne by Mansfield have grown somewhat in the past five years due to the provision of sewer lines to Storrs Center and the extension of sewer service to the "Four Corners" site. These two locations have been identified by the Town as targeted growth areas for economic

development, and the activity at those locations has already expanded (in the case of Storrs Center) or is expected to (Four Corners) expand the tax base for the Town. On one level, growth by UCONN contributed to these increased infrastructure needs, since it is UCONN's presence that has driven demand for activity in these locations. However, those costs have been incurred at the discretion of the Town, which has absorbed them as an investment to realize the economic opportunity and attendant revenue benefits from that growth. It is therefore appropriate that the Town has taken responsibility for these costs.

FIGURE 2.8– WATER AND SEWER USE IN THE TOWN OF MANSFIELD



Sources: Town of Mansfield, Connecticut Water Company

Transportation

Anecdotal evidence based on interviews with Town and University staff has suggested that as the University has grown, commuter traffic and multimodal demand on the local transportation network has grown. UCONN has continued to expand and enhance its internal network of roads, sidewalks, and paths over time to meet its growth plans. Additionally, UCONN has increased on-campus parking opportunities to reduce the occurrence of spill-over parking on Town maintained lots.

However, as usage of the state routes that lead to the Storrs campus has grown, the Town reports that some local streets, such as Westwood Road, have become cut-through routes used by travelers to avoid traffic on Routes 32 and 195. The scope of this report did not allow for a more detailed engineering analysis of this issue, but if true, these traffic patterns may have negative quality of life implications for the Town (including increased concern for pedestrian and bicycle safety, which may increase the strain on the Town's emergency and public safety systems) as well as expenditure implications (from a slight acceleration of maintenance and replacement rates, as discussed in Sections 2.9.7 and 4.3.7). UCONN has taken steps to mitigate cut-through traffic by providing and planning for new roadway connections, thus reducing impacts on residential streets, a point that is taken up further in Section 4.4.

As it relates to public transportation, an agreement was reached among the Windham Regional Transit District (WRTD), UCONN, and the Town to offset the growing cost of transit services. UCONN currently pays 50 percent of the service fee cost for use of the system, while UCONN users represent over 80 percent of ridership. UCONN-driven demand for reliable transit service is likely to increase over time, as students increasingly seek non-automobile forms of transportation. Furthermore, reliable service is limited, especially to and from satellite campuses and employment centers in Manchester and Hartford.

Pedestrian and bicycle resources are important in Mansfield, for permanent residents as well as for the UCONN population. The Town's bicycle network consists of a network of north-south routes connecting UCONN with the Town of Tolland to the north and the Village of Willimantic to the south. Furthermore, the Town has provided an extensive network of off-road bicycle and pedestrian paths around campus. These investments are largely driven by demand generated by the UCONN population.

Roadway features in the Town are generally suitable for shared bicycling (wide paved shoulders for example), with the most notable exceptions being Routes 44, 195, and 6. Sidewalks and crosswalks are by in large absent from most residential streets in Mansfield; however, they are abundant on the Storrs campus. Mainly, University versus non-University bicycle and pedestrian amenities have remained separate and distinct from one another. As the number of students and faculty has grown at UCONN, this disparity has been a growing concern for Mansfield as there are more pedestrians traveling on foot from the campus to off-campus destinations and walking in unsafe

pedestrian environments. Opportunities exist to explore improvements to the University and non-University bicycle/pedestrian interface, which are discussed further in Section 5.

Summary

Largely, growth by UCONN through the UCONN 2000 and UCONN 21st Century initiatives has created some additional sewer and water infrastructure needs within the Town. However, that which has occurred on the Storrs campus is the responsibility of UCONN, while that which has occurred off-campus has taken place in selected growth areas within the Town. Section 4 will address what additional growth from this point forward will mean for the Town in terms of being able to accommodate the increased sewer and water demand in these selected growth areas and in terms of mitigating the increased impact on transportation infrastructure that will result.

2.12. SUMMARY AND IMPLICATIONS

Stepping through the economic, fiscal, as well as service, education, and infrastructure expenditure impacts from UCONN 2000 and UCONN 21st Century serves two purposes. First, it provides a sense of what UCONN growth has meant for the Town of Mansfield in terms of **net new economic activity, government revenue, and operating expenditures** over the past 20 years. Second, it provides **a framework and guidance for extrapolating impacts** on the Town from the implementation of NextGenCT over the next 10 years.

UCONN growth from 1996 to 2014 has had a number of effects on the Town:

1. On the economic impact side, $1.88 billion in capital investments is estimated to have produced almost $2 billion in expenditure impact within the Town, generating $635 million in labor income and supporting almost **600 jobs per year**. A 64 percent increase in UCONN's direct operating expenditures within the Town now means that UCONN's presence in the Town produces an estimated $525 million more in annual expenditure impact, supporting **1,000 more jobs**. It is also estimated that there is $42 million more in student spending taking place in the Town, supporting **an additional 215 jobs** in the Town (see Table 2.22).

2. On the fiscal impact side, UCONN growth has catalyzed new development as well as increased demand at existing properties. The increases in assessed value new subdivisions and student housing complexes alone sum to an estimated $63 million, yielding $1.3 million more in property tax revenues to the Town per year. The development of Storrs Center, clearly attributable to university-related

demand, has a net fiscal benefit[25] of nearly $200,000 in FY 2014, a figure that will grow as development is completed. In addition, the Town's annual PILOT payment from the state has increased by an estimated $3.7 million a year as a result of the growth in state-owned property value (despite underfunding relative to statutory levels). Together these increases sum to **more than $5 million in additional annual tax revenue** from these sources alone (see Table 2.23).

3. On the service expenditure side, UCONN growth has resulted in across-the-board increases in Town expenditure categories, with the largest increases occurring in the Public Safety category. Accounting for inflation, is estimated that **UCONN growth meant approximately $1.07 million more in Town expenditures** in 2014 than in 1996. On the education expenditure side, it is estimated that UCONN growth has meant approximately 150 more students, with **an estimated increase in pre-K to 8 and 9-12 education expenditures of $460,000** from 1996 to 2014. **Together, service and education expenditures are estimated to have increased by $1.53 million annually** from 1996 to 2014 (see Table 2.24).

TABLE 2.22 – SUMMARY OF ESTIMATED ECONOMIC IMPACT FROM UCONN 2000 AND UCONN 21ST CENTURY ON THE TOWN OF MANSFIELD FROM 1996 TO 2014

Impact Category	Estimated Increase in UCONN Activity Level in Mansfield, 1996-2014	Estimated Town Annual Economic Impact	Estimated Increase in Annual Employment Impact
Capital Investment	$1.9 billion total	$103M	570 jobs
Operating Expenditures	$445 million per year	$525M	1,040 jobs
Student Spending	$42 million per year	$28M	215 jobs
TOTAL		**$656M**	**1,825 jobs**

Source: Econsult Solutions

TABLE 2.23 – SUMMARY OF ESTIMATED FISCAL IMPACT FROM UCONN 2000 AND UCONN 21ST CENTURY ON THE TOWN OF MANSFIELD FROM 1996 TO 2014

Fiscal Impact Category	Estimated Increase in Assessed Value (in $ 2014)	Revenue Implications	Estimated Annual Revenue Impact
Property Tax Base from Student Apartment Complexes and new Subdivisions	$47 million	Increase in Property Tax collections	$1.29M
Storrs Center	$78 million	Increase in Property tax collection net of Town expenses/abatements	$0.17M
State-Owned Property (PILOT)	$629 million	Increase in State PILOT payment	$3.74M
TOTAL			**$5.20M**

Source: Econsult Solutions

[25] As noted in Section 2.5, this calculation accounts for abatements and operating costs for FY 2014, and will grow over time as development continues.

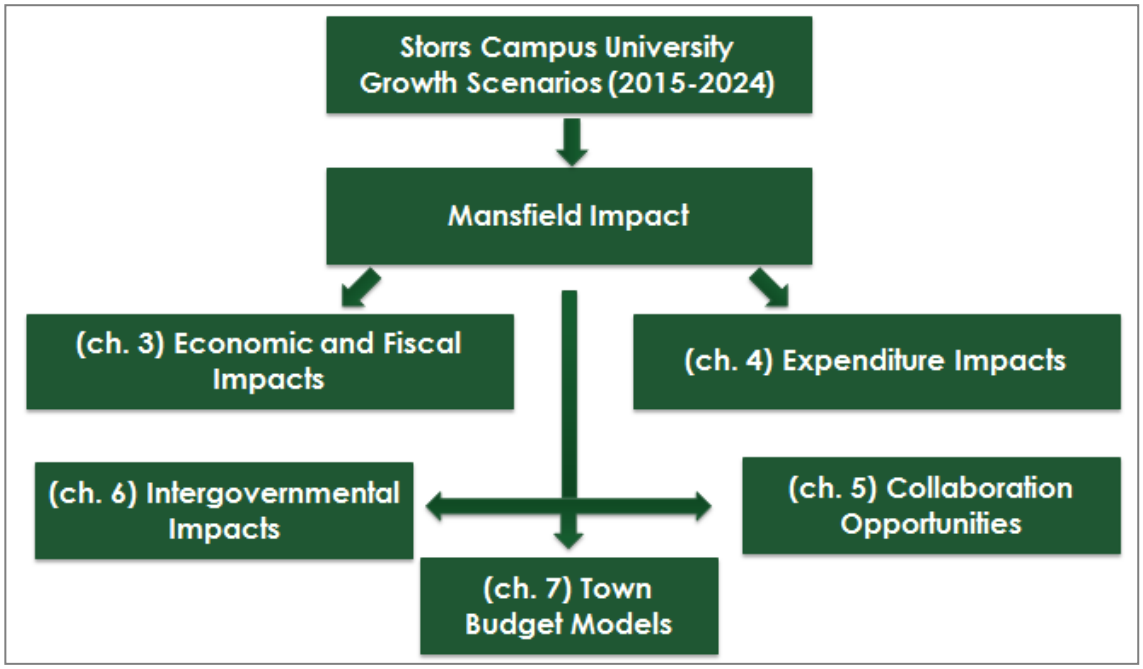
TABLE 2.24 – SUMMARY OF ESTIMATED SERVICE AND EDUCATION EXPENDITURE IMPACT FROM UCONN 2000 AND UCONN 21ST CENTURY ON THE TOWN OF MANSFIELD FROM 1996 TO 2014

Service Expenditure Category	Est. Annual Cost Increase Associated w/ UCONN Growth	Estimated Cost per new UCONN Population
General Government	$55,000	$8
Public Safety	$481,000	$71
Public Works	$118,000	$17
Community Services	$67,000	$10
Community Development	$161,000	$24
Townwide Expenditures	$184,000	$27
Service Expenditure Total	**$1,066,000**	
Education Expenditure Category	**Est. Annual Cost Increase Associated w/ UCONN Growth**	**Est. Cost per Relevant new UCONN Household**
Pre K to 8	$228,000	$383
9 to 12	$235,000	$1,822
Education Expenditure Total	**$463,000**	
Education + Service Expenditure Total	**$1,529,000**	

Source: Econsult Solutions

This historical look at impacts from UCONN 2000 and UCONN 21st Century also aids in understanding what impacts might result from the implementation of NextGenCT. That is the subject of the remainder of the report (see Figure 2.9).

FIGURE 2.9 – FLOW CHART OF IMPACTS FROM NEXTGENCT



3. ECONOMIC AND FISCAL BENEFITS FROM NEXTGENCT

3.1. OVERVIEW

The purpose of this section is to estimate positive economic and fiscal impacts to the Town from the implementation of NextGenCT between 2015 and 2025. The investment and growth envisioned by UCONN during this time will create economic activity within the Town, supporting jobs and generating local government revenue. This section uses similar analytical techniques as described in Section 2.

3.2. ABOUT NEXTGENCT

NextGenCT is currently projected to involve a capital investment of just under $1.4 billion at the Storrs Campus, out of a total capital investment of $1.54 billion. It is anticipated that, unlike capital expenditures undertaken during UCONN 2000 and 21st Century, which focused on significant investments in new buildings, NextGenCT will balance such investments with others such as infrastructure replacement, equipment purchasing and signage improvements.

UCONN's Master Plan[26] presents three scenarios for undergraduate student enrollment and faculty employment at the University by 2025, including one in which 1,000 FTE students are added and another in which 5,000 FTE students are added (see Table 3.1). It is essential to note that these scenarios do not represent projections of future enrollment or employment on the part of the University. Rather, they are scenarios utilized from a planning perspective to project potential space needs. Actual enrollment and staffing will be decided on an ongoing basis, and are tied partly to the annual state appropriations process, which operates independently from the state funding provided for NextGenCT. This report does not take a position on the likelihood of any of the three scenarios below, nor does it suggest that they are the only possibilities. Like the Master Plan, this report does use the growth scenarios below as an illustrative example to analyze the potential impacts of students and staff growth. Implications from University growth for the Town will need to be revisited on an ongoing basis as the character and magnitude of those increases becomes known. The Town budget model developed within Section 7 of this report provides a tool to update this analysis on an ongoing basis as more information becomes available.

[26] The University of Connecticut Draft Campus Master Plan for the years 2015-2035 was accepted by the Board of Trustees on February 25, 2015. The Final Campus Master Plan is currently being prepared for publication and distribution.

TABLE 3.1 – NEXTGENCT UNDERGRADUATE ENROLLMENT AND FACULTY STAFF GROWTH SCENARIOS FOR FY 2025

Scenario	Storrs Campus Undergraduate Student FTE	Storrs Campus Faculty/Staff FTE
Existing (Fall 2013)	20,386	4,620
+ 1,000 Students	21,500	4,824
+ 5,000 Students	25,500	5,748

Source: UCONN Storrs Campus Master Plan

It is important to note that the student increase in the scenarios presented in the plan consist entirely of undergraduate students. Therefore, scenarios modeled within this report assume no graduate student growth. Further, modeling assumes that the current proportion of undergraduates living on campus (approximately 70%) will remain constant as enrollment grows.

UCONN does not produce a projection of annual operating budgets for future years. As noted above, annual funding is subject to legislative appropriation and therefore can be difficult to predict. The methodology taken by this report to estimate future operating levels, and thus their economic impacts, is to discern the past relationships between university employment, enrollment, and operating budgets, and to use those relationships to project two potential operating budgets for FY 2025 based on the growth scenarios outlined above in Table 3.3.

Table 3.2 shows the net growth in direct employment, student enrollment, and operating spending at the Storrs campus between FY 1996 and FY 2014.[27] Over this period, direct employment increased 19 percent, FTE enrollment increased 73 percent, and the operating budget increased 64 percent. This implies that operating budget increases are much more heavily correlated with FTE enrollment growth than direct employment growth. This blended growth model can then be applied to the established student and employee growth scenarios to develop estimated operating budget growth for FY 2025 (in constant dollars).[28]

[27] All figures match those calculated and explained in Section 2 of this report.

[28] While NextGenCT may differ from UCONN 2000 and UCONN 21st Century in the types of capital investments made and the reasons for making them, it is assumed that the relationship between increases in operating activity levels (e.g. staffing, enrollment) and operating budget are relatively consistent over time.

TABLE 3.2 – RELATIONSHIP BETWEEN GROWTH IN UCONN STORRS CAMPUS OPERATING BUDGET, DIRECT EMPLOYMENT AND FTE ENROLLMENT, FY 1996-2014

Category	Direct Employment	FTE Enrollment	Operating Budget (2014 $M)
FY 1996	3,450	11,800	$665
FY 2014	4,100	20,400	$1,093
Net Increase 1996-2014	650	8,600	$428
% Increase	19%	73%	64%
Implied Weight	(1/6)	(5/6)	

Source: Econsult Solutions based on UCONN Data

It should be noted that NextGenCT has a stated goal of significantly increasing research activity at UCONN, above and beyond general increases in activity, enrollment, or staff. UCONN's FY 2014 operating budget includes $102 million for research. Projections for FY 2025 assume a $200 million budget for research, a near doubling of current levels, consistent with the goals of NextGenCT. To be conservative, this projection is considered the high-end estimate, and no growth in research activity (i.e. a research budget holding steady at $102 million) is considered the low-end estimate.

Table 3.3 projects the UCONN operating budget for FY 2025 for the low-end scenario. **Operating spend is projected to increase by 5 percent to approximately $1.2 billion** (in constant terms). Table 3.4 projects the UCONN operating budget for FY 2025 for the high-end scenario. Operating spend is projected to increase by 32 percent to approximately $1.5 billion (in constant terms). As noted above, actual operating expenditure levels are heavily dependent on State budget decisions and are therefore unknown at this time.

TABLE 3.3 – ESTIMATED STORRS CAMPUS OPERATING BUDGET GROWTH, FY 2014 – 2025: LOW-END SCENARIO OF +1,000 STUDENTS AND NO CHANGE IN RESEARCH BUDGET (IN $2014 MILLIONS)

Category	Direct Employment	FTE Enrollment	Estimated Non-Research Operating Budget (2014 $M)	Estimated Research Budget (2014 $M)	Estimated Total Operating Budget (2014 $M)
FY 2014	4,100	20,400	$1,036	$102	$1,138
FY 2025	4,385	21,500	$1,096	$102	$1,198
Net Increase 2014-2025	285	1,100	$59	$0	$59
% Increase	7%	5%	6%	0%	**5%**
Implied Weight	(1/6)	(5/6)			

Source: Econsult Solutions based on UCONN Data

TABLE 3.4 – ESTIMATED STORRS CAMPUS OPERATING BUDGET GROWTH, FY 2014 – 2025: HIGH-END SCENARIO OF +5,000 STUDENTS AND A NEAR-DOUBLING IN RESEARCH BUDGET (IN $2014 MILLIONS)

Category	Direct Employment	Estimated FTE Enrollment	Estimated Non-Research Operating Budget (2014 $M)	Estimated Research Budget (2014 $M)	Estimated Total Operating Budget (2014 $M)
FY 2014	4,100	20,400	$1,036	$102	$1,138
FY 2025	5,225	25,500	$1,301	$200	$1,501
Net Increase 2014-2025	1,125	5,100	$256	$98	$362
% Increase	25%	28%	26%	95%	**32%**
Implied Weight	(1/6)	(5/6)			

Source: Econsult Solutions based on UCONN Data

Increases in enrollment would also drive increases in off-campus student spending within the Mansfield economy.[29] Using the model of local student spending developed in Section 2.4 of this report, it is possible to project that the net impact of additional student spending that would result from 1,000 more students would be about $10 million more (Table 3.5), and +5,000 additional students would produce about $22 million more in spending (see Table 3.6).

TABLE 3.5 – ESTIMATED INCREASE IN ANNUAL NON-CAMPUS UCONN STUDENT SPENDING WITHIN MANSFIELD, FY 2014 – 2025: LOW-END SCENARIO OF +1,000 STUDENTS AND NO CHANGE IN RESEARCH BUDGET (IN $2014 MILLIONS)

	Total Student FTE	Total Spend	Housing	Food	Transport ation	School Supplies	Other
FY 2014	20,400	$72.7	$38.8	$15.2	$1.0	$1.7	$16.0
FY 2025	21,500	$82.4	$40.2	$19.2	$1.0	$1.8	$20.2
Net Increase 2014-2025	1,100	$9.7	$1.4	$3.9	$0.0	$0.1	$4.3
% Increase	5%	**13%**	4%	26%	5%	6%	27%

Source: Econsult Solutions based on UCONN Data

[29] I.e. assuming the same proportions of capture of student spending within Mansfield versus other nearby towns.

TABLE 3.6 – ESTIMATED INCREASE IN ANNUAL NON-CAMPUS UCONN STUDENT SPENDING WITHIN MANSFIELD, FY 2014 – 2025: HIGH-END SCENARIO OF +5,000 STUDENTS AND A NEAR-DOUBLING IN RESEARCH BUDGET (IN $2014 MIL)

	Total Student FTE	Total Spend	Housing	Food	Transport ation	School Supplies	Other
FY 2014	20,400	$72.7	$38.8	$15.2	$1.0	$1.7	$16.0
FY 2015	25,500	$94.2	$45.2	$21.7	$1.1	$2.2	$24.0
Net Increase 2014-2025	5,100	$21.6	$6.5	$6.4	$0.2	$0.4	$8.1
% Increase	25%	**30%**	17%	42%	19%	25%	50%

Source: Econsult Solutions based on UCONN Data

3.3. LOCAL ECONOMIC GAINS

The growth scenarios related to the implementation of NextGenCT described in Section 3.2 have implications for economic activity levels within the Town of Mansfield. This section models the potential impacts of those increases on the local economy, just as Section 2.4 modeled the economic impact within the Town from capital expenditures, operating expenditures growth, and student spending growth over the past two decades associated with UCONN 2000 and UCONN 21st Century.

The following inputs were modeled in terms of their impact on the Mansfield economy, as described in Section 3.2. It is important to reiterate that these forecasts represent a planning exercise, rather than a forecast of anticipated activity, and actual outcomes may vary significantly in their actual implementation, especially since the University's ability to expand its enrollment and operating levels is dependent on the annual State appropriations process.

- *Capital Expenditures*: NextGenCT is currently anticipated to involve a direct capital expenditure of $1.385 billion at the Storrs campus. Capital spending plans are currently being considered by the UCONN Board of Trustees, and projects may shift as conditions change over the next decade. However, this spending level represents the only publicly released estimate from UCONN, and therefore is the amount modeled in this analysis

- *Increase in Operating Expenditures:* While UCONN has not projected an increase in annual operating expenditures associated with NextGenCT, operating expenditure levels at the Storrs campus can be modeled for various enrollment and faculty/staff growth scenarios based on past relationships between enrollment, staffing and operating expenditures (see Section 3.2). [30] Operating budget

[30] As will be discussed later in this report, the actual proportion of residential growth and related activity captured by Mansfield as opposed to occurring in other nearby towns is partly a matter or preference on the part of UCONN people as to where they want to live and spend money,

increases of 5 percent and 32 percent above current levels are modeled based calculations from the given enrollment and staffing growth scenarios for NextGenCT.

- *Increase in Student Spending:* The student spending model estimates developed in Section 2.4 to quantify the impact of increased enrollment on local non-campus student spending can be adapted to quantify the impact of the potential enrollment growth scenarios (see Section 3.2), incorporating a continued increase in student spending capture within the Town based on anticipated increases in retail options. Annual non-campus student expenditure increases of 13 percent and 30 percent above current levels are modeled based on calculations from the given enrollment growth scenarios for NextGenCT.

Table 3.7 shows the projected economic impact within the Mansfield economy for each of the categories described above (see Section 2.4 and Appendices B and D for a fuller discussion of economic impact methodology).

- **Capital spending is projected to increase total economic output within the Town by approximately $1.4 billion**, and to support nearly 8,000 job-years (approximately 800 per year) with a total labor income of nearly $470 million.

- **Increases in annual operating expenditures are estimated to increase economic output within the Town by $70 million to $420 million**, and to generate 125 to 1,500 additional jobs.

- **Increases in annual student non-campus expenditures are estimated to increase economic output within the Town by $6 to $14 million**, and to generate 30 to 90 additional jobs

and partly a matter of preference on the part of Mansfield as to whether and where they desire to accommodate UCONN growth and whether and how much they can invest in any needed infrastructure to make accommodating that growth possible.

TABLE 3.7 – PROJECTED ECONOMIC IMPACT SCENARIOS WITHIN THE TOWN OF MANSFIELD FROM DIRECT CAPITAL INVESTMENTS AND NET INCREASES IN STORRS CAMPUS OPERATIONS AND STUDENT SPENDING ASSOCIATED WITH NEXTGENCT, 2015 - 2025

	Direct Impacts ($2014 M)	Indirect + Induced Impacts ($2014M)	Total Expenditure Impact ($2014 M)	Employment Supported (Jobs)	Labor Income Supported ($2014 M)
Capital Expenditures	$1,385	$59	$1,444	7,960	$468
Est. Increase in Operating Expenditures	$60 – $360	$10 – $60	$70 – $420	125 – 1,500	$25 – $184
Est. Increase in Student Spending in Mansfield	$5.9 – $13.3	$0.2 – $0.4	$6.0 – $13.7	30 – 90	$0.7 – $1.6

Sources: Econsult Solutions, IMPLAN, UCONN Storrs Campus Master Plan

It is useful to compare these anticipated impacts from NextGenCT over the next decade to the observed economic impacts from UCONN 2000 and UCONN 21st Century over the past two decades (as estimated in Section 2.4) to provide a frame of reference. Table 3.8 compares impacts across the major categories articulated in this report. These comparison results are consistent within the relative differences between UCONN 2000 and UCONN 21st Century on the one hand, and NextGenCT on the other hand, the former providing larger increases in staffing and enrollment and the latter making larger per year investments in infrastructure and renovation.

- Economic impacts within the Town from capital expenditures are expected to be slightly lower from NextGenCT than from UCONN 2000 and UCONN 21st Century. It is important to note, however, that impacts will be condensed within a 10-year time frame, meaning that they are projected to be higher on an annualized basis.

- Economic impacts within the Town from increases in operations are projected to be lower under NextGenCT than UCONN 2000 and UCONN 21st Century. However, there is a wide range of outcomes within this projection, due to the high degree of uncertainty in forecasting future operating budgets for the University.

- Expected increases in both the number of UCONN students and the number of retail options available to them within the Town should lead to additional student spending within the Town, generating some economic impacts within the Town although aggregate impact levels are modeled to be lower than which occurred during UCONN 2000 and UCONN 21st Century since those initiatives added many more students.

TABLE 3.8 – COMPARISON OF ESTIMATED ECONOMIC IMPACT FROM UCONN 2000 AND 21ST CENTURY WITH POTENTIAL ECONOMIC IMPACT OF NEXTGENCT WITHIN THE TOWN OF MANSFIELD

	Total Expenditure Impact ($2014 M)		Employment Supported (Jobs)		Labor Income Supported ($2014 M)	
	UCONN 2000/21st Century (1996-2014)	NextGenCT (2015-2025)	UCONN 2000/21st Century (1996-2014)	NextGenCT (2015-2025)	UCONN 2000/21st Century (1996-2014)	NextGenCT (2015-2025)
Capital Expenditures	$1,961	$1,444	10,810	7,960	$635	$468
Est. Increase in Operating Expenditures	$525	$70 – $420	1,040	125– 1,500	$120	$25– $184
Est. Increase in Student Spending in Mansfield	$27.8	$5.9 –$13.3	215	30 – 90	$2.8	$0.7 – $1.6

Sources: Econsult Solutions, IMPLAN, UCONN Storrs Campus Master Plan

It is important to note that the categories reflected above do not capture the entirety of the economic impact from NextGenCT within the Town. Most notably, the STEM focus of NextGenCT may yield additional spin-off research activity, some of which may be captured within the Town. The magnitude of these impacts, both overall and within the Mansfield economy, is unknown at this time, but could potentially result in increases in economic output, employment and labor income within the Town. Indeed, the Town's *Mansfield Tomorrow* plan expresses an interest in encouraging and capturing new economic activity from greater research efforts at UCONN.

What is hard to predict at this juncture is the effect of NextGenCT on research activity levels at UCONN, the magnitude of any resulting increase in demand for office and laboratory space by spinoff startup ventures, and the interest level of those companies to choose locations within the Town. Based on information provided by UCONN's Technology Transfer Center, UCONN faculty generate about 35 startup ventures each year, although some are virtual and do not require physical space. If NextGenCT increases the business formation rate, and firms choose locations within the Town, this will result in new economic activity and greater economic impact within the Town. No such impact is quantified in this report but this is an area worthy of ongoing attention.

3.4. LOCAL FISCAL GAINS

The increase in activity projected to be generated in the Town due to NextGenCT also is anticipated to result in tax base increases for the Town. As noted in Section 2.5, the Town's reliance on property tax as its primary locally-generated funding mechanism limits

the categories of increased activity that bear on the Town's fiscal position.[31] However, just as growth associated with and enabled by UCONN 2000 and UCONN 21st Century led to significant, quantifiable increases in the Town's property tax base, growth associated with NextGenCT would be anticipated to have similar effects moving forward.

This section estimates the magnitude of such effects using a simple ratio analysis, which projects the observed effects of university growth on the Town tax base over the past two decades to be repeated on a per capita basis in applicable categories given different scenarios of NextGenCT growth described above. While this approach provides a baseline for understanding potential impacts, two important caveats should be noted:

1) To the extent that investments within NextGenCT are different in character than those of UCONN 2000 and 21st Century, its relationship to incremental Town tax revenues may vary from the observed relationship over the past two decades. This variable is partly accounted for by utilizing growth in university-affiliated population (from enrollment and faculty/staff) as the relevant driver in tax base growth, rather than capital investments associated with the program. However, it is possible that the additional research activity envisioned within NextGenCT could have significant commercial activity impacts, which may be captured to some extent within the Town (see discussion below). These potential impacts are not calculated within this analysis.

2) The degree to which the Town desires to and can successfully capture growth associated with NextGenCT is unknown, and is therefore estimated to remain in ratio with the growth capture observed within the capture rate observed during the past two decades. Should the Town ultimately capture a greater or lesser proportion of residential growth (due to a variety of factors including choices by both the Town and individual residents), tax base impacts would vary from those calculated below. In addition, as mentioned above, should the Town capture growth in commercial activity associated with NextGenCT, it may have tax revenue impacts not calculated below.

As reviewed in Section 2.5, data provided by the Town indicates that major student apartment complexes showed an increase in aggregate property value of 39 percent above and beyond inflation between 1995 and 2014. This increase is associated with the off-campus housing demand increase of approximately 67 percent during this time period. This relationship can be translated to estimate potential property value impacts from the off-campus demand implied by the student enrollment growth scenarios associated with NextGenCT:

[31] For example, tax base increases associated with business activity, earnings (wage tax) and expenditures (sales tax) will accrue primarily at the state level, rather than locally.

- The low-end enrollment growth scenario is projected to produce an increase of approximately 4 percent in off-campus student population. Using the observed ratio from the past two decades, this growth is calculated to produce an increase in value of student housing complexes of 2 percent above and beyond inflation, or $800,000.

- The high-end enrollment growth scenario is projected to produce an increase of approximately 17 percent in off-campus student population. Using the observed ratio from the past two decades, this growth is calculated to produce an increase in value of student housing complexes of 10 percent above and beyond inflation, or $4 million.

In addition, as described in Section 2.5 the growth in UCONN off-campus housing demand (both from students and faculty/staff) has contributed to the demand for new housing in the Town, and to the construction of 435 lots in new sub-divisions over the past two decades. This observed ratio between population and housing can similarly be applied to scenarios for NextGenCT growth to calculate an estimate of new housing units in the Town, from new sub-divisions alone, associated with university growth:

- The low-end population growth scenario is projected to produce an increase of approximately 3 percent in university-affiliated households. Based on the past relationship described in Section 2.5 with a conservative allocation of 50 percent of new construction as UCONN-affiliated, this increase would be anticipated to yield approximately 20 new sub-division lots,[32] at an estimated net assessed value increase of approximately $2.9 million.

- The high-end population growth scenario is projected to produce an increase of approximately 9 percent in university-affiliated households. Based on the past relationship described in Section 2.5 with a conservative allocation of 50 percent of new construction as UCONN-affiliated, this increase would be anticipated to yield approximately 60 new sub-division lots, at an estimated net assessed value increase of approximately $8.8 million.

Using the assumptions detailed in Section 2.5 and a current millage rate of 27.95, the property tax base impacts described above alone are estimated to result in approximately $100,000 to $360,000 in annual tax revenue for the Town (see Table 3.9).

[32] This is not to suggest that the only growth in the off-campus faculty and staff population living in the Town will take place in new sub-division lots, since some faculty and staff may choose single-family homes or apartment units, but rather to provide a reasonable estimate of the magnitude of increase in faculty and staff population living in the Town as informed by past growth levels.

TABLE 3.9 – ESTIMATED INCREASE IN PROPERTY TAX BASE WITHIN THE TOWN OF MANSFIELD ATTRIBUTABLE TO UCONN GROWTH, FY 1996 TO FY 2014 (IN $2014)

Student Apartment Complexes	Value
FY 2014 Assessed Value ($2014M)	$39.7
Est. Value Growth Range attributable to NextGenCT	2% - 10%
Est. Increase in Assessed Value attributable to NextGenCT ($2014M)	$0.80 - $3.97
New Subdivisions	**Value**
Est. Demand Range attributable to NextGenCT (lots)	20 – 60
Est. Net Increase in assessed value per lot	$146,000
Est. Increase in Assessed Value attributable to NextGenCT ($2014M)	$2.92 - $8.77
Total	**Value**
Est. Range of Increase in Assessed Value ($2014M)	**$3.7 - $12.7**
Est. Net Tax Revenue Growth ($2014)	**$104,000 - $356,000**

Source: Econsult Solutions using Town of Mansfield data

It is important to note that while the analysis of fiscal impacts attributable to University growth under UCONN 2000 and UCONN 21st Century included significant property tax base impacts associated with the construction of the mixed-use Storrs Center complex, no such large scale development is envisioned within these calculations. This does not preclude the possibility of such a development – indeed the Town is already making preparations for the possibility of increased development on the Four Corners area north of campus, consistent with its new plan of conservation and development (*Mansfield Tomorrow*).[33] While these impacts are not considered directly attributable to NextGenCT within the framework developed here, it certainly would not be possible without University growth past and future.

The degree to which the Town desires to and makes provisions to capture private sector growth capitalize on private sector development opportunities associated with NextGenCT will be a crucial determinant to the ultimate fiscal impact of the program within the Town. Whether the Town chooses to make space for new residential units will determine the amount of UCONN population growth that is captured within the Town and that therefore increases the Town's property tax base. And, where the Town chooses to make space for new residential units will also matter, since new population growth concentrated in distinct locations proximate to campus differs from new population growth

[33] Town projections envision a mixed-use complex including retail, residential, office/commercial and lab/research components with the potential to more than double the nearly 500,000 square feet currently in use in the area. The Town has invested in the installation of water and sewer infrastructure necessary to facilitate this development.

dispersed across residential neighborhoods throughout the Town, in terms of infrastructure investment and quality of life issues.

Above and beyond the implications for locally generated taxes, the implementation of NextGenCT should have implications for intergovernmental revenue that the Town receives from the State. This issue is addressed in Section 6 of this report.

3.5. SUMMARY AND IMPLICATIONS

NextGenCT is anticipated to represent a significant amount of capital investment in Mansfield, and may also lead to higher ongoing activity levels within the Town. This will have the effect of producing economic and fiscal benefits for the Town. While there is still much uncertainty as to the magnitude, composition, and timing of growth associated with NextGenCT, the preliminary projections contained in this section suggest that the Town will see meaningful economic and fiscal gains from NextGenCT:

1. $1.38 billion in capital investments over 10 years will produce $1.44 billion in expenditure impact within the Town, generating $470 million in labor income and supporting about **800 jobs per year**.

2. A $60 million to $360 million increase in UCONN's direct operating expenditures within the Town will mean that UCONN's presence in the Town will produce $70 million to $420 million more annual expenditure impact, supporting **125 to 1,500 more jobs**.

3. $6 million to $14 million more in student spending taking place in the Town will support **30 to 90 more jobs** within the Town.

4. Population growth is estimated to catalyze new private development and increase demand at existing properties. Property tax base gains from new residential subdivisions and existing student housing complexes alone are estimated to add $5 to $17 million to the Town's tax base, generating **$100,000 to $360,000 in annual tax revenues each year for the Town**.

Beyond the fiscal impact projected above, and that associated with potential growth in the State PILOT payment discussed in Section 6, there is significant potential for economic development and attendant tax base growth within the Town associated with NextGenCT. These impacts are discussed in more detail in Section 5, but remain too unclear to quantify at this time. The degree to which these opportunities materialize, and further the degree to which the Town is able to capture them, is central to the size and scale of the ultimate fiscal impact of NextGenCT to the Town.

4. SERVICE, EDUCATION, AND INFRASTRUCTURE IMPACTS FROM NEXTGENCT

4.1. OVERVIEW

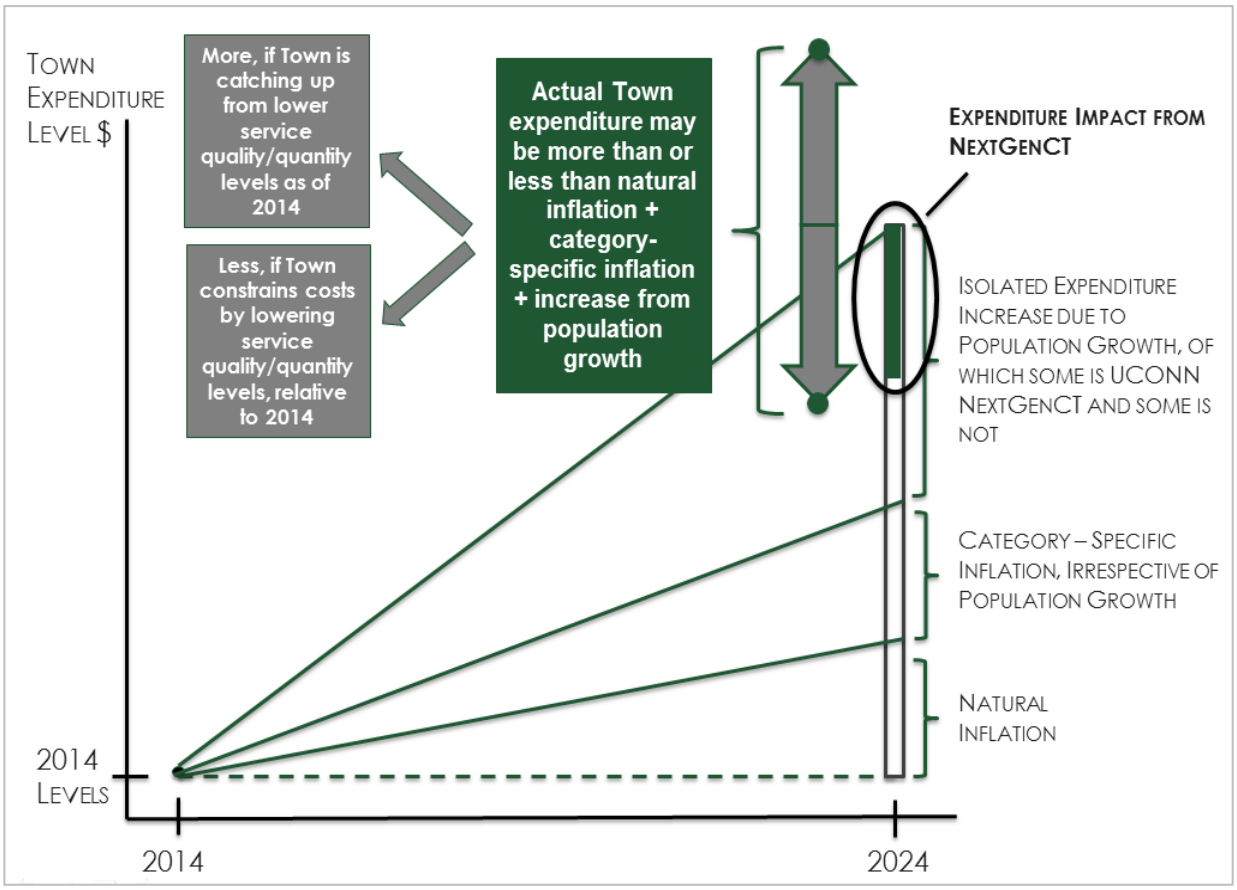
The purpose of this section is to estimate service, education, and infrastructure impacts on the Town resulting from the implementation of NextGenCT between 2015 and 2025. **The investment and growth envisioned by UCONN during this time may necessitate increased service levels, education expenditures, or infrastructure investments on the part of the Town**. This section uses similar analytical techniques as described in Section 2 to describe and quantify the implications for Town expenditures.

4.2. EXPENDITURE IMPACT METHODOLOGY

As noted above, relationships inferred from an analysis of the past expenditure impact of UCONN 2000 and UCONN 21st Century can be used to determine the future expenditure impact of NextGenCT. Even if it is assumed that those relationships are similar, it cannot be assumed that NextGenCT and the growth it produces will be the same as UCONN 2000 and UCONN 21st Century and the growth those two initiatives produced. Furthermore, one must account for the present state of the Town and its service offerings, as this is not to be a theoretical exercise that starts from a baseline of neutral service levels but one that builds from a baseline of where the Town actually is right now in terms of capacity constraints and quality levels.

Nonetheless, much of what was gleaned from the analysis of the past expenditure impact of UCONN 2000 and UCONN 21st Century is applicable to this analysis of the future expenditure impact of NextGenCT. Fundamentally, how NextGenCT's expenditure impacts will be isolated is through the same approach of seeing actual expenditure growth as the sum of inflation, category-specific increases, increases from population growth, and changes in service quality and quantity levels (see Figure 4.1).

FIGURE 4.1 – TOWN OF MANSFIELD FUTURE SERVICE EXPENDITURES BY CATEGORY



Source: Econsult Solutions

As with the analysis of the past expenditure impact of UCONN 2000 and UCONN 21st Century, true expenditure changes in response to NextGenCT will be less smooth than they are described here. Many expenditure increases implemented by a municipality come in the form of increased staffing, equipment purchases, and infrastructure investments. Thus, increases are less frequent and are larger, rather than continuous and incrementally small, although some of this can be smoothed through outsourcing and staffing practices.

On a related note, it must be determined if NextGenCT represents a magnitude of increase that results in outsized expenditure increases beyond the scale of what was contemplated in the analysis of the past expenditure impact of UCONN 2000 and UCONN 21st Century. In other words, even if it is assumed that relationships between population growth and expenditure increases are relatively linear, at a certain magnitude of increase in population growth, expenditure increases will need to be disproportionately high. It is not assumed that NextGenCT rises to this level, so this need not be a concern of this analysis.

As noted above, NextGenCT is anticipated to represent $1.54 billion in building and infrastructure investment, and will yield 1.7 million net new square feet of new construction plus an additional 780,000 square feet of renovated space. Based on the scenarios presented in the UCONN Master Plan document, a high and low scenario are analyzed in this section, in terms of the number of undergraduate students, faculty/staff, and school-aged children added in the Town.[34]

FTE student enrollment scenarios, which include only growth in undergraduate students, and attendant faculty/staff growth scenarios from the UCONN Master Plan are allocated according to the current population capture percentages in the applicable categories. This methodology thus implicitly assumes that the same proportion of undergraduates will continue to live on campus, and that Mansfield will capture the same proportion of off-campus undergraduate students and faculty/staff as currently. Further, school enrollment per household is implicitly assumed to remain constant at current levels. The resulting range of population increase scenarios is shown below in Tables 4.1 and 4.2.

TABLE 4.1– ESTIMATED MANSFIELD POPULATION GROWTH SCENARIOS FROM NEXTGENCT

Scenario	Estimated On-Campus Population Increase	Estimated Off-Campus UCONN-affiliated population Increase[35]	Estimated Total UCONN Population Increase
Low-End: + 1,000 Students	760	290	1,050
High-End: + 5,000 Students	3,500	1,250	4,750

Sources: Econsult Solutions, UCONN, Town of Mansfield

TABLE 4.2– ESTIMATED MANSFIELD SCHOOL ENROLLMENT GROWTH SCENARIOS FROM NEXTGENCT

Scenario	Estimated Increase in Relevant Households[36]	Pre-K to 8 Enrollment per HH	9-12 Enrollment per HH	Estimated Increase in Pre-K to 8 Enrollment	Estimated Increase in 9-12 Enrollment
Low-End: + 1,000 Students	60	0.23	0.11	13	6
High-End: + 5,000 Students	170	0.23	0.11	39	18

Sources: Econsult Solutions, UCONN, Town of Mansfield

[34] As noted above, while NextGenCT may differ from UCONN 2000 and UCONN 21st Century in the types of capital investments made and the reasons for making them, it is assumed that the relationship between increases in operating activity levels (e.g. staffing, enrollment) and operating budget are relatively consistent over time.

[35] Includes undergraduates anticipated to be living within Mansfield, and faculty/staff plus families anticipated to be living within Mansfield. Projections for graduate student growth are not included in the UCONN Master Plan scenarios, and thus are not included within these figures.

[36] Includes the increase in faculty/staff households estimated to be located in Mansfield. A portion of graduate student households are also estimated to contribute to pre-K to 8 enrollment (see Section 2.10), however, they are excluded from these figures because projections for graduate student growth are not included in the UCONN Master Plan scenarios.

Finally, it should be noted that projected expenditures below are shown in 2014 dollars, and thus do not reflect cost increases attributable to inflation. However, as noted in Section 2, costs for many service categories have historically risen faster than inflation, increasing the real cost of service provision for the Town in those categories. These per capita increases are assumed to continue over the next decade, and are incorporated into the expenditure calculations below. Note that these figures differ from results of the Town budget model (discussed in Section 7) which also incorporate standard inflation to produce budget projections in nominal dollars.

4.3. SERVICE EXPENDITURE IMPACTS

4.3.1. GENERAL GOVERNMENT

General Government represents the administrative functions and energy costs of Town government. It was estimated in Section 2.9.1 that a 6,800 person increase in the on-campus and off-campus UCONN-affiliated population produced a $55,000 increase in Town General Government expenditures, for an expenditure increase of $8 per UCONN-affiliated population. It was also determined that this expenditure category had some minor capacity and quality issues, and a slight increase in category-specific costs above and beyond inflation.

The two scenarios of UCONN-affiliated population increase associated with NextGenCT analyzed for this study are calculated to result in an increase in annual General Government expenditures of $9,000 to $41,000 in current dollars (see Table 4.3).

TABLE 4.3 – ESTIMATED IMPACT OF NEXTGENCT ON GENERAL GOVERNMENT EXPENDITURES

Marginal Expenditure per UCONN Population	Annualized Increase in Category-Specific Costs	Range of Increase in UCONN Population	Range of Impact from NextGenCT
$9	0.6%	1,050 - 4,750	$9,000 - $41,000

Source: Econsult Solutions

4.3.2. PUBLIC SAFETY

Public Safety encompasses the Town government provision of police and fire services, animal control and emergency management. It was estimated in Section 2.9.2 that a 6,800 population increase in the on-campus and off-campus UCONN-affiliated population produced a $481,000 increase in Town Public Safety expenditures, for an expenditure increase of $71 per incremental UCONN population. It was also determined that this

expenditure category had significant current capacity and quality issues, and a significant increase in category-specific costs above and beyond inflation.

The two scenarios of UCONN-affiliated population increase associated with NextGenCT analyzed for this study are calculated to result in an increase in annual Public Safety expenditures of $96,000 to $431,000 in current dollars (see Table 4.4).

TABLE 4.4 – ESTIMATED IMPACT OF NEXTGENCT ON PUBLIC SAFETY EXPENDITURES

Marginal Expenditure per UCONN Population	Annualized Increase in Category-Specific Costs	Range of Increase in UCONN Population	Range of Impact from NextGenCT
$71	2.5%	1,050 - 4,750	$96,000 - $431,000

Source: Econsult Solutions

Section 2.9.2 estimated that public safety expenditures, independent of service quality, have increased at close to twice the rate of inflation over the past two decades. In part due to this increase, the Town has been challenged to keep pace with increasing service needs, and there now appear to be capacity issues, according to the Town's own analysis.[37] Adding to this challenge, new state budget legislation for FY 2016 enacts significant changes in the trooper reimbursement program. Municipalities will now be charged 85 percent for the first two troopers, and 100 percent for additional troopers (Mansfield had ten), compared to the previous reimbursement of 70 percent (and 100 percent only for fringe benefits). This change has a significant budgetary impact for Mansfield, representing a one-time increase to a new spending level, on top of normal growth, and has caused the Town to decrease its trooper contingent from 10 to 8 for FY 2016 in order to stay within budgeted levels for the current fiscal year, exacerbating service quality concerns. Based on this change, Mansfield may well reconsider the mechanism by which it provides police services moving forward, as explored in the 2012 "Police Service Delivery Alternatives" study. In one sense, future changes may be in part triggered by future University growth associated with NextGenCT, but in another sense, changes in the level and structure of service are more attributable to past growth, changes in cost structure, and past service quality decisions by the Town in response.

In keeping with the expenditure impact methodology utilized throughout this study, these considerations are excluded from the calculation above, which assumes a continuation of cost trends and the relationship between population and cost established over the past two decades.

[37] See: "Town of Mansfield Police Service Delivery Alternatives", Police Executive Research Forum and Management Partners Incorporated, 2012, which recommended four additional state troopers to satisfy desired service levels, only one of which has been added.

4.3.3. PUBLIC WORKS

Public Works encompasses the Town government provision of road, grounds and maintenance services, as well as services like solid waste. It was estimated in Section 2.9.3 that a 6,800 UCONN-affiliated population increase produced a $147,000 increase in Town Public Works expenditures, for an expenditure increase of $22 per UCONN-affiliated population. It was also determined that this expenditure category had some minor capacity/quality issues.

The two scenarios of UCONN-affiliated population increase associated with NextGenCT analyzed for this study are calculated to result in an increase in annual Public Works expenditures of $21,000 to $93,000 in current dollars (see Table 4.5).

TABLE 4.5 – ESTIMATED IMPACT OF NEXTGENCT ON PUBLIC WORKS EXPENDITURES

Marginal Expenditure per UCONN Population	Annualized Increase in Category-Specific Costs	Range of Increase in UCONN Population	Range of Impact from NextGenCT
$17	1.2%	1,050 - 4,750	$21,000 - $93,000

Source: Econsult Solutions

It is worth noting that additional infrastructure implications from NextGenCT, which may ultimately reflect in Public Works spending, are outside of the operating budget and are dealt with separately in this analysis. Routine capital needs are addressed in section 4.3.7, while one-time expenditures on the part of the Town to capitalize on growth opportunities associated with University growth, are discussed in detail in Section 4.5. In addition, while net neutral in cost to the Town, the fee level for Solid Waste may be impacted by additional service needs.

4.3.4. COMMUNITY SERVICES

Community Services encompasses the Town government provision of human services, libraries, and recreational amenities. It was estimated in Section 2.9.4 that a 6,800 population increase in the on-campus and off-campus UCONN-affiliated population produced a $67,000 increase in Town Community Services expenditures, for an expenditure increase of $10 per new UCONN-affiliated resident. It was also determined that this expenditure category had some capacity and quality issues. The two scenarios of UCONN-affiliated population increase associated with NextGenCT analyzed for this study are calculated to result in an increase in annual Community Service expenditures of $10,000 to $47,000 in current dollars (see Table 4.6).

TABLE 4.6 – ESTIMATED IMPACT OF NEXTGENCT ON COMMUNITY SERVICES EXPENDITURES

Marginal Expenditure per UCONN Population	Annualized Increase in Category-Specific Costs	Range of Increase in UCONN Population	Range of Impact from NextGenCT
$10	0%	1,050 - 4,750	$10,000 - $47,000

Source: Econsult Solutions

This calculation reflects only spending in the operating budget, which includes a subsidy to the Parks and Recreation fund, but is not reflective of the full expenditure needs associated with those services, which are financed primarily through user fees. As with the Solid Waste fund, increases in population may result in increases in fee levels for users, which can be thought of a service level decline even if net neutral to the general fund. Similarly, increased congestion of services may impact quality given currenty capacity constraints, and therefore the Town may choose to spend more than what is estimated in this calculation to increase quality levels. In one sense, this spending would be attributable to NextGenCT, but in another sense it is more attributable to past growth that has impacted Town capacity.

4.3.5. COMMUNITY DEVELOPMENT

Community Development encompasses the Town government provision of inspection, code enforcement, and zoning services. It was estimated in Section 2.9.5 that a 6,800 population increase in the on-campus and off-campus UCONN-affiliated population produced a $161,000 increase in Town Community Development expenditures, for an expenditure increase of $24 per UCONN person. It was also determined that this expenditure category had no retrospective capacity/quality or category-specific cost growth concerns.[38] The two scenarios of UCONN-affiliated population increase associated with NextGenCT analyzed for this study are calculated to result in an increase in annual Community Development expenditures of $25,000 to $113,000 in current dollars (see Table 4.7).

TABLE 4.7 – ESTIMATED IMPACT OF NEXTGENCT ON COMMUNITY DEVELOPMENT EXPENDITURES

Marginal Expenditure per UCONN Population	Annualized Increase in Category-Specific Costs	Range of Increase in UCONN Population	Range of Impact from NextGenCT
$24	0%	1,050 - 4,750	$25,000-$113,000

Source: Econsult Solutions

[38] Town Council has expressed an interest in adding capacity for economic development initiatives, including an increase in related staffing for that function. Whether this is implemented and to what degree it is done in coordination with the implementation of NextGenCT by UCONN is yet to be determined.

4.3.6. TOWNWIDE EXPENDITURES

Townwide Expenditures encompasses the Town government cost for pensions and benefits. It was estimated in Section 2.9.6 that a 6,800 population increase in the on-campus and off-campus UCONN-affiliated population produced an $184,000 increase in Townwide expenditures, for an expenditure increase of $27 per UCONN person. It was also determined that this expenditure category had no capacity/quality, but did have significant increase in category-specific costs above and beyond inflation due to broad trends in government costs for employee benefits.

The two scenarios of UCONN-affiliated population increase associated with NextGenCT analyzed for this study are calculated to result in an increase in annual Townwide expenditures of $37,000 to $165,000 in current dollars (see Table 4.8).

TABLE 4.8 – ESTIMATED IMPACT OF NEXTGENCT ON TOWNWIDE EXPENDITURES

Marginal Expenditure per UCONN Population	Annualized Increase in Category-Specific Costs	Range of Increase in UCONN Population	Range of Impact from NextGenCT
$27	2.5%	1,050 - 4,750	$37,000 - $165,000

Source: Econsult Solutions

4.3.7. CAPITAL EXPENDITURES

As described in Section 2.9.7, the Town has adopted a “pay as you go” model in which annual allocations are made from the general fund to prepare for forseeable capital expenditures like heavy equipment and building replacement. This approach means that base need expenditures function largely like categories in the operating budget, growing incrementally over time in a linear relationship with activity levels, rather than varying significantly from year to year like the “one-time” infrastructure investments discussed in Section 4.5.

Since the change in the capital budgeting approach taken by the Town from opportunistic to “pay as you go” made a calculation of backward looking impacts from population growth impractical, the estimated impact of population growth on the operating budget provides the most useful proxy for projected expenditure growth in this category. Specifically, the population growth scenarios associated with NextGenCT are estimated to produce an increase in total operating expenditures of 1.3 percent to 5.8 percent annually (prior to any adjustment for category-specific cost increases, which are assumed to be zero for these expenditures). This incremental impact can be applied to the Town’s reported capital “base needs” of $2 million to yield an estimate of $26,000 - $116,000 in

annual incremental capital base needs attributable to population growth from NextGenCT, or $20 per incremental UCONN population (see Table 4.9).

This method of estimation does not allocate any specific capital expense entirely to population growth. Rather, it reflects the fact that, like operating budget categories, increased activity levels are reflected in expenditure needs on the margins over time. Additional capacity may be easily absorbed in a given year, but over an extended time period (such as the ten year time period for implementation of NextGenCT examined in this report), expenditures ultimately tend to rise commensurate to increased usage to maintain a consistent service level. In the case of University population growth, Section 2.9.7 described impacts on areas like sidewalks and pathway maintenance, road resurfacing, and vehicle replacement. These impacts can largely be conceptualized as reflecting a slight acceleration of replacement rates in each of these categories due to increased usage relative to a scenario with no university population growth.

TABLE 4.9 – ESTIMATED IMPACT OF NEXTGENCT ON CAPITAL BASE NEEDS EXPENDITURES

FY 2014 Town Capital Base Needs	Range of Increase in Operating Budget from NextGenCT Pop Growth Scenarios	Range of Impact from NextGenCT
$2.0 million	1.3% - 5.8%	$26,000 - $116,000

Source: Econsult Solutions

4.4. EDUCATION EXPENDITURE IMPACTS

4.4.1. PRE-K TO 8 EDUCATION

It was estimated in Section 2.10.1 that the increase in the UCONN off-campus population produced 137 more school-aged children for grades K through 8, which at a marginal annual cost per student of $1,670 resulted in a $230,000 increase in Town pre-K to 8 expenditures. Using the same ratios, NextGenCT would yield 13 to 52 more pre-K to 8 students. Based on the historic increase in cost per student of 1.6 percent per year above and beyond inflation, the additional pre-K to 8 enrollment attributable to NextGenCT is estimated to result in $26,000 to $101,000 in additional expenditures for the Town (see Table 4.10).

TABLE 4.10 – ESTIMATED IMPACT OF NEXTGENCT ON PRE-K TO 8 EXPENDITURES

Net New Relevant UCONN Households	Pre-K to 8 Students per HH	Net New pre-K to 8 Students	Marginal Cost per Student	Annualized Increase in Category-Specific Costs	Range of Impact from NextGenCT
60-230	0.23	13-52	$1,670	1.6%	$26,000-$101,000

Source: Econsult Solutions

As alluded to earlier, enrollment has been down for 15 years, and would be down even more but for additional UCONN K-8 students. There may come a point in time at which the Town chooses to reduce classrooms or consolidate schools. Should that happen, then from a cost relationship standpoint, potential savings may be considered delayed as a result of having more pre-K to 8 students from UCONN over the interim period.

4.4.2. 9 TO 12 EDUCATION

It was estimated in Section 2.10.2 that the increase in the UCONN off-campus population produced 14 more school-aged children for grades 9 through 12, which at an average annual cost per student of $16,565 resulted in a $240,000 increase in Town 9-12 expenditures. Using the same ratios, NextGenCT would yield 6 to 25 more 9-12 students. Based on the historic increase in cost per student of 0.8 percent per year above and beyond inflation, the additional 9 to 12 enrollment attributable to NextGenCT is estimated to result in $114,000 to $447,000 in additional expenditures for the Town (see Table 4.11).

TABLE 4.11 – ESTIMATED IMPACT OF NEXTGENCT ON 9-12 EXPENDITURES

Net New Relevant UCONN Households	9-12 Students per Household	Net New 9-12 Students	Marginal Cost per Student	Annualized Increase in Category-Specific Costs	Range of Impact from NextGenCT
60-230	0.11	6-25	$16,565	0.8%	$114,000-$447,000

Source: Econsult Solutions

Together, therefore, enrollment growth from pre-K through 12th grade attributable to NextGenCT is projected to result in $140,000 to $550,000 in additional expenditures for the Town.

4.5. INFRASTRUCTURE EXPENDITURE IMPACTS

Section 2.11 detailed the history and current status of infrastructure arrangements within Mansfield. This section considers the potential marginal effect on Town infrastructure needs from potential UCONN growth under NextGenCT and takes into account growth management policies that the Town may choose to implement. As previously noted, infrastructure needs are more difficult than other service needs to quantify numerically due to the non-linear nature of the investments involved.

Water and Sewer

The change in infrastructure demand on the Town relative to growth under NextGenCT will depend on not only how much UCONN grows, but also on how the Town reacts to and captures that growth during the same period. The two factors are inseparable. With the adoption of *Mansfield Tomorrow,* the Town's plan of conservation and development (the Plan), the Town updated its long range land use vision.

The Plan calls for economic growth in targeted areas and of a scale that complements the rural character of the Town. The locations where the Town would like to see this growth directed, as well as the densities/intensities which are envisioned as acceptable for those targeted growth areas, mandates water and sewer service to them. As such, successful economic development in Mansfield, driven in part by growth at UCONN, will increase its water and sewer infrastructure costs to some degree.

University growth as part of UCONN 2000 and UCONN 21st Century has helped create a current climate in which development has been attracted to Mansfield at large. Similarly, growth under NextGenCT can be expected to continue to contribute to and be an important driver for economic development success in Mansfield and in particular the Four Corners and Storrs Center sites. It is also expected to be a direct driver of developer interest in new high-density off-campus housing projects in close proximity to campus. Some of this interest has already been expressed by developers' recent visits to the Mansfield Planning and Zoning Office.

Thereby, NextGenCT will influence the degree to which the Town of Mansfield will want to further extend infrastructure in its targeted growth areas and how related infrastructure costs will rise. This is because growth in the number of students, faculty, as well as other staff and their families has fostered a new corollary market demand for rental housing, retail, dining, and services businesses in Mansfield, all of which in the desired locations would be best served by community water and sewer infrastructure.

If it seeks to capture this growth, it is likely that the Town will see its costs for water and sewer services grow. The Town estimates it is currently near capacity in terms of utilization of existing water and sewer infrastructure within existing municipal service areas. This means that under any scenario where there is growth in the numbers of

students and faculty as a result of NextGenCT, the Town will need to evaluate and document actual capacity as development is proposed and then invest in water and sewer infrastructure. This is because student and faculty growth will result in proposals for new high-density student housing off-campus, or more high-intensity mixed commercial or light industrial activity, which will experience constraints on the capacity of existing water and sewer mains in those locations to accommodate that development.

Areas where there is infill and redevelopment potential and where this has been identified as a concern are:

- West of the campus and north of N. Eagleville Road in the adjacent residential neighborhood; and

- Four Corners

If the Town seeks to increase its water infrastructure capacity to accommodate the growth in demand for off-campus student housing, or other land uses, upgrades to the system of water mains would need to be negotiated with the CWC. The Town Engineer's Office has said that, depending on the neighborhood, the cost to bring water (and water mains) in is between $175 and $250 per linear foot, with lower costs when new lines can be hooked up to existing services. In the case of increased capacity in the sewer system with upgrades installed by the Town, the order-of-magnitude costs (2015 dollars) for the system components (i.e. 8 inch PVC force-main pipe plus manholes, and all excavation and subsequent street repair) averages around $250 to $375 per linear foot.[39] Thus, 1,000 feet of new sewer main system could cost between $250,000 and $375,000. The most recent estimate for the new sewer main system to serve the Four Corners project was estimated at approximately $9 million. As the developer interest in Mansfield is manifested, Mansfield will also incur some costs for the process of evaluating the real-time capacity of existing water and sewer main systems and determining the need to respond and mechanisms by which it will respond to that new demand.

A State grant would, however, reduce the Town's share of that cost to approximately $6 million. Furthermore, the Mansfield Water Pollution Control Authority may also assess property owners within the service district for a portion of the construction cost. Based on the total project cost, therefore, the fiscal impact to the Town for the Four Corners sewer project can be expected to be approximately $3 million (or $125 per linear foot). A similar financial arrangement with minimized costs to the Town could be possible for future sewer system expansions. Other increased costs can be expected to be primarily for maintenance of sewer mains, including cleaning, removal of blockages, and spot repairs.

All of the above costs can be offset to some degree by development fees, user fees, and property taxes. Costs for sewer connections to new users will be borne primarily by the

[39] Allen & Burke Construction, LLC

site developer and regular usage fees would be assessed by the Town. This is appropriate to the extent to which the Town plans to capture its share of the growth generated by NextGenCT. The Town should therefore **consider how to ensure that it is properly preparing to accommodate that growth on the front end and how to structure its fees and taxes so that on the back end it can recoup the initial costs borne**.

One unknown, however, is the point at which the UCONN sewage treatment plant may need to be upgraded to expand its capacity to serve both UCONN and Town users. This should be evaluated so that costs to the Town can be planned for when this occurs. As UCONN and the Town share the use of the sewage treatment plant, an opportunity exists, as the outdated shared services agreement is updated, to consider all aspects of the system including both capacity in the plant as well as the need for improved capacity in the system of sewer mains.

Transportation System

In terms of the transportation system, anecdotal evidence based on interviews with Town and University staff has suggested that as the University has grown, commuter traffic and multimodal demand has grown, and likely will continue to do so under NextGenCT. The standard method used to estimate the volume of traffic to be generated by a particular development is to use data provided by the Institute of Transportation Engineers (ITE), *Trip Generation, 9th Edition*. This publication is a compilation of trip generation data for a wide variety of facility types and provides data for traffic, relative to the size and type of the development.

A review of the manual revealed that UCONN may generate approximately 1,000 to 7,000 new daily (vehicular) trips based upon a growth scenario of 1,000 to 5,000 students, respectively.[40] UCONN houses most of its students on campus; therefore, a majority of these new trips will be captured internally. Trips that exit campus will be distributed across multiple University access points and roadways – mainly Route 195. As the demand for transit, bicycle and pedestrian facilities continues to grow, actual trip estimates associated with student growth may be lower than the ITE current rule-of-thumb suggests.

In the absence of enhancements to local and state roads and the transit system, **traffic issues during the growth period for NextGenCT can be expected to remain or worsen, and costs to the Town to maintain its roadways and manage local traffic conditions can be expected to rise.** Deterioration in pavement is primarily a result not of regular commuting traffic but rather of the accumulated damage from heavy vehicles

[40] ITE Code 550 (University/College). Assumes a 20 percent reduction for transit use.

and environmental effects such as freeze and thaw cycles[41] While the Town has indicated large trucks have been observed on local roads, accumulated growth in recurring truck traffic will be primarily distributed across multiple University access points which provide direct access to state routes; therefore, physical deterioration to Mansfield's local roadway network should not advance at significantly a faster pace. However, if there are local roadways where recurring truck traffic is documented (independent of non-recurring truck traffic such as delivery or moving services), the Town may consider passing a truck restriction ordinance for individual roads to help enforcement and minimize added maintenance costs.

The trip generation estimates and sources of maintenance costs for roadways indicate that net new demand from NextGenCT is unlikely to alter the existing travel patterns, traffic volumes, or roadway conditions in a meaningful way. An upcoming State-sponsored study of the Route 195 corridor may lead to some improvements to travel conditions there long-term, partially offsetting the increase in usage. While the addition of connector roads (Eagleville and Hillside roads) may also help to alleviate traffic somewhat by providing additional network, cut through traffic on local roads is likely to still occur.

With more of the millennial generation attending and working at UCONN, the demand for transit, bicycle and pedestrian facilities will also continue to grow. Growing demand for safe, well-connected bicycle, pedestrian, and transit options off-campus can be expected to be closely correlated to the growth in the number of students, faculty, and other University staff at UCONN in the coming decades. There are currently no ready mechanisms that the Town can employ that would significantly offset the costs of providing these facilities and services. For example, the Town would be responsible for additional bus stop amenities including shelters, benches, trash cans, and lighting if transit services were to be expanded to include more stops. A single enhanced bus shelter with Plexiglas can range from $10,000 to $20,000, depending on size. Currently, the Town and UCONN equally split (50/50) the fare-free transit agreement; however, UCONN is estimated to represent the majority of its use. The Town and University intend to review the costs and structure of the fare free program.

The University Master Plan contains a technical appendix that covers traffic, multimodal transportation, and circulation. A Master Plan is a guiding document intended to comprehensively assess the transportation network that serves the campus. As the campus develops, the recommendations will be evaluated and implemented as appropriate. Several key strategies UCONN is currently undertaking include:

[41] For example, a fully loaded 18-wheeler weighs about 80,000 pounds (40 tons), while a typical car weighs about 4,000 pounds (2 tons). The 18-wheeler weighs 20 times more than a car; however, the equivalent impact to the roadway pavement is exponentially greater. In fact, one fully loaded 18-wheeler traveling along a roadway is equivalent to several thousand cars. Based on the findings of the American Association of State Highway Officials (AASHO) Road Test, one axle of 10 tons on a heavy truck was 160,000 times more damaging to a road surface than an axle of 0.5 tons (car scale).

- UCONN is developing a traffic model that will be a sustainable tool to analyze the impacts resulting from incremental development of the campus. The results generated by this model will be shared with the Town and other agencies via the EIE process as projects are proposed.

- UCONN will continue to maintain on-going communication with the Planning and Public Works departments in the Town as improvements are defined and proposed for implementation.

- UCONN will continue to meet its obligations to mitigate traffic and transportation impacts through a coordinated program of traffic demand management (TDM) strategies and physical improvements to the system. These are both short term and long term actions that are implemented by UCONN to manage traffic and parking systems that serve the campus.

- UCONN has added a full time Transportation Planner to the Logistics department. This position was designed to provide added coordination with local, state, and federal agencies regarding traffic and transportation initiatives, to implement the TDM programs, and to work with project managers to identify and mitigate traffic issues related to new development.

UCONN will begin implementing its TDM program over the next year in order to stay in front of growing demand and to ensure measures set forth are operating effectively as the campus grows. Following implementation, UCONN expects to administer a University-wide travel survey to determine existing commuter travel patterns and tendencies, resident car ownership and use, and to ask targeted “what if” questions to inform the interest in and effectiveness of specific TDM measures.

The shared nature of transportation usage challenges and possible solutions suggest the possibility for mutual gain through partnership. Suggestions related to potential partnerships between the Town and UCONN relating to infrastructure and transportation are discussed as part of the broader discussion of partnerships in Section 5.

Financial Implications

The effect of growth from NextGenCT on infrastructure expenditures by the Town depends on the amount, type, and location of the growth that the Town desires to capture rather than losing to other jurisdictions. If the Town makes little to no net new infrastructure investments, it will be constrained in capturing growth caused by NextGenCT and will therefore lose the economic activity and property tax revenue associated with that growth. Conversely, if the Town makes significant infrastructure investments, it will be in a better position to capture growth produced from NextGenCT and will therefore gain the economic activity and property tax revenue associated with that growth.

Such infrastructure investments may be undesirable to many, for one of two reasons. First, they represent large outlays, which could otherwise be used to increase services or lower taxes. Second, they represent an accommodation for growth within Town boundaries, which may impose upon the rural character of much of the Town.

However, the alternative to not making these infrastructure investments may be equally undesirable. The nature of the provision of public services, such as municipal services and public education, is that there are economies of scale to be had as costs are spread out over more users, and conversely there are diseconomies of scale that are experienced as costs are spread out over fewer users. As public expenditures continue to rise by inflation, or in most cases by amounts greater than inflation, stagnancy means that there are no new property tax revenues to offset that expenditure growth and a locality is left to cut public services or raise tax rates. Growing per-pupil costs caused in large part by the steady decline in enrollment without a commensurate reduction in large fixed costs, such as teacher salaries and maintenance of buildings, is an example of this concept in practice. Similarly, infrastructure is made more efficient for a municipal government when its costs are spread out over many users. In addition, the absence of high-density student rental housing in areas designated by the Town for such uses may result in further conversions of single family homes, contributing to service provision and quality of life challenges in residential neighborhoods.

Additionally, infrastructure investments are needed to stabilize and grow a municipality's tax base. Over time, infrastructure deteriorates, reducing the value of land and structures and making a place less attractive for households and businesses to be located in. This creates a drag on a municipality's property tax base, necessitating either painful service cuts or equally painful rate hikes. Furthermore, growth often requires new infrastructure investments to be supported, without which that growth cannot be accommodated and therefore does not take place within a locality's boundaries. Conversely, investments in new infrastructure and in maintaining infrastructure stabilize and grow a municipality's tax base by supporting new developments and improving the attractiveness of existing developments.

As noted above, the Town's *Mansfield Tomorrow* plan seeks to contain growth in selected areas within Town boundaries, thus preserving the Town's rural character in the vast majority of the Town while creating places for the Town to capture growth and the economic activity and property tax revenues that come with it. This appears to resolve the two issues raised above, which is that first growth is needed for revenues to keep pace with rising expenditures, and that second growth is contained in areas that do not disturb the Town's rural character.

It is unknown at this time what the Town's infrastructure expenditure impacts will be as a result of NextGenCT because it depends on how much the Town desires to capture the growth that will occur as a result of NextGenCT. To give some indication of the order of magnitude of investment needed, it is noted that the Town is currently proposing to issue

a bond of $9 million over two years to invest in the infrastructure needed to remediate environmental issues related to sewer and to encourage development in the Four Corners area.

Summary

In summary, the effects of growth under NextGenCT in terms of benefits and costs to the Town will be mixed. These benefits and costs in terms of water and sewer will be ancillary to growth under NextGenCT. The benefits and costs to the transportation system will be direct, yet NextGenCT will not be the sole driver of increases in costs to the Town to meet the community's transportation needs. UCONN has conceptual plans to address traffic issues, and if they are brought to fruition, would help alleviate traffic issues as the campus grows.

One clear impact of NextGenCT on infrastructure demand and costs, however, is the need to undertake a process for generating the data necessary to predict those future costs for Mansfield in more detail and with greater accuracy. A build-out analysis of developable land in the targeted growth areas and along Route 195, coupled with a traffic demand analysis for local roads and transit ridership forecasting, would provide a starting point for this. The study efforts by UCONN noted above create an opportunity to leverage the information they will produce towards a shared base of knowledge between the Town and UCONN regarding future infrastructure demand and associated costs.

4.6. SUMMARY AND IMPLICATIONS

NextGenCT differs from UCONN 2000 and UCONN 21st Century in terms of the nature of capital investments contemplated and the reasons behind them, and therefore in terms of the resulting magnitude and composition of growth. However, on a per-person basis, the effects on Town expenditures of adding faculty, staff, and students are likely to be similar. Therefore, the methodologies and results employed in Section 2 were incorporated into this section's analysis of net new service, education, and infrastructure expenditure impacts on the Town from the implementation of NextGenCT:

- Service expenditures are anticipated to grow by approximately $200,000 to $910,000, with the largest increases occurring in the Public Safety category.

- Capital expenditures for "base needs" are anticipated to grow by approximately $25,000 - $115,000.

- Education expenditures are anticipated to grow by approximately $140,000 to $550,000 including $25,000 to $100,000 from new pre-K to 8 students and $115,000 to $450,000 from grade 9-12 students

In total, **Town expenditures are therefore anticipated to grow by $360,000 to $1.55 million in current dollars as a result of service expenditure needs attributable to NextGenCT under the two potential enrollment growth scenarios evaluated within the UCONN Master Plan** (see Table 4.12).

In addition, the Town may choose to undertake infrastructure improvements associated with NextGenCT commensurate with its desire to capture tax base impacts from potential growth associated with the initiative. The character and scale of those impacts is unknown at this time.

TABLE 4.12 – SUMMARY OF ESTIMATED SERVICE AND EDUCATION EXPENDITURE IMPACT FROM NEXTGENCT ON THE TOWN OF MANSFIELD FROM 2014 TO 2024

Service Expenditure Category	Est. Marginal Cost per new UCONN Population	Est. Annualized Increase in Category-Specific Costs	Est. Range of Increase in UCONN Population	Est. Range of Increase in Annual Costs from UCONN Growth
General Government	$8	0.6%	1,050 - 4,750	$9,000 - $41,000
Public Safety	$71	2.5%	1,050 - 4,750	$96,000 - $431,000
Public Works	$17	1.2%	1,050 - 4,750	$21,000 - $93,000
Community Services	$10	0%	1,050 - 4,750	$10,000 - $47,000
Community Development	$24	0%	1,050 - 4,750	$25,000 - $113,000
Townwide Expenditures	$27	2.5%	1,050 - 4,750	$37,000 - $165,000
Service Expenditure Total				**$197,000 - $889,000**
Capital: Base Needs	$20			**$26,000 - $116,000**
Education Expenditure Category	**Est. Cost per Relevant new UCONN Household**	**Est. Annualized Increase in Category-Specific Costs**	**Est. Range of Increase in Relevant UCONN HH**	**Est. Annual Cost Increase Associated with UCONN Growth**
Pre K to 8	$383	1.6%	60 - 225	$26,000 - $101,000
9 to 12	$1,822	0.8%	60 - 225	$114,000 - $447,000
Education Expenditure Total				**$140,000 - $549,000**
Education + Service + Capital Expenditure Total				**$363,000 - $1,554,000**

Source: Econsult Solutions

5. PARTNERSHIP AND SHARED SERVICE OPPORTUNITIES FROM NEXTGENCT

5.1. OVERVIEW

The purpose of this section is to conduct **a high-level evaluation of partnership opportunities between the Town and UCONN that should be explored amidst the successful implementation of NextGenCT, building from the strong working relationship currently in place**. Partnership and shared service opportunities are particularly useful to pursue upon the launch of a new initiative because they are a way to extend and unlock synergies through collaboration, thus strengthening town-gown ties and minimizing for both parties any net new expenditures created by the new initiative. This exploration of collaborative possibilities is governed by the prospect of mutual gain through mutual action, as well as by the reality of constrained resources. It also accounts for the existence of the Town/University Relations Committee which was established in 1992 to promote collaboration between the Town and the University.

5.2. APPROACH

In order to properly understand current partnership efforts and evaluate partnership possibilities, the consulting team conducted a high-level assessment of key areas of shared service delivery and relevant partnerships between the Town and UCONN. The consulting team reviewed available reports and documents, and considered this background information against the backdrop of insights obtained from individual and group discussions with key Town and UCONN representatives.[42] This effort yielded a considerable amount of existing connectivity, from which recommended priority areas could be identified.[43]

5.3. CONTEXT

While the potential range of partnerships and shared service delivery arrangements between the Town and UCONN is numerous, the consulting team focused on those for which a reasonable linkage to NextGenCT can be demonstrated. In keeping with the high-level nature of such an analysis, a limited number of recommendations have been identified that provide broad direction with suggestions for process and structure improvements, as well as ideas for partnership expansions that are not already being considered. Within this context, commentary is based on what has been observed about

[42] See Appendix G for additional detail on the research approach taken by the consulting team.

[43] See Appendix H for additional detail on the current state of partnerships between the Town and UCONN.

existing collaborations between the Town and UCONN, coupled with the consulting team's sense of areas to explore that are possible or desirable.

National trends for university-community partnerships have many common characteristics, and each set of partnerships in a community is always unique based on varying circumstances, organizational cultures and structures, and leadership. Thus, duplicating exact programs from other partnerships is less productive than working to emulate proven structures and cultures. For this reason, the consulting team has avoided suggesting that the partners wholly adapt ideas or systems from elsewhere, although there are lessons in process and approach that are instructive from a variety of town-gown settings, even those that are very different from one another.

The Town and UCONN truly are a unique context. With challenging topography and roadway access, very limited available water and sewer service, a single state university being challenged to impact and drive statewide economic development, and a town focused on rural character and conservation, specific solutions from elsewhere must be considered with caution. At the same time, high-level structures, communication systems, information sharing systems, and leadership collaboration from other successful partnerships can more easily and readily be applied.

Accordingly, suggestion for enhancing such partnerships and ideas falls within a conceptual framework that values an inclusive and collaborative process that can create fluidity and connectivity as new opportunities arise. Table 5.1 below provides a high level framework for exploring partnership efforts between the Town and University in response to the implementation of NextGenCT. A variety of potential partnership areas (in the rows) are cross-referenced with different framework elements for exploring and advancing potential collaborations in those areas. Each box contains either:

- "yes" (indicating an area to consider);
- "maybe" (indicating areas where further action is to be determined); or
- "no" (where further action does not appear to be needed).

Importantly, the focus of this analysis is not on the content of potential collaborations, but on processes that will aid the Town and University in arriving at and implementing mutually beneficial arrangements.

TABLE 5.1 – PRELIMINARY FRAMEWORK FOR EXPLORING PARTNERSHIP EFFORTS BETWEEN THE TOWN OF MANSFIELD AND THE UNIVERSITY OF CONNECTICUT IN RESPONSE TO THE IMPLEMENTATION OF NEXTGENCT

Partnership Area	Enhanced Info & Sharing	Process Adjustments	Structure/ Participation Adjustments	Formal Agreements	Additional Partners	Clarified Vision & Goals	Joint Fundraising Efforts
Economic Development	yes	maybe	yes	yes	yes	yes	yes
Police	yes	maybe	yes	yes	no	yes	yes
Emergency Management	yes	maybe	yes	yes	no	yes	yes
Fire	maybe	maybe	maybe	yes	no	maybe	yes
Roadways	no	yes	maybe	yes	yes	maybe	yes
Transit/TDM	yes	yes	yes	yes	yes	yes	yes
Bike/Ped	yes	maybe	yes	yes	maybe	maybe	yes
Recreation	yes	yes	yes	yes	yes	yes	yes
Water	no	maybe	maybe	(in place)	yes	yes	yes
Sewer	maybe	maybe	explore	(in place)	maybe	yes	yes
Code Enforcement	yes	yes	yes	yes	no	yes	yes
Human Services	yes	maybe	yes	no	yes	yes	yes
K-12	maybe	maybe	yes (expand)	(in place)	maybe	yes	yes

The uncertain and dynamic nature of NextGenCT's implementation has implications for specific categories of partnership, and it also affords opportunities to strengthen the existing ties and processes that make up the working relationship between the Town and UCONN. It is presumed that most if not all further exploration of Town/University collaboration should be undertaken by the Town/University Relations Committee, which is comprised of student and staff representatives from the University as well as resident and staff representatives from the Town. It is important to note that while this existing structure is a good venue to explore partnership opportunities, it does not itself have the same authority as its participants, the Town and UCONN, to enter into formal agreements. To the extent that new formal agreements are made, they would be executed by the Town and UCONN, and discussed within the Town/University Relations Committee.

5.4. RECOMMENDATIONS

The current nature of the working relationship between the Town and UCONN and the characteristics of NextGenCT suggest the following three areas for partnership and shared service action, with specific items of focus delineated in Table 5.2:

1. Transportation and Infrastructure. There is natural intersection between the Town and UCONN on sharing of data, planning efforts, and investment, to the end of facilitating a seamless approach to supporting growth and ensuring safety upon implementation of NextGenCT.

2. Public Safety. To the extent that NextGenCT increases the volume of students and activity at certain neighborhoods and corridors off campus, the Town and UCONN should present a unified approach to safeguarding personal safety and property.

3. Economic Development. To the extent to which the Town desires to capture a reasonable share of the business opportunities that emerge from NextGenCT, it is in the interest of both the Town and UCONN to arrive at a mutually agreed upon sense of where Mansfield has and does not have a locational advantage and then of how to best capitalize on that locational advantage.

TABLE 5.2 – SUGGESTED PARTNERSHIP EFFORTS BETWEEN THE TOWN OF MANSFIELD AND THE UNIVERSITY OF CONNECTICUT IN RESPONSE TO THE IMPLEMENTATION OF NEXTGENCT

Partnership Area	Areas of Focus
Transportation and Infrastructure	• Coordinate transportation infrastructure plans • Share transit/bicycle/pedestrian data • Synchronize parking fee and enforcement policies • Coordinate maintenance and investment at edges of campus • Explore shared regional sewer and water service agreements
Public Safety	• Consider shared facilities and staffing • Track and share information on student-generated police calls • Formalize collaborative arrangements for specific areas and times of high need (e.g. special events, party “seasons”)
Economic Development	• Synchronize strategy, planning, and investment efforts • Determine together where Mansfield does and does not claim a locational advantage for spinoff activity, and prepare accordingly • Co-conceive some type of incubator facility, including co-working space and dedicated programming

The consulting team has identified a number of examples of cooperation between Universities and host communities in these areas nationally. It is important to note that

the specifics of any partnership are the product of needs and benefits arising from the unique circumstances of each university and community situation, and therefore should not be expected to translate directly to the unique relationship between UCONN and Mansfield. A national scan suggests few direct comparables, based on UCONN's relatively unique status as a large public university situated in a rural community without a historic Town center, and without other similar institutions in the area. Nonetheless, there is much that can be learned from the ways that Universities and their host communities have addressed issues of mutual interest and evolving needs by building off existing collaborative frameworks to institute issue-specific agreements. The examples below should be considered not for exact emulations of policies, which are rooted in local circumstances, but for lessons learned from **process, structure and approach**.

- Transportation and Infrastructure – Iowa State University/Ames (CyRide), Penn State/Centre Area Transportation Authority, UMass Amherst/Amherst, UNC Chapel Hill/Chapel Hill
- Public Safety – University of Akron/Akron
- Economic Development – Ohio University/Athens

5.5. SUMMARY

As described in previous sections, the successful implementation of NextGenCT will produce significant economic and fiscal benefits for the Town, and may also introduce the possibility of additional service, education, and infrastructure impacts on the Town. In addition, it creates an opportunity to strengthen the ties between the Town and UCONN in a mutually beneficial way through partnership and shared service arrangements. Accordingly, specific recommendations are advanced for collaborations to forge ahead with in concert with the arrival of NextGenCT.

Beyond these specific recommendations, attention should be given to the overall framework within which the Town and UCONN intersect. Now is a time of great possibility for the Town, UCONN, and the relationship between the two. The Town has advanced a thoughtful plan in *Mansfield Tomorrow* that seeks to lay out a vision for preserving the Town's rural character while strengthening its tax base in targeted growth areas. UCONN continues to grow in size and prominence, to the benefit of both the state of Connecticut as a whole and the localities in which it has physical campuses. NextGenCT represents the next phase of its evolution, and serves as a natural moment for the Town and UCONN to reevaluate its working relationship, strengthen communications mechanisms, and consider specific opportunities for collaboration.

6. INTERGOVERNMENTAL REVENUE IMPACTS FROM NEXTGENCT

6.1. OVERVIEW

The purpose of this section is to discuss the potential change in intergovernmental revenue streams to the Town resulting from the implementation of NextGenCT. The Town relies to a significant degree on funds from the State, primarily a payment-in-lieu of taxes (PILOT) for tax-exempt state-owned property within the town and an education aid grant. Both of these payments are calculated through predetermined formulas set at the state level, and **successful implementation of NextGenCT may change metrics within these calculations, and therefore the amount the Town may expect to receive from the State**.

In practice, actual payments do not always adhere to these formulas, in ways that are both foreseeable and unforeseeable. It is therefore useful to understand how payments are calculated by formula and to determine whether these amounts are likely to go up or down and by how much with the implementation of NextGenCT, but it is also important to recognize that actual future payments amounts are difficult to predict and unlikely to conform to the exact calculations presented below.

6.2. INTERGOVERNMENTAL REVENUES IN THE STATE OF CONNECTICUT

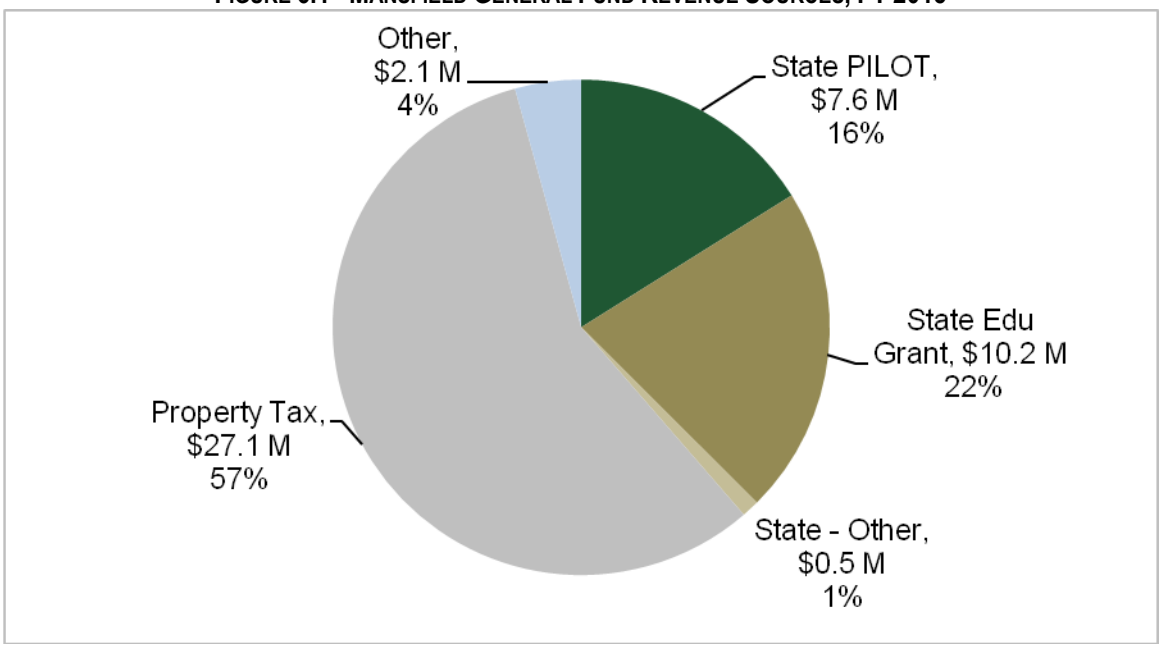
As discussed in Section 2.5, **local municipalities in the State of Connecticut are highly reliant on property tax revenues, with the majority of other tax types (income, sales, and business) collected at the State level**. As a result, the majority of tax revenues generated by entities exempt from property taxes (including universities, hospitals, and other large scale institutions) accrue to the State rather than local municipalities. In recognition of this fact, in 1978 the State instituted a PILOT system to partially compensate local host municipalities.[44] The State also provides significant aid to local municipalities for educational costs, a practice that is more common among states, which helps to address disparities in local property tax bases by including a "Town Wealth" component in the formula and providing additional aid to less wealthy districts.

The Town is highly dependent on state aid within its budget, in particular the PILOT and Education Aid payments. In the approved FY 2015 budget, nearly 40 percent ($18 million) of general fund revenue comes from state aid. It is worth noting that the "Other State Aid" category includes funds from the "Pequot grant," funded by gaming revenues,

[44] Connecticut is one of only two states (Rhode Island is the other) with legislated PILOT payments from state to local governments, which demonstrates the unusual nature of its tax structure.

which has been significantly reduced from more than $3 million annually in the early 2000s to slightly more than $200,000 in FY 2015. The remainder is primarily from property tax, which comprises 57 percent of the budget (see Figure 6.1).[45]

FIGURE 6.1– MANSFIELD GENERAL FUND REVENUE SOURCES, FY 2015



Source: Town of Mansfield

6.3. STATE PAYMENT IN LIEU OF TAXES (PILOT)

Over the past decade the actual state-owned property PILOT for Mansfield has deviated significantly from the amount dictated by formula, after tracking fairly closely in the 10 years prior to that.[46] Figure 6.2 shows the actual and formula payments for Mansfield for the past 21 years, based on the applicable mill rate and state-owned land assessment submitted to the state. In only 5 of the 21 years (FY 1999 to FY 2002, and FY 2006), and

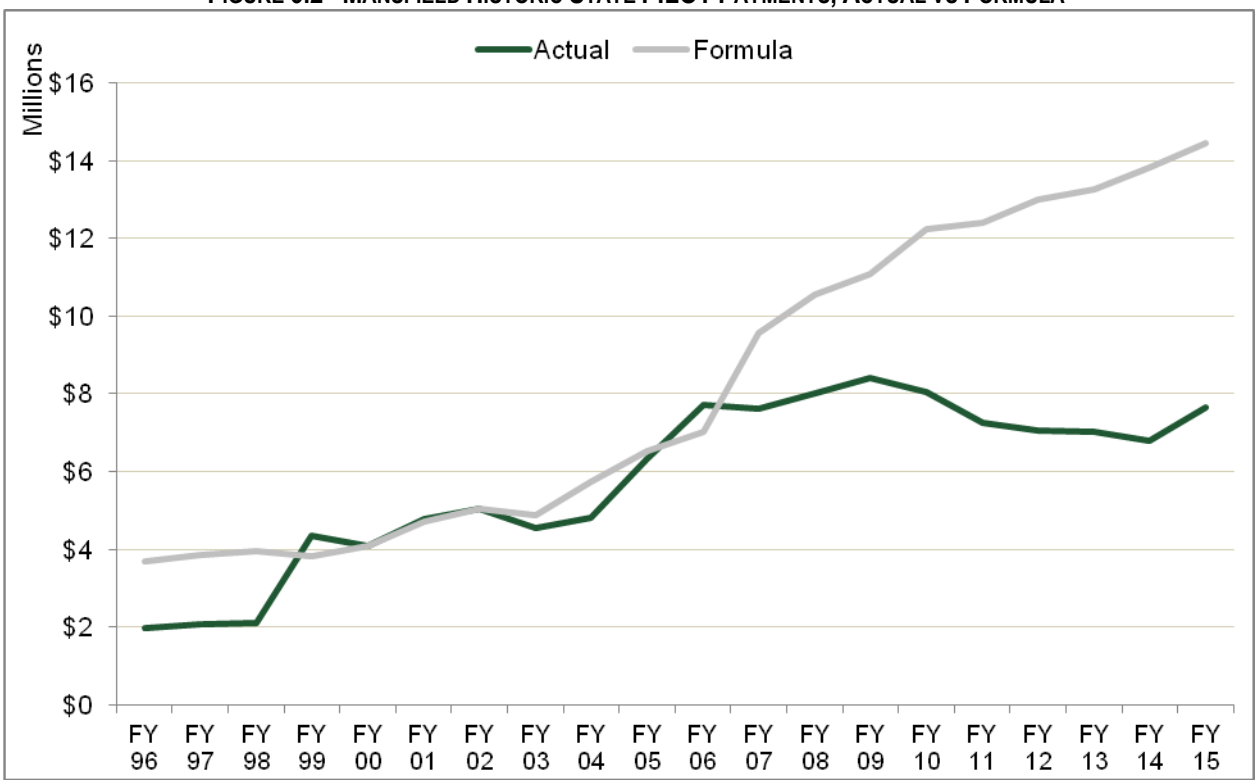
[45] Mansfield is believed to be the only municipality in the state with a greater aggregate value in state-owned land than on privately held land, which makes it uniquely dependent on the state PILOT payment.

[46] The State provides PILOTs through two distinct funds, with statutory reimbursement levels varying by real estate type. The State-Owned Real Property PILOT fund includes: 100 percent for state prison facilities; 65 percent for Connecticut Valley Hospital; and 45 percent for all other state-owned property (including UCONN). The Private Colleges and General and Free Standing Chronic Disease and Hospitals PILOT fund includes 77 percent for private colleges and hospitals.

As the Town notes in its FY 2015 Budget "Issue Paper" on State Revenue, the PILOT rate for private college reimbursement rate is significantly higher for private colleges than for state-owned property associated with public universities, despite the fact that these classes of exempt property may not be "appreciably different" from the perspective of a municipality in terms of associated service needs.

in none of the past nine years, was the PILOT payment fully funded to the level dictated by the formula. In recent years, the actual PILOT payment has stayed relatively flat – the FY 2015 payment is slightly below the FY 2006 payment – while the payment level dictated by formula has grown steadily, opening a significant shortfall between formula and actual payments of approximately $7 million per year as of FY 2015 ($14.5 million per formula compared to an actual payment of $7.6 million).

FIGURE 6.2– MANSFIELD HISTORIC STATE PILOT PAYMENTS, ACTUAL VS FORMULA



Source: Town of Mansfield, State of Connecticut

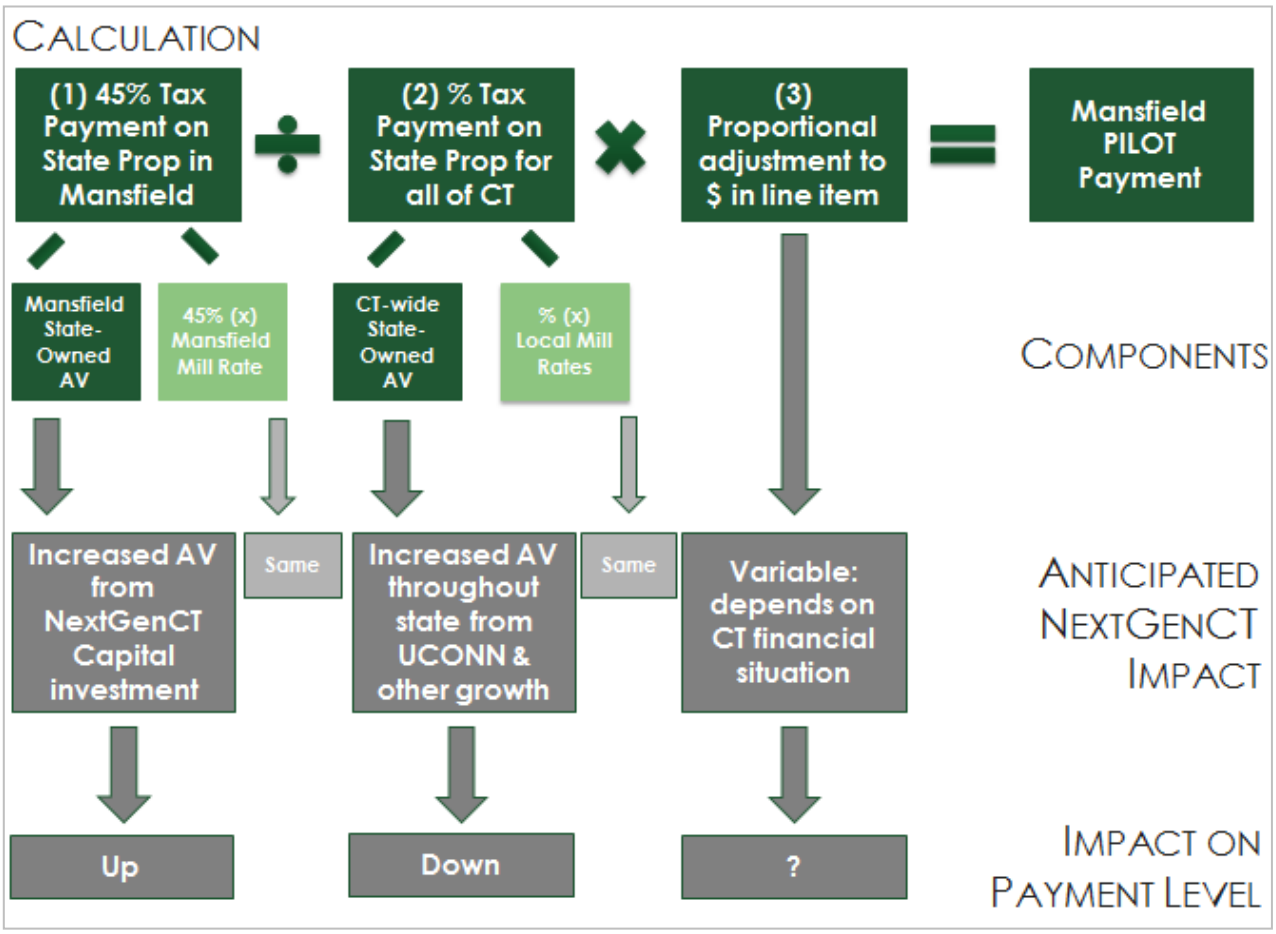
As written, the calculation of the PILOT payment to Mansfield for state-owned property is intended to account only for the assessed amount of state-owned property within the Town, the local millage rate, and the reimbursement rate (in this case 45 percent).[47] However, in practice, financial constraints have brought two additional factors into play in determining the actual payment for Mansfield: the amount of state-owned property across the state, which impacts the proportion of state-owned property that is in Mansfield, and the total size of the PILOT fund, which is in practice proportioned down to the

[47] This calculation for Mansfield is shown in Table 6.1 below.

municipalities based on the share of payment they are owed, rather than fully funded as an "entitlement."

Figure 6.3 below illustrates the mechanics of this calculation, with dark green components representing those potentially impacted by the implementation of NextGenCT and light green representing those components that are unlikely to be directly impacted. For those factors impacted by NextGenCT, the anticipated direction impacts of NextGenCT are shown in gray, along with the resulting impacts of those changes on the level of PILOT revenues the Town can expect to receive post-implementation. Each component is discussed in greater detail below.

FIGURE 6.3– FLOW CHART OF STATE PILOT CALCULATION AND POTENTIAL IMPACTS FROM UNIVERSITY GROWTH ASSOCIATED WITH NEXTGENCT



Source: Econsult Solutions

Calculation of Statutory PILOT Payment for State-Owned Property in Mansfield

The state-owned property assessment level used for the FY 2015 PILOT payment calculation comes from the October 2013 assessment. State-owned real property within Mansfield was valued in that assessment (which calculates assessed values as 70% of Fair Market Value) at $1.18 billion, virtually all of which is on or associated with the UCONN Storrs campus (note that this figure exceeds privately held taxable assessed value within the Town).

To calculate the PILOT payment as dictated by statute, the assessed value of state-owned land within the Town is multiplied by the applicable mill rate in Mansfield (27.95 for FY 2015, or $27.95 for every $1,000 in property value), and the product is multiplied by the appropriate reimbursement rate for the property category (in this case, 45 percent). The result of this calculation is the "formula" PILOT payment for Mansfield for FY 15 (see Table 6.1).[48] Note that this does not represent the figure that the Town anticipates receiving on an annual basis, as the PILOT payment has not been fully funded at the statutory level in nearly a decade.

TABLE 6.1 – CALCULATION OF PILOT PAYMENT FOR MANSFIELD FOR FY 2015, ACCORDING TO STATUTE

Metric	FY 2015
State-Owned Property Assessment (Oct 2013)	$1.18 billion
(x) Applicable Mill Rate	2.795%
(x) Applicable Reimbursement Rate	45%
(=) Formula PILOT Payment	$14.5 million

Sources: Town of Mansfield, State of Connecticut, Econsult Solutions

The successful implementation of NextGenCT may lead to a significant increase in the assessed value of state-owned property in Mansfield through the direct capital investment into the campus that the program entails (as illustrated in Figure 6.3). As discussed in Section 3.2, NextGenCT is currently anticipated to result in capital expenditures of approximately $1.4 billion on the Storrs campus over the next 10 years. These investments represent a mix of infrastructure and new building construction, and

[48] It is important to note that the applicable reimbursement rate is not applied directly to the assessment, but instead to the product of the assessment and millage rate (which represents the tax payment the town would have received were the property not tax exempt). This means that the millage rate within a municipality impacts the amount of state aid the municipality received, which in practice "rewards" towns with higher millage rates. It is possible, in fact, that a municipality with a lower level of state-owned property could receive a higher PILOT payment than a municipality with a higher level of state-owned property. For example, Hartford, home of one of UCONN's regional campuses as well as many other state-owned buildings, has an actual PILOT payment approximately twice as high as Mansfield for FY 15 ($14.8 million vs. $7.6 million), because it has a millage rate nearly three times as high (74.29 vs 27.95). This implies that Hartford likely has a lower total assessed value of state-owned property than Mansfield, but nonetheless receives a significantly higher PILOT payment due to its considerably higher millage rate.

the exact increase in assessed value of state-owned that will result from this investment is unknown at this time. However, it is instructive to return to the data presented in Section 2.5 on the level of capital investment associated with UCONN 2000 and UCONN 21st Century and to compare that investment to the increase in assessed value of state-owned property in Mansfield over that 20-year period. The resulting ratio between capital investment and inflation-adjusted assessed value growth of 33 percent provides a useful proxy for anticipated assessed value growth that will result from NextGenCT capital investments, which is estimated at approximately $460 million (note that this ratio is reflective of the fact that assessed value is set at 70% of Fair Market Value).

It is important to emphasize that in practice, the ratio between capital investment and increases in assessed value of state-owned property within Mansfield observed from UCONN 2000 and UCONN 21st Century may not hold true for NextGenCT. One key variable is the type of capital investment undertaken. According to UCONN's planning office, NextGenCT program includes a number of investments that do not expand the physical footprint of the University, including repair and replacement of infrastructure (most of it underground), renovation and deferred maintenance on several existing buildings, equipment and support for new research, IT equipment, landscape projects, and parking facilities. The University's recent Master Plan indicates that significant nearly 500,000 square feet of space are estimated to be demolished over the next decade, offsetting nearly one-quarter of the new space anticipated to be added. While each of these investments may increase assessed value of state-owned land on the campus, the increment by which assessed value grows relative to capital investment levels may be reduced by the nature of the investment. Therefore, a range of potential increases in assessed value from NextGenCT capital investments are shown below, from 50 percent to 100 percent of the observed assessed value ratio from UCONN 2000 and 21st Century. This results in an estimate rate of approximately $230 million to $460 million (see Table 6.2).

TABLE 6.2 – ESTIMATED INCREASE IN STATE-OWNED PROPERTY ASSESSMENT IN MANSFIELD FROM NEXTGENCT CAPITAL INVESTMENT

Metric	Value
State-Owned Property Assessment FY 1996 (Oct 1994)	$336 million
State-Owned Assessment FY 1996 in $2014	$521 million
State-Owned Property Assessment FY 2014 (Oct 2012)	$1.15 billion
(=) Net Growth FY 1996 – FY 2014 (in $2014)	$629 million
(%) UCONN 2000/21st Century Capital Investment (in $2014)	$1.88 billion
(=) % of Capital Investment Reflected in Assessed Value Growth	33%
(x) Anticipated NextGenCT Capital Investment @ Storrs Campus	$1.39 billion
(=) Estimated Increase in State-Owned Property Assessment in Mansfield from NextGenCT by 2025	**$463 million**
Range of Assessed Value Increased based on Adjustment for the Character of NextGenCT Capital Investment (50-100%)	**$232 - $463 million**

Sources: Town of Mansfield, UCONN, Econsult Solutions

As dictated by formula, this increased assessment of $230 million to 460 million in state-owned property would result in a 20-40 percent increase in Mansfield's PILOT payment of $2.9 million to $5.8 million (from $14.5 million to anywhere from $17.4 million to $20.3 million). However, as noted previously, the PILOT payment in practice has taken additional components into consideration in recent years, as detailed below.

Tax Payment for State-Owned Property throughout Connecticut

Since the total PILOT payment is in practice constrained by fiscal limitation rather than awarded as an "entitlement" based on the calculation described above, the proportion of total state-owned property statewide that is within Mansfield is relevant to the PILOT amount ultimately awarded to Mansfield. Therefore, growth in state-owned property elsewhere in Connecticut, as well as local millage rates elsewhere in Connecticut, are a relevant factor in estimating the PILOT amount that Mansfield is likely to receive after the implementation of NextGenCT. The nature and magnitude of potential investments made by the state increasing the value of state-owned property over the next decade is unknowable and outside of the scope of this analysis.

State data on PILOT awards for FY 2015 shows that Mansfield is slated to receive $7.6 million out of a total award of $83.6 million, which represents 9.2 percent of the total state award. If Mansfield's PILOT award as a portion of the total award is in proportion with the portion of the calculated payment on state-owned property within the Town, this implies that the total calculated state-tax payment accounting for local millage rates, is

approximately $360 million,[49] and therefore that full funding of the line item would require an allocation of approximately $162 million, nearly double what was awarded for FY15.

Using this figure, it is possible to estimate the proportion of total state-owned property tax value that Mansfield might represent after the implementation of NextGenCT given the estimated range of increases in state owned assessed value that it may represent (as calculated in Table 6.2), and assumptions about potential increases in state-owned property value elsewhere in Connecticut. For example, the low-end scenario for the increase in state-owned assessed value in Mansfield attributable to NextGenCT, combined with an assumption of a 10 percent increase in state-owned property value elsewhere in Connecticut, would yield an increase in the proportion of statewide state-owned taxable value in Mansfield from 9.2 percent to 9.8 percent. By contrast, the high end scenario for the increase in state-owned assessed value in Mansfield attributable to NextGenCT, combined with an assumption of no increase in state-owned property value elsewhere in Connecticut, would yield an increase in the proportion of statewide state-owned taxable value in Mansfield from 9.2 percent to 12.3 percent (see Table 6.3).

TABLE 6.3 – ESTIMATED PROPORTION OF STATEWIDE TAX PAYMENT FOR STATE-OWNED LAND WITHIN MANSFIELD

Metric	Value
Mansfield PILOT Award, FY 2015	$7.6 million
(%) Total State PILOT Award to Local Municipalities, FY 2015	$83.6 million
(=) Proportion of Statewide Award to Mansfield, FY 2015	**9.2%**
Estimated Range of Proportion of Statewide State-Owned Tax Payment value within Mansfield after the Implementation of NextGenCT	**9.8% - 12.3%**

Sources: Town of Mansfield, UCONN, Econsult Solutions

Dollars Allocated to PILOT Line Item

The final variable in determining the actual PILOT payment received by Mansfield, in practice, is the size of the allocation to the PILOT fund. Assuming that funds are divided in proportion to the tax payment on state-owned land represented by each municipality, the actual tax payment for Mansfield is simply the proportion of statewide tax payment to Mansfield calculated in Table 6.3 multiplied by the size of the line item.

[49] This calculation assumes a 45% reimbursement rate, though in practice, the state tax payment calculated total is likely to be higher, since the reimbursement rate within this PILOT fund includes a 100 percent rate for state-owned prisons and a 65 percent rate for Connecticut Valley Hospital. This adjustment is not likely to materially impact the proportions shown, and does not impact the calculation of allocation level required to fully fund the line item.

According to State data, in FY 2015 the total statewide PILOT award for state-owned property was $83.6 million. Assuming for the moment that the allocation to the line item remains flat over the next decade, as has been the case for the past decade, it is possible to calculate the projected impact of NextGenCT investment on the Town's future PILOT payment. Using the range of proportions of statewide state-owned tax payment value held by Mansfield calculated in Table 6.3, Mansfield's actual PILOT payment would be projected to grow by $600,000 to $2.6 million over the FY 2015 level (see Table 6.4) as a result of capital investment associated with NextGenCT. This represents an increase of 7 percent to 35 percent relative to the FY 2015 payment of $7.65 million.

TABLE 6.4– ESTIMATED INCREASE IN MANSFIELD STATE PILOT PAYMENT RESULTING FROM NEXTGENCT CAPITAL INVESTMENT

Metric	Value
Estimated Proportion of Statewide Tax Payment Value to Mansfield (2025)	9.8 – 12.3%
(x) Current Statewide PILOT Allocation	$83.6 million
(=) Estimated Mansfield State PILOT Payment (2025)	**$8.2 – 10.3 million**
(-) Current Mansfield State PILOT Payment	$7.7 million
(=) Estimated Increase in Mansfield State PILOT Payment	**$0.6 - $2.6 million**
% Increase in Estimated Mansfield State PILOT Payment	7% - 35%

Sources: Town of Mansfield, UCONN, Econsult Solutions

6.4. NEW PILOT LEGISLATION

In June 2015, the Connecticut Legislature passed a budget bill that, among other provisions, overhauls the distribution of PILOT funds for state-owned properties to municipalities in future years. The bill replaces the PILOT funding process described in Section 6.3 with a tiered approach under which municipalities receive a fixed PILOT reimbursement percentage for state-owned property based on their relative rank in tax-exempt property within the state. Given that Mansfield has the largest proportion of tax-exempt property value in the state (57 percent), it will likely be assigned to the top tier of municipalities (of which there are ten), receiving the highest reimbursement rate on state-owned property. Tier 1 municipalities are scheduled to receive a minimum 32 percent reimbursement rate on state-owned property (see Table 6.5).

TABLE 6.5 – MINIMUM STATE PROPERTY REIMBURSEMENT BY TIERS UNDER NEW BUDGET LEGISLATION

Tier	Municipalities	Minimum State Property Reimbursement Rate
1	10 municipalities with the highest percentage of tax-exempt property and a mill rate of at least 25	32%
2	Next 25 municipalities with a mill rate of at least 25	28%
3	All other municipalities	24%

Source: State of Connecticut

This change is estimated by the Connecticut Office of Fiscal Analysis to produce an increase of $2.63 million, or 25 percent, above Mansfield's current PILOT allocation of $7.65 million. The legislation schedules an increase in PILOT payment to Mansfield over current levels in that amount for FY 2017, prior to the full implementation of the tiered system in FY 2018.

However, while the 32 percent is described in the legislation as a "minimum" reimbursement level, the bill makes provisions for the distribution of funds if the funding level of the PILOT line item is insufficient for all municipalities to receive the "minimum" they are entitled to by the formula. Two of these provisions suggest that the Town is likely to see a sustained increase in its PILOT payment relative to the current level, even if the total size of the line item does not increase:

1) The legislation states that when distributions are reduced due to the size of the line item, the reduction must be done "such that the tier one and tier two grants are 8 percentage points and 4 percentage points greater than the tier three grants, respectively; and

2) The incremental amount paid to tier one and tier two municipalities beyond what is owed to tier three municipalities will be paid from a separate fund, a "select PILOT account…capitalized with sales tax revenue transferred from the municipal revenue sharing account."

The assurance of greater reimbursement levels even in the event of less than full funding of the PILOT line item, combined with a funding source for this incremental payment outside of the larger PILOT line, suggests that Mansfield is very likely to receive a higher payment proportional to its current share of total state-owned taxable value than it currently does. However, the level of funding for the line item is still a controlling factor in the ultimate calculation, meaning that the amount of future distributions is still ultimately unknown.

In addition, as noted in Section 6.3, the successful implementation of NextGenCT is projected to result in significant increases in state-owned property value within Mansfield.

Under the new budget formula, this property value growth would be captured at the tier one reimbursement rate moving forward, as long as Mansfield remained in the top tier (top 10) of municipalities in terms of its proportion of state-owned properties (a ranking that will only be enhanced by the increase in exempt assessed value associated with NextGenCT).

Table 6.6 below estimates the magnitude of impact that the successful implementation of NextGenCT would likely have on the Town's PILOT payment under the legislated minimum reimbursement rate of 32 percent. As described in Section 6.3 and Table 6.2, the increase in state-owned property assessment associated with NextGenCT can be estimated by comparing the level of capital investment associated with UCONN 2000 and UCONN 21st century to the inflation-adjusted increase in state-owned assessed value in Mansfield over the past two decades, yielding a ratio of 3:1, meaning that 33 percent of capital investment was captured in increased property value assessment. This estimate can then be applied to the anticipated capital investment in the Storrs campus under NextGenCT, applying a range of 50 to 100 percent realization of value due to the differential nature of NextGenCT investment relative to UCONN 2000 and UCONN 21st Century, the ultimate implications of which on state-owned assessed value are unclear. Applying this range to the projected investment of $1.39 billion yields an estimated increase of $260 million to $460 million in Mansfield as a result of NextGenCT. Under the current mill rate and reimbursement rate of 32 percent associated with the top tier of Towns, additional state-owned assessed value anticipated to be added by NextGenCT would produce an increase in $2.1 million to $4.1 million, a 27 to 54 percent increase over the current $7.65 million level, in the Town's annual PILOT payment from the State.

TABLE 6.6– ESTIMATED INCREASE IN MANSFIELD STATE PILOT PAYMENT UNDER TIER ONE PILOT CALCULATION

Metric	Value
% of Capital Investment Reflected in Assessed Value Growth	17%-33%
(x) Anticipated NextGenCT Capital Investment @ Storrs Campus	$1.39 billion
(=) Estimated Increase in State-Owned Property Assessment in Mansfield from NextGenCT by 2025	**$262 - $463 million**
(x) Applicable Mill Rate	2.795%
(x) Applicable Reimbursement Rate (Tier One)	32%
(=) Formula PILOT Payment	**$2.1 - $4.1 million**

Sources: Town of Mansfield, UCONN, Econsult Solutions

As discussed, while the 32 percent reimbursement rate is listed as a "minimum" rate for tier one, provisions have been made within the bill to reduce that rate if sufficient funds are not allocated. However, this reduction will still result in a higher reimbursement rate for tier one municipalities, meaning that if the total line item were to remain identical to

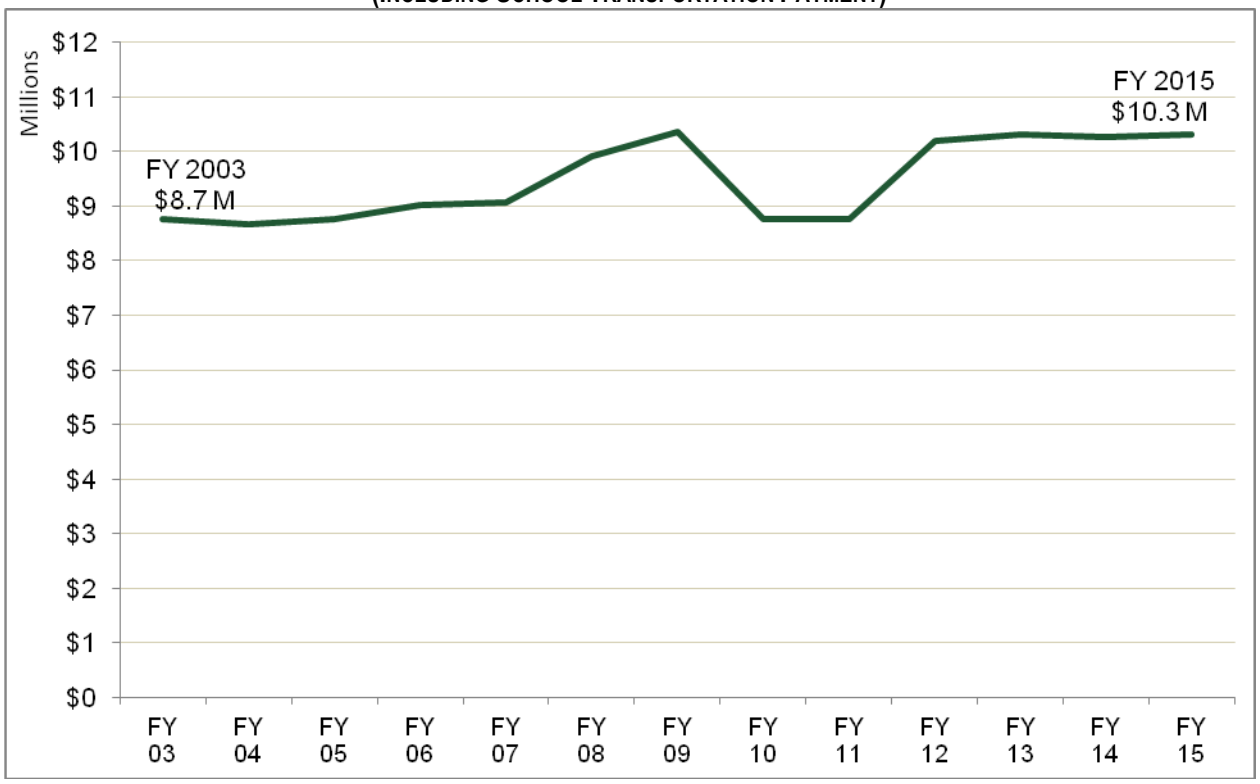
the current allocation, Mansfield's proportion would increase over its existing allocation, which was calculated without a tiered structure. Section 6.3 estimated that under the current PILOT calculation, the implementation of NextGenCT was likely to result in an increase in the Town's PILOT payment of $0.6 million to $2.6 million under the previous PILOT structure (Table 6.4). In practice, it is likely that the actual increase received by the Town would fall somewhere within these two overlapping ranges, although as noted there is presently significant uncertainty about amounts and proportions.

6.5. STATE EDUCATION AID

The other major source of state funding for Mansfield, and most municipalities in Connecticut, is the education aid grant. Like the PILOT system, the education aid dispersal is driven in part by the fact that local municipalities are highly reliant on property tax for local funding, which tends to lead to greater funding per pupil available from local sources for wealthier municipalities. To address potential inequities, the education aid calculation has a town wealth component, which serves to direct additional funds to needier towns, as well as multipliers for low income and limited-English-proficiency students. The inclusion of town wealth in the calculation means that the implementation of NextGenCT and attendant impacts addressed throughout this report also may result in changes to the calculated education aid payment to Mansfield.

According to state data, total statewide education grants to municipalities have grown by approximately 2.5 percent in each of the last two fiscal years, reaching $2.04 billion in FY 2015. Aid payments to Mansfield have been flat over that time, varying by less than 0.5 percent over the past three years. Mansfield's payment, including an additional state school transportation grant of $121,000, totaled $10.3 million in FY 2015, meaning that Mansfield receives approximately ½ cent out of every dollar awarded statewide. Figure 6.4 below shows the annual education aid payments received by Mansfield from FY 2003 to 2015.

FIGURE 6.4 – ANNUAL STATE EDUCATION AID PAYMENTS TO MANSFIELD, FY 2003-2015 (INCLUDING SCHOOL TRANSPORTATION PAYMENT)

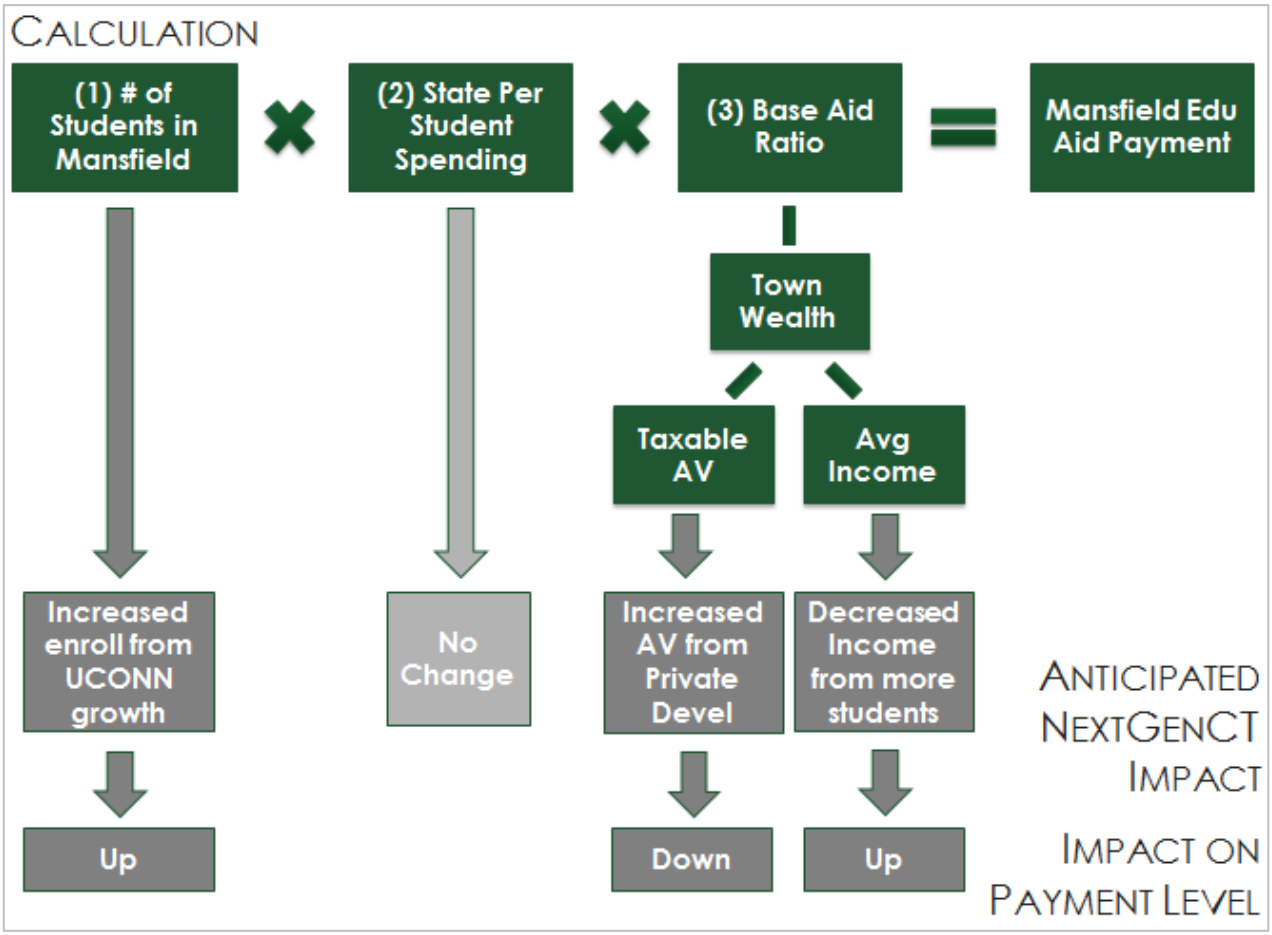


Source: Town of Mansfield

Figure 6.5 below illustrates the mechanics of this calculation, in green, and identifies the anticipated directional impacts of NextGenCT on the calculation, and the impacts of those changes on the level of PILOT revenues the Town might expect to receive post-implementation. Each component is discussed in greater detail below.

Relative to the PILOT formula discussed in Section 6.3, the education aid formula is both more complex and less directly impacted by the implementation of NextGenCT. Therefore, precise estimates of these impacts are not calculated in terms of their effect on the dollar value of the aid payment, but rather they are discussed in terms of their directional impact.

FIGURE 6.5– FLOW CHART OF STATE EDUCATION AID CALCULATION AND POTENTIAL IMPACTS FROM UNIVERSITY GROWTH ASSOCIATED WITH NEXTGENCT



Source: Econsult Solutions

Student Enrollment in Mansfield

As discussed in Sections 2.10 and 4.3, increases in Storrs campus faculty and staff employment levels, as well as graduate student enrollment, are likely to lead to increases in the university-affiliated population living in Mansfield and accordingly the number of school-age children attending public school within Mansfield. As previously noted, it is possible for university growth to result in a net increase in the university-affiliated school enrollment population even if total school enrollment is declining.

The implementation of NextGenCT is anticipated to result in an increase in UCONN-affiliated school enrollment population of approximately 19 to 57 students, as calculated

in Section 4.3. This increase in enrollment would result in an increase in Mansfield's calculated education share payment.[50]

Statewide per Student Spending

Per pupil allocations under the formula are set by state law and are unaffected by the implementation of NextGenCT.

Base Aid Ratio

The base aid ratio for each town is determined by its wealth, with more affluent towns receiving a lower ratio, and thus a lower level of state aid per student. Town wealth is determined by a combination of property tax and income, using the metrics listed below. In each case, higher values would result in a lower base aid ratio, and thus a lower state education aid calculation for Mansfield.

- Taxable property value per K-12 student
- Taxable property value per capita
- Median household income
- Income per capita

As noted in Section 3.4 and elsewhere in the report, the successful implementation of NextGenCT could have a significant impact on the privately held property value within the Town. Generally speaking, the fiscal implications of this growth are very positive, in that it will result in increased property tax revenue for the Town; however, growth in privately held taxable property associated with NextGenCT would result in a reduction in the Town's education aid payment. Section 3.5 discusses the magnitude of potential growth in the Town property tax base – it is unclear from the construction of the formula how significant an impact this growth may have on Mansfield's education aid calculation.

It should also be noted that while undergraduate students are included in the denominator of the per capita calculation (meaning that growth in student population would offset some of the growth in the taxable property value per capita metric) NextGenCT is likely to result in a relatively small increase in the K-12 student population (as discussed in Section 4.3). Again, while this is largely a positive from a fiscal standpoint, it means that taxable property value per student should increase, potentially

[50]The state formula also "credits" districts with an additional 33 percent for students from low-income families eligible for federal assistance and an additional 15 percent for each limited-English-proficient (LEP) student not participating in bilingual education programs. It is unlikely that the proportion of students in Mansfield within either of these "need student" categories would be materially impacted by implementation of NextGenCT.

significantly, as a result of NextGenCT, which may reduce the Town's education aid payment.

Conversely, the significant volume of undergraduates in the Town has a depressing effect on the Town's per capita income as reported in the Census, which serves to improve the Town's base aid ratio and thus increase its calculated education aid payment. Table 6.5 below shows the results of ESI analysis of the per capita income of Mansfield residents categorized as "Enrolled in a Public College" in the 2010 Census relative to the non-student population of the Town. Per capita income for the student group was just over $4,000 per year, while the non-student group averaged more than $35,000. The two groups are distributed in nearly equal proportions according to the Census data, yielding a town wide per capita income of just under $20,000. In other words, without UCONN students, the Town's per capita annual income would be approximately 75 percent higher, which would result in a reduction in education aid per the state's formula.

TABLE 6.6 – MANSFIELD CENSUS-REPORTED PER CAPITA INCOME WITH AND WITHOUT STUDENTS "ENROLLED IN A PUBLIC COLLEGE"

Metric	Mansfield: Total	Mansfield: Students only	Mansfield: non-Students
Population	26,379	13,413	12,966
Population "Enrolled in a Public College"	13,413	13,413	0
Total Annual Income	$513 million	$55 million	$458 million
Per Capita Income	**$19,450**	**$4,130**	**$35,310**

Sources: Econsult Solutions analysis of U.S. Census 2010 Data

While Census data struggles to accurately account for all students in a location,[51] it is clear that the per capita income of the Town is significantly lower due to the volume of undergraduate students resulting from UCONN's presence than it would otherwise be. This results in a more favorable base aid ratio for the town, improving Mansfield's calculated education aid payment. Additional increases in the undergraduate student population associated with NextGenCT would amplify this effect.

The household income calculation, by contrast, is relatively unaffected by students, because they are not categorized by the Census as member "households" in the

[51] Challenges in capturing students with Census data account for differences in the student population within Mansfield reported above, drawn directly from the Census, and data presented elsewhere in the report on the student population within Mansfield based on UCONN estimates, which are likely to be far more accurate. For the purpose of the education aid payment calculation, however, the Census data is relevant even if inaccurate, since it forms the basis for the calculation.

community where they attend school. In total, therefore, Mansfield has slightly more than 5,000 households for its more than 26,000 residents. To the extent that NextGenCT increases the number of faculty and staff living in Mansfield, and facilitate increased commercial activity, it may increase household income in the Town to some degree, which would have a negative effect on the Town's base aid calculation.

In sum, the likely direction of the impact of implementation of NextGenCT on Mansfield's calculation education aid payment is unclear:

- Increases in K-12 student enrollment associated with NextGenCT would increase the calculated aid payment
- Increases in taxable property value associated with NextGenCT would decrease the calculated aid payment
- Decreases in per capita income associated with NextGenCT would increase the calculated aid payment, while increases in median household income associated with NextGenCT may offset some of that effect

Given the uncertainty around the magnitude of NextGenCT's impact on each variable, combined with the uncertainty of the magnitude of impact of a change in a given variable on the Town's calculated education aid payment, **the overall implications of NextGenCT for the Town's future education aid payment cannot be determined at this time**.

6.6. SUMMARY AND IMPLICATIONS

State aid payments, specifically the state-owned land PILOT and education aid grant, represent an important revenue source for the Town. Mansfield is believed to be unique among municipalities in Connecticut in that the value of its state-owned property exceeds the value of privately owned property, a circumstance that makes Mansfield uniquely reliant on state revenue transfers relative to other municipalities.

The implementation of NextGenCT is likely to increase the PILOT payment for state-owned land, as the significant capital investment at the Storrs campus is expected to generate an increase in state-owned assessed property value within the Town over the next decade. Based on the observed ratio between capital investment and assessed value from the UCONN 2000 and UCONN 21st Century initiatives over the past two decades, the increased payment to Mansfield as per the PILOT formula is estimated at $5.8 million. However, as the Town is well aware, the PILOT payment has not been funded to its calculated level over the past decade. Using current ratios of payment and an estimate of state-owned property value growth elsewhere in the state, the capital investment within the Town from NextGenCT is estimated to increase the Town's PILOT

payment by $0.6 million to $2.6 million. The impacts from NextGenCT on the Town's calculated education aid payment, meanwhile, are unclear, given that some elements of NextGenCT are likely to increase the calculated payment while others are likely to decrease it, and relative magnitudes of each are unclear at this time.

The recent passage of a revision to the formula for calculating PILOT payments in future years appears beneficial to the Town, in that it stands to be a part of the "tier one" of municipalities which receive PILOT reimbursements at a higher rate than others across the state. This change should increase the current PILOT amount that the Town receives for existing state-owned property value within the Town (primarily on the UCONN campus). It may also enhance the fiscal impact of additional assessed value added as a result of the capital investment associated with NextGenCT above the $0.6 million to $2.6 million projected under the current formula, although the exact magnitude of the increase will depend on both the implementation of the program and the future direction of state policy and funding for PILOT payments.

In sum, UCONN capital growth has significant impacts on the level of State support received by Mansfield, and potentially more so than ever given the new PILOT formula. Nonetheless, **the relative uncertainty of future State revenues puts the Town in a challenging position given the degree to which its budget relies on State grants**. This fact further emphasizes the need for the Town to capitalize on opportunities associated with NextGenCT for the Town to grow its privately held property tax base, as discussed throughout this report.

7. LOCAL BUDGET IMPLICATIONS OF NEXTGENCT

7.1. OVERVIEW

The purpose of this section is to describe the budget model that was produced by the consulting team in conjunction with this report. This budget model captures the relationships derived from the analyses in this report in order to translate various UCONN growth inputs into their commensurate consequences on Town revenues and/or expenditures. It is intended to be used by the Town as a planning tool, so that as UCONN proceeds with its implementation of NextGenCT, the Town has some guidance on the revenues and expenditures that will result from that investment and growth.

7.2. BUDGET MODEL OVERVIEW

The purpose of this budget model is to give the Town the ability to understand the implications on its annual operating budget of various growth scenarios for NextGenCT. This budget model provides some room to input other non-NextGenCT variables, but it is assumed that any larger explorations would have to be undertaken separately (e.g. changing the way the Town provides policing, looking at the cost savings from school consolidation).

Practically speaking, this local budget model can be used by the Town to adjust projected inputs into the Town operating budget on an annual basis. These adjustments may be based on newly available actual data on UCONN growth that has occurred as a result of NextGenCT and/or newly revised projected data on UCONN growth that may occur as a result of NextGenCT. They may also be based on newly available actual data on Town expenditure levels and/or on newly revised projections of Town expenditure trends.

This budget model has been constructed to be user-friendly in that it will allow non-technical users to input numbers onto a clean interface screen and have results automatically generated onto a clean output screen. The model is also user-friendly in that it enables many relevant drivers of budget change to be experimented with within the confines of the spreadsheet, so that the effect of those changes on the Town's operating expenditures can be tested.

7.3. BUDGET MODEL CONTENT

The budget model essentially translates budget inputs into budget outputs for the time period covered by NextGenCT using the same relationships determined for per capital marginal expenditures attributable to UCONN 2000 and UCONN 21st Century, and for growth in costs.

Essentially, it solves for the next year's expenditure estimate in a given expenditure category by utilizing the following components:

- Previous year's expenditure – The most recent actual amount is pre-loaded but this amount can be overridden.



- Population growth costs from non-UCONN sources – Pre-loaded at 0.6 percent annually based on the 20 year trend, this number can be overridden based on the Town's budgeting process. The expenditure implications of this growth are calculated based on the calculated 2014 marginal cost per town resident, with no adjustment for cost increases at this stage.



- Population Growth from NextGenCT – This input will be set to reflect the annual population scenarios associated with the high-end and low-end scenarios. The expenditure implications of this growth are calculated based on the calculated 2014 marginal cost per town resident, with no adjustment for cost increases at this stage.



- Growth adjusted budget level – together, these inputs produce a growth-adjusted budget level, which defines a new "baseline" expenditure by incorporating population growth into the previous year's budget level, but has not yet adjusted for cost factors.



- General inflation - The 20-year average of 2.5 percent per year is pre-loaded but this amount can be overridden.



- Category-specific inflation – The 20-year average for each category is pre-loaded but this amount can be overridden.



- Service quality or quantity change – This will be blank for now but can be populated as either a catch-up or a reduction, as determined by the Town.



- Next year's expenditures – This calculation is now adjusted for population growth, cost growth, and service level changes.

7.4. NEXTGENCT IMPACTS – SERVICE EXPENDITURES

It is possible to deduce from the budget model the level of increase attributable to UCONN-affiliated population growth from this figure, however, it is important to recall that this calculation will be in nominal dollars, while the calculations presented in Section 4 are in $2014.

The impact of NextGenCT on a given expenditure category is the product of:

1. Increase in relevant UCONN population (including on and off campus for some categories, and off-campus only for others, are reviewed in Section 2 and 4) resulting from NextGenCT. The high and low amounts are pre-loaded but a custom number can be inputted.

2. Historical relationship between increases in the relevant UCONN population and increases in categorical expenditures – i.e. the 2014 marginal cost for per new UCONN population as determined in Section 2. This is based on the relationships determined from the analysis of UCONN 2000 and UCONN 21st Century, but can be overridden if desired.

3. Historical trend in annual cost per person increases for categorical expenditures, due to a combination of general inflation and any additional inflation specific to this spending category. This is calculated based on observed trends from the past two decades, but can be overridden if desired.

Note that actual expenditure levels will also be impacted by decisions to increase or decrease service quality levels. However, this adjustment is outside of the scope of expenditure change attributable to NextGenCT growth, which is by definition calculated at a consistent service level.

Budget model calculations also include projected increases in capital expenditures for "base needs," as discussed in sections 2.9.7 and 4.3.7 of this report. These calculations assume a linear relationship between population growth and base capital needs, although expenditures in a given year may fluctuate based on specific needs.

7.5. NEXTGENCT IMPACTS: EDUCATION EXPENDITURES

7.5.1. PRE-K TO 8 EXPENDITURES

The estimate of NextGenCT's contribution to next year's pre-K to 8 expenditure amount is the product of four inputs:

1. Increase in overall UCONN off-campus population resulting from NextGenCT. The high and low amounts are pre-loaded but a custom number can be inputted.

2. Average pre-K to 8 students per UCONN household. The historical average is pre-loaded but a custom number can be inputted.

3. Marginal cost per pre-K to 8 student. The current estimated amount is pre-loaded but a custom number can be inputted.

4. Annual increase in marginal cost per pre-K to 8 student. The historical average is pre-loaded, but a custom number can be inputted. This calculation is in fact the product of two factors, inflation and category specific cost growth, each of which can be adjusted.

7.5.2. 9-12 EXPENDITURES

The estimate of NextGenCT's contribution to next year's 9-12 expenditure amount is the product of four inputs:

1. Increase in overall UCONN off-campus population resulting from NextGenCT. The high and low amounts are pre-loaded but a custom number can be inputted.

2. Average 9-12 students per UCONN household. The historical average is pre-loaded but a custom number can be inputted.

3. Average cost per 9-12 student. The current estimated amount is pre-loaded but a custom number can be inputted.

4. Annual increase in marginal cost per 9 to 12 student. The historical average is pre-loaded, but a custom number can be inputted. This calculation is in fact the product of two factors, inflation and category specific cost growth, each of which can be adjusted.

8. CONCLUSION

The analyses in this report, of the estimated actual impact of UCONN 2000 and UCONN 21st Century and of the projected future impact of NextGenCT, suggest that NextGenCT will represent, through one-time capital investments and ongoing increases in economic activity levels in the Town, **significant economic impacts within the Town economy and significant fiscal benefits to the Town government**. They also conclude that those same increases in activity levels will likely necessitate **higher service and education expenditures by the Town**.

Importantly, these higher expenditure levels can also be mitigated in several ways. First, the Town and UCONN stand to gain from considering **shared service arrangements and other collaborative partnerships**, particularly as it relates to transportation, public safety, and economic development. Second, the Town is likely to receive **larger payments from the State** from the increase it will see in the assessed value of State-owned land as NextGenCT is implemented.

The ultimate size of the economic gains and expenditure increases will depend in part on **what level of growth NextGenCT will produce in terms of increases in student enrollment, faculty/staff headcount, and economic development spin-off**, which is unknown at this time. It will also depend in part on **how much the Town chooses to capture the net new demand for residential space and commercial activity generated by that growth**.

The experience of the past two decades suggests that **the economic gains can be larger than the expenditure increases**, particularly if the newly instituted State PILOT payment formula proves favorable to the Town over time and allows it to capture revenue from assessed value growth from UCONN's capital investment on its campus. However, the experience of the past two decades also suggests that the Town's service and education costs have risen due to cost factors beyond inflation and population growth and that the Town's reliance on State funding as such a significant component of its budget can be problematic given its lack of control over this funding source. Therefore, the economic and fiscal implications of NextGenCT are best viewed not as isolated on an accounting ledger, but as connected to the broader long-term strategy for the Town and its approach to generating sufficient revenue to maintain and enhance quality of life.

A careful analysis of the implication of historic University growth suggests that if the Town is able to continue to capture a similar proportion of population and economic activity resulting from this growth, it may be able to generate a level of local tax base growth commensurate with its growing service and education costs. Doing so, however, may require **Town investments and policy choices to position the Town to capitalize on growth in demand catalyzed by NextGenCT for additional residential, retail, and innovation space**. This is consistent with the Town's vision for smart growth, as articulated in its recently published *Mansfield Tomorrow* plan, which envisions a strategy

that both respects the Town's rural character and accommodates growth in selected areas to enhance the Town's ability to generate revenues at the local level.

The example of **Storrs Center** is instructive. Made possible by increased demand for residential space and commercial activity as a result of growth by UCONN, Storrs Center is a mixed-use development that capitalizes on proximity to campus and that is located on a site that can support such uses. Storrs Center represents a capturing of UCONN-generated growth (and the attendant economic activity and property tax revenue gains) within Town boundaries without disturbing the Town's overall character.

The Town will need to determine whether and where to make similar infrastructure investments to accommodate additional UCONN growth, in order to stabilize and expand its tax base to offset rising service and education costs. Municipal service and education expenditures have risen over time due both to inflation and additional cost drivers that outpace traditional revenue growth sources. Since a high proportion of those expenditures are fixed in nature, on a per capita basis they rise as population decreases and fall as population increases. This means that each marginal new resident costs less than to serve than the average resident – particularly those that have many of their services provided for by an institution like a university. However, **absent any growth in tax bases, the Town will need to continue to increase tax rates and/or reduce service quality as a result of increasing municipal costs**, regardless of whether the service needs associated with the University population increase.

Alternatively, **the Town may choose to make the necessary infrastructure investments and commitments to accommodate growth in population and economic activity, and reap the property tax revenue gains that come with it**. This analysis of the past effect of UCONN 2000 and UCONN 21st Century and the projected future effect of NextGenCT suggests that gains from increased economic activity can offset any attendant increases in service and education expenditures, if the appropriate investments are made so that the Town is capturing a sufficient share of the increase in demand for residential space and commercial activity that result from growth by UCONN.

APPENDIX A – INTERVIEWS AND MEETINGS CONDUCTED

January 05, 2015: Project Kick-Off Meeting

Mansfield Attendees:

- Capriola, Maria, Assistant Town Manager
- Hart, Matt. Town Manager
- Painter, Linda, Director of Planning and Development

UCONN Attendees:

- Vasington, Sean. Associate Director of University Planning.
- Wood, Beverly. Director of University Planning.

February 10, 2015: UCONN Informational Meetings

UCONN Attendees:

- Atherton, Dwight. Parking Manager.
- Callahan, Thomas. Associate Vice President Infrastructure Planning & Strategic Project Management.
- Freniere, Janet. Transportation Services Administrator.
- Garvais, Lynn. Administrative Specialist II.
- Gilbert, Michael. Vice President of Student Affairs.
- Husick, Tanya. Transportation Planner.
- Jednak, Michael. Associate Vice President, Facilities Operations & Building Services.
- Kruger, Eric. Director, Trade Services.
- Nolan, Stanley. Director, Utility Operations & Energy Management.
- O'Connor, Barbara. Chief of Police.
- Reis, Sally. Vice Provost for Academic Affairs.
- Rhynhart, Hans. Deputy Police Chief.
- Silbart, Lawrence. Vice Provost for Strategic Initiatives.
- Vasington, Sean. Associate Director of University Planning.
- Wendt, William. Director of the Office of Logistics Administration.
- Weston, Anthony. Director, Planning Services.
- Wood, Beverly. Director of University Planning.
- Wrynn, Reka. Director, Capital Budget Planning & Special Projects.

March 09, 2015. Internal UCONN-Town presentation.

UCONN Attendees:

- Armstrong, John. Director, Off-Campus Student Services.
- Callahan, Thomas. Associate Vice President Infrastructure Planning & Strategic Project Management.
- Cruickshank, Laura. Master Planner and Chief University Architect.
- Gilbert, Michael. Vice President of Student Affairs.
- O'Connor, Barbara. Director of Public Safety and Chief of Police.
- Rhynhart, Hans. Deputy Police Chief.
- Silbart, Lawrence. Vice Provost for Strategic Initiatives.
- Vasington, Sean. Associate Director of University Planning.
- Wendt, William. Director of the Office of Logistics Administration.
- Wood, Beverly. Director of University Planning.

Mansfield Attendees:

- Hart, Matt. Town Manager.
- Painter, Linda. Director of Planning and Development.

March 09, 2015. Presentation to Mansfield Town Council Meeting

Attendees: Mansfield Town Council, members of the public

March 10, 2015. Town-Gown Committee

Attendees: Town-Gown Committee members

Additional Interviews conducted by Consulting Team Members:

- Name: Lawrence Silbart
  Title: Vice Provost for Strategic Initiatives
  Organization: UCONN
  Date: 1/8/15

- Name: Tom Callahan
  Title: Associate Vice President Infrastructure Planning & Strategic Project Management
  Organization: UCONN
  Date: 2/10/15

- Name: Rebecca Nolan
  Title: VP Business Development
  Organization: Metro Hartford Alliance
  Date: 2/10/15

- Name: Mathew Hart
  Title: Mansfield Town Manager
  Organization: Town of Mansfield
  Date: 2/22/15, 2/27/15

- Name: John Carrington
  Title: Director of Public Works
  Organization: Town of Mansfield
  Date: 3/10/15

- Name: Linda Painter
  Title: Director of Planning and Development
  Organization: Town of Mansfield
  Date: 3/10/15

- Name: Paul Parker
  Title: Director of Technology Incubation Program
  Organization: UCONN
  Date: 3/10/15

- Name: Cherie Trahan
  Title: Director of Finance
  Organization: Town of Mansfield
  Date: 3/10/15

- Name: Rita Zangari
  Title: Director of Innovation Programs – Office of the Vice President for Research Technology Commercialization Services
  Organization: UCONN
  Date: 3/10/15

- Name: Aliza Wilder
  Title: Director of Human Resources
  Organization: UCONN
  Date: 3/18/15

- Name: Beverly Wood
  Title: Director of University Planning

Organization: UCONN
Date: 5/4/15, 5/6/15, and 5/12/15

- Name: Tanya Husick
  Title: Transportation Planner
  Organization: UCONN
  Date: 5/20/15

APPENDIX B – ECONOMIC AND FISCAL IMPACT METHODOLOGY

Overview

Economic impact estimates are generated by utilizing input-output models to translate an initial amount of direct economic activity into the total amount of economic activity that it supports, which includes multiple waves of spillover impacts generated by spending on goods and services and by spending of labor income by employees. This section summarizes the methodologies and tools used to construct, use, and interpret the input-output models needed to estimate this project's economic impact.

Input-Output Model Theory

In an inter-connected economy, every dollar spent generates two spillover impacts:

- First, some amount of the proportion of that expenditure that goes to the purchase of goods and services gets circulated back into an economy when those goods and services are purchased from local vendors. This represents what is called the "indirect effect," and reflects the fact that local purchases of goods and services support local vendors, who in turn require additional purchasing with their own set of vendors.
- Second, some amount of the proportion of that expenditure that goes to labor income gets circulated back into an economy when those employees spend some of their earnings on various goods and services. This represents what is called the "induced effect," and reflects the fact that some of those goods and services will be purchased from local vendors, further stimulating a local economy.

The role of input-output models is to determine the linkages across industries in order to model out the magnitude and composition of spillover impact to all industries of a dollar spent in any one industry. Thus, the total economic impact is the sum of its own direct economic footprint plus the indirect and induced effects generated by that direct footprint.

Input-Output Model Mechanics

To model the impacts resulting from the direct expenditures Econsult Solutions, Inc. developed a customized economic impact model using the IMPLAN input/output modeling system. IMPLAN represents an industry standard approach to assess the economic and job creation impacts of economic development projects, the creation of new businesses, and public policy changes.

IMPLAN is one of several popular choices for regional input-output modeling. Each system has its own nuances in establishing proper location coefficients. IMPLAN uses a location quotient to determine its regional purchase coefficient (RPC). This represents the proportion of demand for a good that is filled locally; this assessment helps determine the multiplier for the localized region. Additionally, IMPLAN also accounts for inter-institutional transfers (e.g. firms to households, households to the government) through its Social Account Matrix (SAM) multipliers. IMPLAN takes the multipliers and divides them into 440 industry categories in accordance to the North American Industrial Classification System (NAICS) codes.

Fiscal Impact Model

The IMPLAN model provides estimates of the economic impact of a new project or program on the regional economy. It does provide only a rough estimate of the combined fiscal impact of the increased economic activity on state and local governments. Consequently, Econsult has constructed a model that takes the output from the IMPLAN model and generates detailed estimates of the increases in state and local tax collections that arise from the new project. Those revenues are a part of the total economic impact of a new project that is often ignored in conventional economic impact analyses.

The IMPLAN model provides estimates of direct, indirect, and induced expenditures, labor income, and employment within the defined region. The Econsult fiscal impact model combines the IMPLAN output with the relevant tax types and tax bases associated with the jurisdiction or jurisdictions for which fiscal impact is being modeled. Specifically, the estimated labor income supported by the direct, indirect, and induced expenditures generated by the model are used to apportion the net increase in the relevant tax bases and therefore in those tax revenue categories. The resulting estimates represent the projected tax revenue gains to the jurisdiction or jurisdictions as a result of the increased business activity and its attendant indirect and induced effects.

Employment and Wages Supported

IMPLAN estimates the direct jobs employed by the project or activity being modeled. These estimated direct jobs will be displayed in the report unless the number of jobs is known beforehand by the project's owner, and if provided, will be noted in the body of the report. The project/activity expenditures also support induced and indirect jobs. These are jobs not directly employed by the project, but instead are employees who work for the project's vendors and employees who work at businesses frequented by those employees directly employed by the project. We report the total jobs supported by the project, therefore all direct, indirect, and induced jobs. These jobs are a mix of full-time and part-time jobs.

IMPLAN generates job estimates based on the term job-years, or how many jobs will be supported each year. For instance, if a construction project takes two years, and IMPLAN estimates there are 100 employees, or more correctly "job-years" supported, over two years, that represents 50 jobs each year. The 50 jobs represent the annualized number of jobs supported by the construction project. The job can be the same each year such as the coffee barista serving the directly employed construction workers or different if in the first year of the project a welder is needed and in the second year of the project an electrician is required.

The total income is for all direct, indirect and induced jobs. It includes proprietor income, wages, and all benefits. Since many projects/events require the employment sourced from multiple industries, the average wages paid will be different per industry. Therefore, it is not correct to divide the total labor income and divide it by the total job-years to derive an average employee compensation estimate.

APPENDIX C – NOMINAL PER-YEAR CAPITAL INVESTMENT BY THE UNIVERSITY OF CONNECTICUT IN THE TOWN OF MANSFIELD FROM 1996 TO 2014

TABLE C.1 NOMINAL PER-YEAR CAPITAL INVESTMENT BY THE UNIVERSITY OF CONNECTICUT IN THE TOWN OF MANSFIELD FROM 1996 TO 2014 (IN $MILLIONS)

Fiscal Year	Capital Spending
1996	53.6
1997	53.6
1998	53.6
1999	134.8
2000	157.3
2001	36.1
2002	99.8
2003	201.5
2004	164.7
2005	23.5
2006	63.8
2007	31.9
2008	46.8
2009	37.5
2010	64.4
2011	66.0
2012	73.0
2013	93.4
2014	55.0
Total	$1,510.3

Source: UCONN Finance Department Estimates

APPENDIX D – SHARE-DOWN PROPORTIONS OF COUNTY-LEVEL ECONOMIC IMPACTS FROM THE UNIVERSITY OF CONNECTICUT TO ECONOMIC IMPACTS WITHIN THE TOWN OF MANSFIELD

As noted in Section 2.4, estimates of the economic and employment impact are modeled at the County level. Results for Tolland County are then shared down to produce estimates for Mansfield using known ratios of economic activity between Tolland County and Mansfield. This appendix details the sources and ratios used for this calculation.

Table D.1 presents the known ratios and direct inputs used to estimate the proportion of modeled Tolland County economic activity taking place in Mansfield. Letters (*A*) through *(D)* correspond with ratios described below the table.

TABLE D.1 – ESTIMATED PROPORTION OF TOLLAND COUNTY ECONOMIC ACTIVITY IN MANSFIELD

Impact Type	Capital Investments	Operations	Student Spending
Economic Output			
Direct	100% *(A)*	100% *(A)*	100% *(A)*
Indirect	19% *(B)*	19% *(B)*	19% *(B)*
Induced	7% *(C)*	20% *(D)*	7% *(C)*

Source: Econsult Solutions, Inc. (2015)

- *(A):* Direct activity: All direct spending associated with the investments in and operations of the Storrs Campus is assumed to have taken place in Mansfield. For student spending, estimated capture rate within the Town of direct spending activity is calculated as described in Appendix E, therefore, modeled results are also reflective of direct activity taking place within the Town.

- *(B):* Proportion of Tolland County employment within Mansfield (net of UCONN): Longitudinal Employer-Household Dynamics (LEHD) data from the U.S. Census provides both employment and employee counts at specified geographies. Employment counts serve as a proxy for the ratio of economic activity between two geographic levels, and can thus be used to estimate the proportion of indirect (supply chain) activity and employment from capital, operations and student spending that accrues within Mansfield. Importantly, direct UCONN employment is subtracted from the employment base (for both the Town and County), such that the University is not counted as part of its own potential supply chain. Rather, the

appropriate ratio is between the size of the non-UCONN economy in Mansfield relative to Tolland County.
    - LEHD data shows that in 2011, the latest year available, Mansfield employment net of UCONN was 6,443, which represents 19% of the employment base of Tolland County net of UCONN (33,826).

- *(C):* Proportion of Tolland County resident-workers within Mansfield: LEHD data on the residential location of employees (rather than their employment location, as described above) serves as a proxy for the proportion of induced economic impact accruing within the Town. Induced spending represents secondary spending by employees whose income is supported by direct spending, and the ratio between workers residing in Tolland County and Mansfield (net of UCONN employees, who are accounted for directly in ratio D below) approximates the proportion of County-level direct jobs held by Mansfield residents. This ratio is used to estimate induced impacts from capital investments and student spending, where the exact distribution of employee residency is unknown.
    - LEHD data shows that in 2011, the latest year available, employment among Mansfield residents net of UCONN was 4,508, which represents 7% of resident workers of Tolland County net of UCONN (61,212).

- *(D):* Proportion of Direct UCONN employees living in Mansfield: In the case of direct university employees, whose impact falls under University operations within the economic impact framework developed for this report, the distribution of employee residency is known, resulting in a more accurate estimate of the proportion of indirect dollars that accrue within the Town for the Operations category.
    - Zip code data provided by UCONN's Office of Institutional Research indicates that 20% of UCONN staff/faculty lives within the Town.

The proportions above are applied to the appropriate category of modeled results at the County level to estimate economic impacts for the Town. It is worth noting that this methodology represents a conservative approach to estimating the proportion of Tolland County economic activity associated with UCONN that accrues within Mansfield because it functionally assumes, when direct data is not available, that this economic activity is divided throughout the region in the same proportion as general activity. Proportions determined through this ratio analysis (such as proportions (B) and (C) above) are therefore lower than proportions used when direct data on location is available (such as proportions (D) above), due to the natural tendency for spending to cluster to some degree around its origin point (the University), rather than to spread evenly throughout a regional economy. Further, no adjustments these proportions are made for the backward or forward looking analysis, due to the unavailability of data, which may understate the increases in economic impact within the Town attributable to University growth, to the extent that this growth is accompanied by other growth that increases the overall economic capture potential of the Town.

APPENDIX E – ESTIMATED SPENDING BY UNIVERSITY OF CONNECTICUT STUDENTS IN THE TOWN OF MANSFIELD IN 1995 AND IN 2014

Current UCONN students are estimated to be spending more per student than students two decades ago in three categories. The first is housing. As described in Section 2.5, housing demand has increased significantly with increases in student growth, which is reflected in the increases in property value for student housing complexes well above the rate of inflation. Therefore, it is likely that off-campus rents have increased on a per student basis over the last two decades, relative to inflation. Estimates therefore reflect a higher per student spend for off-campus housing for FY 2014. The next is transportation. Data from UCONN suggests that the out-of-state student population has grown from 22 percent to 32 percent during the two decades. Therefore, transportation spending per student is estimated to have increased. In addition, the increase in out-of-state and international enrollment implies a wealthier student body, since in state students pay a greatly reduced tuition. Other spending is therefore estimated to have increased.

TABLE E.1 – ESTIMATED TOTAL ANNUAL SPENDING PROFILE BY STUDENT TYPE, STORRS CAMPUS STUDENTS, FY 1996 (IN $2014)

	Undergraduate Students				Graduate Students	
FY 1996	On Campus	Off-Campus in Mansfield	Off-Campus non-Mansfield	Commuter	Off Campus in Mansfield	Commuter
# of Students	6,982	1,809	632	632	1,361	383
Total Spend (per student)	$14,727	$14,727	$14,727	$5,400	$14,727	$5,400
Housing	$6,080	$6,080	$6,080	$0	$6,080	$0
Food	$5,252	$5,252	$5,252	$1,800	$5,252	$1,800
Transportation	$1,000	$1,000	$1,000	$1,500	$1,000	$1,500
School Supplies	$850	$850	$850	$850	$850	$850
Other	$1,545	$1,545	$1,545	$1,250	$1,545	$1,250

Source: Econsult Solutions Estimates based on UCONN Financial Aid Office Data

TABLE E.2 – ESTIMATED TOTAL ANNUAL SPENDING PROFILE BY STUDENT TYPE, STORRS CAMPUS STUDENTS, FY 2014 (IN $2014)

	Undergraduate Students				Graduate Students	
FY 2014	On Campus	Off-Campus in Mansfield	Off-Campus non-Mansfield	Commuter	Off Campus in Mansfield	Commuter
# of Students	12,318	3,020	1,055	1,055	2,294	645
Total Spend (per student)	$16,198	$16,198	$16,198	$5,400	$16,198	$5,400
Housing	$7,296	$7,296	$7,296	$0	$7,296	$0
Food	$5,252	$5,252	$5,252	$1,800	$5,252	$1,800
Transportation	$1,100	$1,100	$1,100	$1,500	$1,100	$1,500
School Supplies	$850	$850	$850	$850	$850	$850
Other	$1,700	$1,700	$1,700	$1,250	$1,700	$1,250

Source: Econsult Solutions Estimates based on UCONN Financial Aid Office Data

Student spending patterns for FY 2025 are estimated to remain at FY 2014 levels on an inflation-adjusted basis.

In addition to the spending pattern, capture rates within the Town may have changed over the time period. Mansfield is estimated to be currently capturing a greater share of student spending relative to historic trends in two categories. The creation of a significant retail node adjacent to the campus is likely to have increased the food and other (recreational) student spending that is captured within Mansfield. Estimates therefore reflect a higher capture proportion for Mansfield in those categories in FY 2014 than in FY 1996.

Capture rates for those categories for FY 2025 are estimated to continue to increase by the same annual rate (meaning that they grow by half as much, since the time increment is approximately 10 years, rather than 20). Student enrollment estimates for FY 2025 are omitted from Table E.5 below, because they vary by scenario.

TABLE E.3 – ESTIMATED PROPORTION OF OFF-CAMPUS STUDENT SPENDING CAPTURED WITHIN MANSFIELD BY STUDENT TYPE, FY 1996

	Undergraduate Students				Graduate Students	
FY 1996	On Campus	Off-Campus in Mansfield	Off-Campus non-Mansfield	Commuter	Off Campus in Mansfield	Commuter
# of Students	6,982	1,809	632	632	1,361	383
Housing	0%	100%	0%	0%	100%	0%
Food	0%	30%	5%	5%	30%	5%
Transportation	0%	10%	10%	10%	10%	10%
School Supplies	10%	10%	10%	10%	10%	10%
Other	30%	30%	15%	15%	30%	15%

Source: Econsult Solutions Estimates

TABLE E.4 – ESTIMATED PROPORTION OF OFF-CAMPUS STUDENT SPENDING CAPTURED WITHIN MANSFIELD BY STUDENT TYPE, FY 2014

Source: Econsult Solutions Estimates

	Undergraduate Students				Graduate Students	
FY 2014	On Campus	Off-Campus in Mansfield	Off-Campus non-Mansfield	Commuter	Off Campus in Mansfield	Commuter
# of Students	12,318	3,020	1,055	1,055	2,294	645
Housing	0%	100%	0%	0%	100%	0%
Food	0%	50%	15%	15%	50%	15%
Transportation	0%	10%	10%	10%	10%	10%
School Supplies	10%	10%	10%	10%	10%	10%
Other	50%	50%	25%	25%	50%	25%

TABLE E.5 – ESTIMATED PROPORTION OF OFF-CAMPUS STUDENT SPENDING CAPTURED WITHIN MANSFIELD BY STUDENT TYPE, FY 2025

	Undergraduate Students				Graduate Students	
FY 2025	On Campus	Off-Campus in Mansfield	Off-Campus non-Mansfield	Commuter	Off Campus in Mansfield	Commuter
Housing	0%	100%	0%	0%	100%	0%
Food	0%	60%	20%	20%	60%	20%
Transportation	0%	10%	10%	10%	10%	10%
School Supplies	10%	10%	10%	10%	10%	10%
Other	60%	60%	30%	30%	60%	30%

APPENDIX F – ADDITIONAL DETAIL ON THE RESEARCH APPROACH USED TO EVALUATE PARTNERSHIP OPPORTUNITIES

In addition to the modeling of economic and fiscal impacts provided by this report, the consulting team conducted a high-level assessment of key areas of shared service delivery and relevant partnerships that the Town and UCONN may seek to explore. The consulting team reviewed various plans, reports, program descriptions, and (where available) operational data about existing partnerships; and considered this information against the backdrop of insights obtained from group discussions as well as some individual interviews.

Consistent with the intent of the RFP, the consulting team focused in particular on conditions and opportunities related to Economic and Community Development, Public Safety, Community Services, and Transportation / Infrastructure. Within the scope of this study, this review is designed to provide insights into the general landscape of shared service delivery and the broader context of "town-gown" partnerships. Throughout, we have kept foremost in mind the historical policy framework of UCONN 2000, as well as a particular focus on how NextGenCT investments and growth in the STEM fields that may accompany it impacts future shared service scenarios or potential opportunities for expanded partnerships.

As noted previously, such impacts create a direct nexus with shared service delivery related to basic Infrastructure and all forms of Transportation services. However, they extend past these core areas to affect delivery of Public Safety services, K-12 Education, and a range of Social Services. There are distinct implications for current and prospective off-campus housing, both in terms of supply and location. In particular, the expansion of UCONN's research base at the Storrs Campus that is either implied by NextGenCT or being contemplated by some UCONN officials has direction implications for new business creation and industry partnerships – thereby suggesting opportunities for expanded or new forms of Economic or Community Development partnership. (Even with a range of forecasts for increased student enrollment and faculty lines, the focus on making UCONN more competitive in the STEM fields per se speaks to these opportunities.)

In contrast, the link between NextGenCT's impact and recreational, library, conservation, or public housing needs are less direct. The latter therefore are not addressed here.

Within this context a wide range of partnerships and shared service arrangements already exist, which support Mansfield's and UCONN's efforts to jointly plan for and manage the delivery of selected services. In the future, one can envision additional partnerships or shared service delivery arrangements building on this base. For example, proposed public-private developments at Four Corners and the Depot Campus, student service learning to aid with social services and economic development, partnerships around transit or biking/walking, and a variety of public safety partnerships all provide

examples of opportunities for accomplishing shared goals and shared benefits. While this report was not intended to analyze any of these service areas in detail, it provides a high-level review and potential guidance for the evolution of such collaborations, in parallel with the ongoing roll-out of NexGenCT capital investments and related initiatives.

APPENDIX G – ADDITIONAL DETAIL ON THE CURRENT STATE OF PARTNERSHIPS BETWEEN THE UNIVERSITY OF CONNECTICUT AND THE TOWN OF MANSFIELD

The Town and UCONN have accomplished much in partnership over the last two decades. Beyond the high-profile success story of Storrs Center, the two organizations have addressed a variety of important issues and opportunities to create value and reduce expenses. It is important to understand the variety of teamwork already underway.

Historical Context

Over the last two decades, universities and other anchor institutions throughout the United States have clearly recognized that their futures are inextricably tied to the future of their host communities. Initially, partnerships formed with communities were born from crisis, often related to the safety of students and staff in distressed urban environments. Later, more rural and suburban campuses enhanced their own partnerships as part of their efforts to create walkable places attractive to more urban-oriented students and young faculty.

Most such partnerships had to overcome decades of mistrust, cultures of separation, off-campus student behavior problems, and mutual histories of miscommunications and misunderstandings. With notable positive exceptions, progress has been slowly and steadily improving. Transitions in leadership in either partner organization often either accelerate or temporarily reverse such progress, but the general trend toward stronger partnerships persists.

More recently, public research universities like UCONN have more actively refocused on their roles as regional economic development partners. They have invested in additional research and technology transfer capacity, created or expanded business incubators and accelerators, built or become partners in research and technology parks, enhanced workforce development programs, and expanded efforts to attract, educate, and retain STEM talent. Such is the nature of the NextGenCT Connecticut initiative.

Weaving together these local and regional initiatives requires even more complex partnerships, in part because universities frequently view them as separate and distinct. This often stems (pun intended) from the assignments for each kind of partnership resting in different institutional silos – typically Research and Engagement or Government Relations. In contrast, local community partners almost always see the two kinds of initiatives as intertwined. And given the proven connections between talent retention, regional economic development, and vibrant walkable places, this community viewpoint is more compelling. For this reason, private development investment near university

campuses has been one of the fastest growing real estate sectors over the last decade. Storrs Center is a good example of this trend.

Structures and Cultures

While most of the more tactical ideas for enhanced partnerships described above can be helpful in many ways, their impacts could be greatly enhanced by adjusting structures and cultures in both organizations. Taking such partnerships to this next level as part of NextGenCT will help the two partners substantially. Research has shown the best university-community partnerships are built on a shared vision, shared goals, and power structures that build sustainable trust.

The limited research undertaken for this report did not uncover any specific development of shared strategic goals or a shared vision statement between the partners, nor was there obvious evidence of direct involvement by the UCONN Board and President, the actual decision-making group for such partnerships. Based on the consulting team's work with other partnerships, it does not view this as an intentional strategy, rather a natural evolution that starts with efforts to resolve shared problems more than to capitalize on shared opportunities.

Given the potential benefits of such an "opportunities" strategy, the additional participation in current partnerships by the UCONN President and Board members, a facilitated workshop to identify shared goals and vision (not just points of disagreement), and more formal arrangements around transit, public safety, and public-private efforts for housing and economic development will help improve the needed sustainable trust and add substantial value going forward.

Within this context, the benefits of partnerships have also become clearer and more compelling. For universities, they provide support for the expanded economic development mission, student and faculty attraction, state funding, foundation grants, and even alumni donations under the right circumstances. The best partnerships can also reduce operating costs related to transportation, security, physical plant, utilities, and more. Finally, the proven benefits of enhanced learning and job opportunities from student engagement are very compelling.

For host communities, effective partnerships can provide a growing employment base and opportunities for existing residents, increased tax revenues, new redevelopment opportunities, enhanced cultural and recreational offerings, K-12 educational benefits, expanded opportunities for local businesses, and reduced local government operating costs for a wide range of services including public safety, transit services, social services, and K-12 education. They often provide enhanced quality of these services even if operating costs are not reduced.

It is important to note that while the Town and UCONN currently have a Town/Gown Committee that meets regularly to discuss partnership opportunities and collaborative efforts, formal agreements to work together are between the town and UCONN, with the Town/Gown Committee itself carrying no authority of its own to act, fund, or enter into agreements. It remains a very useful mechanism for partnership but does not supplant the need for formal agreements should such arrangements be preferred.

The Current State of Town/Gown Relations in Mansfield

For the Town of Mansfield and the University of Connecticut, considering these trends in the context of their very unique situation and the NextGenCT initiative, wholesale replication of partnerships from other locations will be quite difficult. At the same time, the successful structures, processes, communications tools, and even financial principles from other partnerships can add mutual value in Storrs and the rest of the Town.

Principal among these opportunities are the potential for enhanced economic development and related tax revenues. Much of the taxable development related to UCONN 2000 and 21st Century has accrued to neighboring communities in the form of residential and commercial development as well as business development. Realigning goals and a shared vision, adding key regional partners, and creating additional enterprise development focus by UCONN programs within the Town will have major benefits for both partners, including improved tax revenues for the Town and the potential for additional State support for UCONN related to economic development strategies.

A second key opportunity involves a challenge common to many town-gown relations, which is keeping students safe at housing locations off campus while simultaneously managing historical nuisance behaviors from large parties and other inappropriate behaviors. This problem has been identified in the past and some steps have been taken to address it, but improved information sharing, more formal mutual aid agreements, enhanced criminal and student code enforcement procedures, and innovative educational strategies can be easily added to existing partnership efforts to greatly enhance results. Over time, this kind of partnership improvement will reduce costs for both Mansfield and UCONN as well.

Another longer-term partnership opportunity involves water and sewer service. By exploring a regional approach for both of these systems, both Mansfield and UCONN can work to shift risk, enhance overall capacity, and influence economic development beyond their borders. Properly structured, this approach helps spread both capital and operating costs over a larger number of contributors, reducing the costs to both UCONN and the Town. While such an approach will take some time, the long-term savings can be substantial.

Finally, by regularly meeting to clarify and affirm their shared vision and goals for the place they share and call home, leaders from UCONN and the Town can create an

expanded culture of cooperation that will result in organic partnerships that create significant value among students, faculty, staff, residents, local businesses, Town departments, and community organizations. In the best university-community partnerships, such mutually beneficial relationships are so numerous they actually become difficult to track and quantify. When that time comes, it will be a great problem for Mansfield and UCONN to share.

Transportation and Infrastructure

As noted in previous sections, responsibility for the creation and operation of roadways, water lines, sewer lines, transit service, and separated bike lanes and sidewalks/pedestrian paths is divided among the Town, UCONN, the State, and even private utilities. However, efficient systems must work together and this essentially requires some kinds of partnerships. A variety of them are already in place:

- *Roadways/Transit/Bikes/Peds* - UCONN and Mansfield have worked cooperatively to create new roadways and bike paths, including making joint requests for funding from state and federal agencies. Discussions are also ongoing about ways to create a more robust multi-modal Transportation Demand Management system. They have mutually created car rental options, additional bike and pedestrian pathways, a transportation center in Storrs Center, and specialized transit service. They have informal agreements in place to help subsidize the transit service, and the transit center, parking, and car rental facilities are part of the formal agreements for Storrs Center. Ridership information about the portion of transit users not related to UCONN indicate such ridership is minimal, so it is expected that enrollment growth from NextGenCT will create some additional demand.

  At this time, roadway maintenance and snow clearing on roadways is performed by the state, Town, and UCONN depending on who "owns" the roadways. For the sidewalks and bike paths, UCONN maintains and clears those on campus, and Mansfield maintains and clears those off campus. Again, given the enrollment growth from NextGenCT and the Town's desire to shift more trips to active transportation, it is anticipated that additional sidewalks and bike paths will be constructed and maintained. No information about the non-UCONN portion of off-campus bike/ped path users was available.

- *Water/Sewer* - Partnerships for water and sewer service have been in place between UCONN and the Town for some time. This includes arrangements to extend service to the Four Corners area to permit and encourage additional private development. Given the growth in demands both on campus and in other parts of the Town, and given Mansfield's expected additional development in Four Corners and elsewhere, the partners are currently discussing adjustments to those partnerships, including the possibility of the Town taking on some responsibilities for parts of the current systems. There have not been significant recent

discussions about any kind of regional water and sewer system that might involve additional partners and systems.

Public Safety

Given the descriptions shared by UCONN and Mansfield of departments at or exceeding capacity for public safety services, the presence of a variety of existing partnership arrangements for both police and fire is already creating mutual benefits:

- *Police* - Mutual assistance agreements between police agencies, although primarily informal, have been helping manage issues related to off-campus student misbehavior, event traffic, and illegal parking. UCONN police have full authority in Mansfield and regularly assist during fall and spring "party" seasons. Like many universities, UCONN has also communicated to students that rules of conduct apply both on and off campus, and both Mansfield troopers and UCONN police make regular referrals to the Office of Community Standards. Growth in enrollment and staffing resulting from NextGenCT is likely to create at least some additional calls for service, so these partnerships will need to respond with creative and mutually beneficial solutions.

  In addition to formal police enforcement efforts, UCONN has undertaken a number of educational efforts to help manage student misbehavior off-campus. This includes student interns, police, and other Student Affairs staff. Such efforts are regularly discussed as part of the Town/Gown Committee meetings.

  The Town also recently completed an analysis of options for Police services, including a variety of potential partnership structures involving UCONN. A Captain from the police department served on the study committee, and the analysis identified a number of partnership options that are still under consideration in one form or another.

- *Fire* - There are full mutual aid agreements in place, with the majority of calls being for emergency medical services, not fire. Statistics specific to calls for off-campus UCONN students were more readily available. As more campus and private housing is built as a result of NextGenCT growth, there will also be increased calls for service.

  With such services already stretched for both UCONN and the Town, discussions among staff at both organizations are ongoing regarding the potential for broader partnerships as a way to manage the anticipated increased demands for service and rising costs. Limited data is readily available to the partners to evaluate needs and options related to NextGenCT, however.

Social Services and K-12 Education

Depending on the level of growth in enrollment from NextGenCT and related population growth off-campus, there may be additional demands for social services and K-12 educational opportunities from the Town and its school district. A variety of dispersed partnerships were identified related to both social services and K-12 education in Mansfield. However, these were less formal arrangements among Town departments, Mansfield public schools, community non-profits, UCONN academic units, specific UCONN faculty, and even UCONN student-led organizations. Many include both learning opportunities for UCONN students and research opportunities for UCONN faculty while simultaneously providing needed services to Town residents at little or no cost.

Economic Development

Mansfield Economic Development Commission is appointed by the Town Manager, and serves as an advisory body and group of technical experts to help guide the Town's efforts related to Economic Development. Along with Mansfield Staff, the Commission crafted a very strong Economic Development section of the Mansfield Tomorrow Plan, and members have taken some action as volunteers to enhance business retention and development. While some current members of the group have an affiliation with UCONN, none is required and no senior UCONN staff or Board Members participate as a member of the group at this time. At the same time, the group does consider presentations from UCONN staff from time to time, but there appear to be no formal requirements or agreements for such reviews.

Downtown Revitalization

Mansfield Downtown Partnership (MDP) was the most significant formal partnership we identified. MDP's bylaws clearly state a mission to enhance private development projects in partnership with both the Town and UCONN. In particular, the group's bylaws indicate a focus on such work for Storrs Center, Four Corners, and the Kings Hill Road area. Board membership is clearly structured to include a balance of UCONN, Mansfield, and other business interests. The Storrs Center project is achieving great success, creating substantial tax revenue benefits for the town, additional near-campus housing that is professionally managed, and a vibrant mixed-use Town Center environment for students, staff, and Town residents. Occupancy rates appear strong. The financial stability of the non-profit group is less certain. There is an informal agreement for both UCONN and the Town to provide $125,000 per year for operating expenses, and there are membership dues that provide another $20,000 or so, but there is no Business Improvement District or other assessment mechanism in place to ensure sustainable funding.

Planning

Ohio State University in Columbus, Georgia State University in Atlanta, and Drexel University in Philadelphia represent three positive examples of effective town/gown campus and community planning participants. Similarly, UCONN has numerous planning and community relations efforts underway that strengthen the town/gown tie and provide a platform from which to explore more and better collaboration upon implementation of NextGenCT:

- *Town and University Relations (Town/Gown) Committee* – This group serves as a crucial convening entity to help identify concerns, share progress and new ideas, and identify opportunities to attract outside resources. It has helped to keep lines of communication open, build and maintain good levels of trust, serve as a forum for a variety of voices to be heard (staff, students, residents), and serve as a sounding board for new partnership ideas, including those related to community and economic development. Members include the Mayor, senior staff, Mansfield residents, and Student Government Association representatives, but the group does not have any decision-making authority or implementation capacity. The group does not regularly make recommendations to either governing body.

- *Coordinated Planning Efforts* – The UCONN Campus Master Plan and Mansfield Tomorrow Plans are currently being developed in parallel; arguably, these plans represent a robust mechanism for helping to align Vision and Goals between the University and the Town of Mansfield across a broad array of issues. Beyond being documents that capture the detailed plans and strategic intent of each institution, they carry special importance because once adopted they impact long-term policy and implementation. There have been substantial communications about both plans at the staff level and in addition, several Town Committees or Commissions and the Town Council undertook formal review of the Draft Campus Master Plan and provided written comments and recommendations. A review by UCONN of the Mansfield Tomorrow Plan is currently underway.

- *Depot Campus working group* – Given the opportunities for private commercial and residential development at the Depot Campus, informal initial discussions are being held between the Town and UCONN about ways to partner, including the potential creation of a redevelopment entity.

- *UCONN student and faculty engagement* – While the consulting team did not conduct an in depth study of existing community engagement efforts in Mansfield, a variety of programs came to light. Several of these were free analyses conducted by students or full classes covering topics including real estate demand, business development ecosystems, and land use patterns around the Town. As NextGenCT impacts the number of STEM students and faculty, there is an opportunity to expand such partnerships.

- *Town Strategic Planning* – This regular exercise by the Town to help set priorities and agree on key strategies that lead to important budget decisions has provided a good opportunity to discuss shared goals and strategies between UCONN and the Town. Regular participation by UCONN staff and other officials in this process is a very positive act of partnership.

APPENDIX H – ADDITIONAL DETAIL ON RECOMMENDED PARTNERSHIPS BETWEEN THE UNIVERSITY OF CONNECTICUT AND THE TOWN OF MANSFIELD THAT CAN RESULT FROM THE IMPLEMENTATION OF NEXTGENCT

Transportation and Infrastructure

As noted previously, transportation and infrastructure improvements and operations are complex and readily cross campus boundary lines. The partnerships in place have helped considerably to manage past challenges of growth, but there is some consensus that expanded partnerships are needed to manage new growth from NextGenCT and to consider unaddressed service challenges from past growth. A variety of joint improvements can help accomplish those goals:

- Manage and share more data about transit ridership and off-campus bicycle /pedestrian path use by UCONN and Town residents to help with needs assessments, route adjustments, and partnership structures and roles. Consider new shared services agreement for the maintenance of bicycle/pedestrian pathways and transit routes based on the percentage of use by UCONN-related users.

- Discuss parking policies and requirements as part of the Transportation Demand Management (TDM) system – including town minimum parking requirements for new housing and mixed-use projects, parking maximums, shuttle requirements, and student parking policies on campus. Eventually, consider combining these mobility initiatives into a joint Transportation Management Authority (TMA). A TMA is a non-profit organization that provides transportation services in a particular area, generally under public-private partnerships. The goal of a TMA is often to increase use of transit and a package of strategies to reduce the demand for single-occupancy car travel.

- Explore regional water and sewer partnerships that can benefit both UCONN and Mansfield by creating additional capacity and backup capacity for services. This might build on the Water System Advisory Group, formalizing its operations and morphing it into a Water Pollution Control Authority. This regional approach has been used by other high-performing regional economic development partnerships with universities as partners like North Carolina's Research Triangle.

Public Safety

Substantial mutual benefits have been derived from past partnerships based on the goodwill and professionalism of the partners. At the same time, given even a small increase in demand for services from NextGenCT, currently stressed units may require a variety of adjustments to create even greater benefits related to cost savings, student safety, community safety, and community quality of life that impacts UCONN staff as well as other Mansfield residents. These adjustments might include:

- Better tracking and sharing information about student-generated police calls for service off campus. The partners can also use GIS analytics to better identify and manage particular problem areas more efficiently. Finally, these improved data sets can be used to evaluate existing partnerships and their effectiveness, providing the basis for cost savings and other improvements.

- Better tracking and information sharing about UCONN community standards proceedings. This will allow the partners to more effectively utilize this process to minimize unacceptable behaviors and student safety risks off-campus. UCONN may also want to consider a more formal role for Mansfield representatives in the process to help with communications and tracking.

- Formalized arrangements for mutual aid, particularly for "party" seasons and event traffic management. Such agreements create more clarity for operations, build trust by recognizing shared goals, and help manage costs and budgeting by both partners.

All these activities are very common for urban campuses that often face more serious student safety and quality of life issues, and the benefits can be substantial for partnerships in small communities as well.

Social Services and K-12 Education

Many of the informal partnerships supporting social services and K-12 education fall under the umbrella of Community Engagement. Going forward as part of ways to enhance the quality of such services in support of NextGenCT talent development and prosperity goals, a greater number of engagement efforts could be more focused on Mansfield.

With few references to Mansfield in the Carnegie application, and no Provost award winners for engagement in the Town, there is clearly room for additional emphasis. This new emphasis would provide students and faculty with willing and conveniently located partners, can significantly enhance levels of trust in the community, and is a proven way

to enhance student learning. For some faculty, it also provides new research opportunities. Finally, engagement partnerships can greatly enhance opportunities for external funding from philanthropic and government sources that benefits both UCONN and the Town.

Economic Development

Of the various service delivery areas that lend themselves to town/gown partnership structures, economic development in its pure form stands apart for many reasons.

For purposes of this study, the consulting team definition of economic development focuses on *policies, investments or activities* that strengthen the economic base of a specific location, in this case the Town of Mansfield. We exclude "retail" as a form of economic development here, as it does not expand the community's economic base but represents more of a service and amenity for residents.

Unlike hard infrastructure, like roads or bike paths, economic development doesn't operate along a continuum or with hard boundaries (e.g. "You repave the road up to there, we will re pave it from here."). Similarly public safety is subject to geographic limits and performance protocols. Or, consider how water services have historically operated in the Mansfield community: UCONN provides, Mansfield buys its share at a defined price.

In contrast, as economic development plays out in the current UCONN-Mansfield context, the fundamental reality can be seen as "UCONN invests [in research, technology and talent] and Mansfield harvests [taxes]." This is a gross over-simplification and certainly does not represent a value judgment: this is the fundamental nature of *knowledge-based* economic development everywhere.

However, it nonetheless reflects the underlying dynamics at work. While there may be a level of services that the Town can or would provide to support some types of economic development -- for example, marketing of the community's assets through a website, print materials, or collaboration with larger regional ED initiatives such as the Metro Hartford Alliance -- the "investment" involved here in terms of dollars is minuscule, in relationship to the various forms of investment made by UCONN in facilities, equipment, faculty and the process of technology commercialization.

For purposes of this study the cost-benefit equation is complicated by the fact that a majority of the economic development *benefits* of UCONN's research commercialization and of its current or future industry partnerships accrue to a larger geography – literally the entire state of Connecticut. UCONN has significant technology assets – and through NextGenCT is creating new ones -- that positively affect the competitive advantage of not just Mansfield, but the state as a whole. This situation was summed up as follows by one University official who was interviewed:

"Quite honestly the goal of NextGenCT is to grow research, and to promote workforce development . . . but the benefits are to be state-wide oriented."

As a result, the consulting team concluded that in the case of Mansfield and UCONN, economic development partnerships are currently among the least advanced in their form or implementation; however they are also the area that offers perhaps the greatest potential for "win-win" solutions.

Highlights of the consulting team's stakeholder interviews and environmental scan include the following issues and opportunities for further consideration:

- Various UCONN officials and publications cite ambitious goals for expansion of research expenditures, whether directly tied to NextGenCT or initiatives. While not all of this is ascribed to the Storrs Campus, nonetheless the investments in upgrading and building new major research facilities on the Storrs Campus should enable it to meet its goals for increased "research productivity."

- Along with factors such as additional grad students, post-docs and technicians, and growth in faculty and staff, these investments set the stage for increased economic development both in Mansfield, as well as across the state.

- UCONN has an effective incubator program with a track record of success, supported by strong Tech Transfer capabilities able to turn inventions or ideas by University faculty, staff or students into businesses. One of UCONN's three incubators is located in Mansfield. Tech Transfer officials point to a number of initiatives, some only recently announced or launched, designed to strengthen the entrepreneurial ecosystem of UCONN. These are predicted to lead to significant increases in the number of student and faculty start-ups in the coming years. (A ten-fold increase was suggested as the order of magnitude.) Current start-ups are rapidly outgrowing the existing space available at campus properties.

- The experience of recent years shows that Mansfield has been unable to capture any significant share of start-ups coming out of UCONN, due to lack of specialized site or multi-tenant facilities, or zoning that would support life science labs or light manufacturing. To date, the most viable options for start-ups has been at the Depot Campus, which has various limitations and constraints.

- In contrast, neighboring towns of Tolland, Willamantic, and Vernon have created an environment where UCONN start-up companies and companies attracted to be near UCONN could locate. They appear much more friendly and interested in economic development, and more able to physically accommodate it.

- University and Town officials expressed in similar ways a perception and concern that Mansfield currently is unable to accommodate much in the way of additional growth of technology businesses, including UCONN spin-offs.

- The Mansfield Tomorrow plan, prepared with input from the Economic Development Commission as well as representatives from UCONN, provides a very comprehensive and forward-looking strategy to maximize the community's economic development opportunities and to build on potential synergies with UCONN research assets -- including those being further strengthened by NextGenCT. Its recommendations include an extensive list of specific goals and actions that would enable the town to capture more business growth, to benefit from additional tax revenues, and to attract and retain talent.

- Among its elements, Mansfield Tomorrow identifies a goal of concentrating new development in selected areas, notably the Four Corners area, and balancing growth with preservation of the town's traditional character. A focus on capturing University spin-offs is specifically cited as a goal. It specifically addresses the need for zoning and regulations that are more business-friendly to technology companies.

- In parallel, the University is in the process of gearing up development of the UCONN Technology Park, with a goal of creating some 900,000 square feet of space to accommodate new industry partnerships on the campus over the next 10 – 20 years. Plans for an initial Innovation Partnership Building are underway; however the facility is being planned more around the requirements of large scale companies, rather than for start-ups, leaving a possible pipeline of demand with needs that could be met elsewhere in Mansfield, if not in the nearby region.

- The Town does not have a dedicated Economic Development agency or personnel. The Director of Planning & Development deals with it on a case-by-case basis, with support from other Town departments as needed.

- UCONN is a member of the Metro Hartford Alliance, the regional entity charge with business recruitment. The Town has considered contracting directly with the Alliance for economic development services (marketing and business recruitment); however this may not be a viable approach given the Alliance business model, which must treat all communities within its region on an equal footing. Mansfield Tomorrow also recommends exploring partnerships between the Town and other neighboring towns, to meet economic development needs.

- Both UCONN and Town officials, as well as a representative of the Metro Hartford Alliance, express nearly identical perceptions that the University's internal strategy for economic development -- whether based on its current or its projected growth -- is not well-defined or clearly articulated. The past three years have seen changes

in organizational structure related to Economic Development, making it more difficult for outside organizations to meaningfully engage with the University on matters of strategy for economic development. Economic Development responsibilities now are divided between Office of the Provost and Office of the Vice President for Research.

- Similarly, University officials indicate that joint planning conversations with the City on a mutual agenda for economic development have been sporadic. At the same time, the lack of mechanisms to collaborate on economic development was identified as a gap.

In short, despite the presence of significant scientific and research and development assets at UCONN – a technology base that continues to be strengthened by NextGenCT and initiatives such as development of the Technology Park – the Town of Mansfield historically has not realized the full potential of positive economic development impact and benefits that might have been possible.

Today, with a healthy recognition of this gap on both sides, new forms of university-town collaboration can be envisioned that would result in a *repositioning* of Mansfield as a "location of choice" for selected types of start-ups and other, appropriately scaled technology enterprises. Over time, these would meet the objective of strengthening the Town's tax base and diversifying its economy, helping to continue providing amenities and services that define its quality of life.

Mansfield Tomorrow provides a comprehensive roadmap to specific, incremental steps that can be taken to achieve this outcome. Using this well-defined framework, The Town now is in a position to drive forward key initiatives that would open up new opportunities for economic development -- changing the equation for locational decisions by companies, whether start-ups spun out of UCONN or established companies considering a location near to UCONN's technology assets and talent base.

In particular, the Town should consider how it could initiate development of some type of incubator facility, perhaps including co-working space for a range of entrepreneurs, as well as programming, such as business accelerators or an entrepreneurial boot camp. Programs along these lines can begin on a modest scale, can utilize existing space, and depending on the range of technologies and clients, may not require rezoning.

Many start-ups, even those in the life sciences, do not require laboratories and function well in office environments during the business planning stage. One can easily envision such an incubator and co-working space located at the Storrs Center complex, as a project that could become operational in the near term.

Other types of facilities may need to be developed within the Town of Mansfield that are able to accommodate incubator graduates and larger technology enterprises, some of

which may require a different type of zoning. In addition to addressing the zoning constraints that have prevented companies from locating within Mansfield in the past, the Town can pro-actively seek to attract private developers who can build and operate market competitive facilities. Planning for this should take into account the Technology Park site as a possible location and as a possible partnership opportunity; however the Town may identify and explore the potential to foster such developments at other sites that are appropriate.

In considering initiatives along these lines, the Downtown Partnership and its success at bringing Storrs Center on line provides an outstanding model on which to build. Whether the Partnership entity would itself undertake such projects, or whether its business model should be adapted to undertake a more specifically economic development agenda (versus housing and retail development), its strength comes in part from the structure of the partnership and its ability to attract outside financing, as well as its "place-making" ability.

Mechanisms for the Town to initiate projects on University-owned land such as the Depot Campus or the Tech Park certainly pose additional complexities, including questions of tax revenue. At the same time, the municipality may be able to bring financial resources or legal mechanism to bear on such sites that can be mutually beneficial, e.g. in the case of any residual brownfield issues.