

Creating Impact

The Hanover Insurance Group

*Making a Difference in Worcester
and Massachusetts*

September 2022



The Hanover Insurance Group, Inc.
*Making a Difference in Worcester
and Massachusetts*

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The institute’s Economic & Public Policy Research (EPPR) group is a leading provider of applied research, helping clients make more informed decisions about strategic economic and public policy issues.

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Executive Summary

The University of Massachusetts Donahue Institute has completed a thorough analysis of the economic impact of The Hanover Insurance Group, Inc. on the City of Worcester, where the company is headquartered, and on the Commonwealth of Massachusetts.

The Hanover traces its roots in Worcester to the mid-1800s. Today, The Hanover is a leading employer in both Central Massachusetts and in the state, as well as an active member of the business community and a responsible corporate citizen, making a difference through its business and its community involvement.

The Donahue Institute's research spanned the decade from 2010 to 2020, and documents the crucial role the company plays in Worcester and Central Massachusetts. The report also documents the company's economic contributions to all counties within the state.

Through its research, The Donahue Institute found The Hanover:

- Employed an average of 1,837 people each year in Central Massachusetts
- Supported an average of 6,187 jobs each year across the Commonwealth
- Contributed \$354 million to personal income in Central Massachusetts and \$606 million in Massachusetts on average each year during the analysis period
- Played a critical role in the revitalization of Worcester's economy, in particular through the development of 13 acres of land in downtown Worcester and the formation of The Hanover Theatre and Conservatory
- Made more than \$16 million in charitable contributions during the analysis period

Introduction

Since its founding in 1852, The Hanover has delivered on its promises to agents, customers and other key stakeholders, persevering through natural disasters, world wars, economic turmoil and global pandemics, adapting to rapidly changing market conditions, customer preferences and expectations, and turning challenges into opportunities.

Today, The Hanover is a leading property and casualty insurance company, a responsible steward of the environment, an active and involved corporate citizen, and an important contributor to the economies of Worcester and Massachusetts.

The company offers broad and innovative insurance protection for small and mid-sized businesses, as well as for homes, automobiles, and other personal items, through a select group of many of the best independent agents and brokers in the country.

While The Hanover's strong financial condition and unique business strategy are differentiators, its greatest assets are its talented and committed employees and its unique, collaborative culture. The company is committed to being an employer of choice, and has been recognized by Forbes as one of America's Best Midsize Employers, by Newsweek as one of America's Most Responsible Companies, and by the Human Rights Campaign as a Best Place to Work for LGBTQ Equality.

The Hanover wrote approximately \$5 billion of premiums in 2021, up 8.6% from the previous year. Net income for 2021 was nearly \$419 million, up \$60 million from 2020.

Much of the management and administration of the business is done from the company's headquarters in Worcester, where it is a leading employer and one of the largest public companies in Massachusetts. Despite Massachusetts only accounting for about 9% of The Hanover's total business, approximately 40% of its 4,400 employees are in the Commonwealth. Nearly all the

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For 170 years, we've embraced change and challenge with strategic vision, financial strength and agility, but most importantly, with a skilled and committed team. Our company has been a consistent source of strength for generations, as we have evolved to become a leading property and casualty organization, delivering value for all who depend on us. We are more excited than ever about our future and we are committed to making a lasting and positive difference, through our business and in our local communities, for many years to come.”

John C. Roche
President and Chief Executive Officer, The Hanover

company's in-state workers align to the Lincoln Street location in Worcester, where the company maintains a 52-acre headquarters campus, with more than 800,000 square feet of office space across four buildings, near the intersection of I-290 and I-190. With employees' safety and the environment in mind, all of these buildings are WELL Health-Safety Rating certified and 100% of the electricity used on campus is offset through the purchase of wind credits. In addition to its workers and their wages, The Hanover contributes to the Commonwealth's economy through contractors, vendors, commissions to brokers, payments to policyholders, taxes, charitable giving, and community involvement, all of which will be further described in this report.

The Hanover commissioned this report from the UMass Donahue Institute's Economic and Public Policy Research group with the aim of describing its crucial contributions to Worcester and Massachusetts. In the sections that follow, the report's chapters focus on economic contributions, charitable giving, and community impacts.

The Hanover At a Glance

170

years of history in Worcester

1,837

average jobs annually in Central Massachusetts*

\$5B

2021 net premiums

\$749M

average annual value added in Massachusetts*

\$1.25B

average annual economic output in Massachusetts*

\$16.5M

total charitable contributions in Central Massachusetts*

6,189 average jobs supported in Massachusetts annually*

\$2.5M contributions to United Way of Central Massachusetts*

100

percent of electricity used on Worcester campus is offset through wind credits

\$606M

average personal income generated in Massachusetts annually*

\$84M

average Massachusetts and local taxes generated annually*

\$4M

charitable contributions to education and STEM in Central Massachusetts*

13

acres of economic development at CitySquare Worcester

\$2.9M

contributions to arts, culture and entertainment in Worcester*

* during 2010 – 2020 analysis period

Making a Difference in Worcester and Massachusetts

Economic Concepts Glossary

To fully appreciate the economic impacts, it is helpful to understand the terms that describe the results discussed in this report.

Employment: Employment is a count of jobs, not people, by place of work. It counts all jobs with the same weight regardless of whether the position is full-time or part-time or the labor of a self-employed proprietor. Additionally, jobs are counted as job-years, which are equivalent to one job lasting for one year. This is a similar concept to “person-hours.” Jobs often carry over from year to year, so therefore the jobs in one year include many of the same jobs as in the previous year. For example, if a new business opens with 10 employees, then the host community of that business will have 10 more jobs than it would have had in every future year that the company maintains its workforce. Over five years, the business will have created 50 job-years (10 jobs at the company x five years = 50 job-years), though it is possible that it is not the same 10 people who are working there over time. When reviewing changes in employment across multiple years, knowledge of the concept of job-years is vital to proper interpretation. As shown in the example above, 50 job-years is not equivalent to 50 people with jobs or even 50 job slots.

Output: Output is the total economic value of production, sales, or business revenues, whether final (i.e., purchased by the end user) or intermediate (i.e., used by another business to produce its own output). It includes the value of inputs to production, wages paid to employees, capital expenses, taxes, and profit. It is useful as an indicator of business activity, but it should not be construed as net new economic activity.

Personal Income: Personal income is income and benefits from all sources (e.g., wages and salaries, government transfers, property income, etc.) earned by all persons living in an area. It excludes the income earned by non-resident workers who commute into an area, but it includes the income of residents who commute out.

Value Added: Value added is the value of all final goods and services, sometimes called net economic impact, created in an economy. It represents new economic activity and is also known as gross product or net economic impact. It differs from output by the value of inputs to production. Value added provides a useful summary of the economy, which is why all nations and U.S. states report their economic growth in this way, calling it either gross domestic product or gross state product as appropriate. Its usefulness derives from the elimination of the double-counting inherent in output, which stems from the inclusion of inputs. An example of the double-counting of inputs can be found and simplified in the process of making and selling a loaf of bread. A farmer sells wheat to a mill, which then sells flour to a baker, who then sells bread to the final customer. The sale price of the bread includes the cost of all necessary inputs, including growing the wheat, milling the flour, and baking the bread. Value added counts only the sale price of the bread to the final consumer, which is the net new value created in the economy. On the other hand, output counts the revenues earned by every business in the supply chain, which means that the value of the wheat and flour are counted more than once.

Summary Impacts

The PI+ economic model used for the study takes the direct effects of The Hanover’s operations and uses its understanding of the Massachusetts economy to calculate indirect and induced effects. The direct effects are the cumulative effects described in the methodology of the economic impact section and include employment, revenues, and compensation. The structure of PI+ includes a description of supply chain relationships between all the sectors of the economy and the import and export relationship between the six regions of the model and the rest of the nation and world. Combined, these elements of the model estimate the indirect changes. Additionally, PI+ includes the employment and wage characteristics of each sector and the average consumption patterns of Massachusetts residents. These elements yield the induced changes. Therefore, the modeling process begins with the modeler entering the direct changes into the economic impact model, continues through the model’s

calculation of the indirect and induced effects, and ends with the analysis of the results by the modeler. The results of this process are described in this section of the report.

Our modeling results show that the activities of The Hanover create positive total economic impacts.

- The total direct, indirect, and induced effects of the company’s operations create or support an **average of nearly 6,200 jobs, whose cumulative earnings approach \$6.7 billion over the analysis period studied.**
- In Central Massachusetts, The Hanover accounts for **an average of roughly 4,600 jobs and \$3.9 billion of cumulative income.**
- The company’s economic impacts to the Commonwealth of Massachusetts **average \$749 million per year with cumulative additions of \$8.2 billion** over the analysis period.

Table 1: The Hanover’s Economic Contributions - Summary (2010-2020)

ECONOMIC ACTIVITY SUMMARY	EMPLOYMENT		BUSINESS REVENUES (OUTPUT) (\$ IN MILLIONS)		NET ECONOMIC IMPACT (VALUE ADDED) (\$ IN MILLIONS)		PERSONAL INCOME (\$ IN MILLIONS)		STATE AND LOCAL TAXES (\$ IN MILLIONS)	
	AVERAGE	CUM.	AVERAGE	CUM.	AVERAGE	CUM.	AVERAGE	CUM.	AVERAGE	CUM.
Metro Boston	1,188	13,064	\$230	\$2,533	\$145	\$1,598	\$193	\$2,127	\$27	\$294
Southeast	207	2,281	\$27	\$298	\$16	\$181	\$29	\$318	\$4	\$44
Pioneer Valley	153	1,682	\$19	\$210	\$12	\$129	\$22	\$246	\$3	\$34
Central MA	4,581	50,389	\$967	\$10,636	\$571	\$6,281	\$354	\$3,899	\$49	\$538
Berkshires	9	103	\$1	\$16	\$1	\$9	\$1	\$10	\$0.1	\$1
Cape and Islands	49	536	\$6	\$62	\$3	\$38	\$6	\$64	\$1	\$9
MA Total	6,187	68,055	\$1,250	\$13,755	\$749	\$8,237	\$606	\$6,664	\$84	\$920

Source: The Hanover Insurance Group, UMDI, REMI

While the modeling team strove to include as much of the operating impacts as possible, the complexity of some rendered them beyond the time available for this project. One group of impacts are The Hanover’s investments in training and workforce development via internships, professional development programs, sponsorship of actuaries, and local hiring initiatives. Related to this is the impact that The Hanover has on the larger labor market. The presence of a prominent and successful company

creates an environment of increased confidence for other businesses while the draw of The Hanover brings with it spouses and partners who seek work in the area. Finally, the third group of impacts are related to the role the company plays in the insurance industry, namely the revenues for agents (and thus the local initiatives they enact), consumption and savings for insured households, and the sustainability of the Commonwealth’s insurance market due to the reduced concentration and increased capacity enabled by the presence of The Hanover.

Detailed Impacts

The summary impacts provide a snapshot of the results of our analysis of the economic contributions from the operations of The Hanover. The following results expand on those previously mentioned to highlight changes over the analysis period and to explain in detail the relationship between the results.

Revenues drive purchases from vendors and suppliers and so tie one business to many others. Furthermore, as described in the methodology, revenues and employment are connected by productivity such that they are essentially two sides of the same coin. Therefore, revenues also drive compensation. Ultimately, it is the opportunity to capture revenues that creates the motivation behind business decisions to hire and invest. Since they determine labor demand, purchases, investment, and profits, revenues are also the determinant of new taxes to the Commonwealth, which it uses to hire workers, fund programs, and increase public investment.

While The Hanover is headquartered in Worcester, Massachusetts, it is a major corporation with clients, offices and an economic footprint across the country. A great deal of the company's revenue is therefore the

result of work performed outside of Massachusetts, and the company spends significant sums of money on supporting its operations outside of the Commonwealth.

Because the work of the headquarters office supports business operations both inside and outside of Massachusetts, it is difficult to calculate Massachusetts' precise share of The Hanover's revenues. **With that said, we estimate that the revenues from in-state sources amounted to \$6.1 billion from 2010 to 2020 and supported nearly \$13.8 billion of business revenues (total output) in Massachusetts during that time, including nearly \$1.3 billion in 2020.** This output includes economic activity at The Hanover itself, as well as at other firms and organizations whose activities were supported by its operations. **Overall, The Hanover creates or supports an additional \$1.24 of revenues in other business around Massachusetts for every \$1 of its in-state revenue. Within its home region, the company's multiplier is an additional \$0.74 of revenues per dollar.**

Table 2: The Hanover's Contributions to Output (2010-2020)
(\$ in millions)

OUTPUT	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	AVG.	CUM.
Metro Boston	\$209	\$236	\$259	\$274	\$258	\$245	\$241	\$222	\$201	\$193	\$195	\$230	\$2,533
Southeast	\$24	\$27	\$31	\$34	\$31	\$29	\$28	\$26	\$23	\$21	\$23	\$27	\$298
Pioneer Valley	\$17	\$18	\$20	\$21	\$20	\$19	\$20	\$19	\$18	\$18	\$19	\$19	\$210
Central MA	\$932	\$877	\$969	\$1,011	\$952	\$910	\$962	\$1,007	\$986	\$1,009	\$1,020	\$967	\$10,636
Berkshires	\$1	\$1	\$2	\$2	\$2	\$2	\$2	\$1	\$1	\$1	\$1	\$1	\$16
Cape and Islands	\$5	\$6	\$7	\$7	\$7	\$6	\$6	\$5	\$4	\$4	\$4	\$6	\$62
MA Total	\$1,188	\$1,166	\$1,287	\$1,349	\$1,269	\$1,212	\$1,259	\$1,280	\$1,234	\$1,247	\$1,263	\$1,250	\$13,755

Source: The Hanover Insurance Group, UMDI, REMI

The economic activity generated by The Hanover and its ripple effects create taxable transactions for Massachusetts.

- Total revenues going to state and local governments are shown in Table 3. New revenues average \$84 million per year for a cumulative total of \$920 million.

- Of this total, three-fifths stems from the activity in Central Massachusetts.
- The Hanover itself pays an average of \$19.6 million of taxes and fees to the state a year (or \$215.5 million total over the analysis period), of which just over half are payroll taxes.

Table 3: The Hanover's Contributions to State and Local Taxes (2010-2020)
(\$ in millions)

STATE AND LOCAL TAXES	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	AVG.	CUM.
Metro Boston	\$19	\$24	\$27	\$30	\$30	\$30	\$30	\$28	\$26	\$25	\$25	\$27	\$294
Southeast	\$2.9	\$3.7	\$4.2	\$4.7	\$4.6	\$4.6	\$4.5	\$4.1	\$3.7	\$3.4	\$3.4	\$4	\$44
Pioneer Valley	\$2.2	\$2.5	\$2.8	\$3.2	\$3.2	\$3.3	\$3.5	\$3.4	\$3.3	\$3.3	\$3.4	\$3	\$34
Central MA	\$35	\$36	\$40	\$46	\$48	\$52	\$56	\$55	\$55	\$57	\$60	\$49	\$538
Berkshires	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.2	\$0.1	\$0.1	\$0.1	\$0.1	\$0	\$1
Cape and Islands	\$0.5	\$0.7	\$0.8	\$0.9	\$0.9	\$0.9	\$0.9	\$0.8	\$0.8	\$0.7	\$0.7	\$1	\$9
MA Total	\$60	\$67	\$75	\$85	\$86	\$91	\$95	\$91	\$89	\$89	\$92	\$84	\$920

Source: The Hanover Insurance Group, UMDI, REMI, FTA

Gross regional product in Central Massachusetts averages

\$571 MILLION PER YEAR*

Net economic activity or value added (also called gross state product) is a subcomponent of output. Value added excludes the value of the goods and services used up in production and thus shows only the new value created in an economy. Given that it is a subset of output, value added follows the same yearly pattern as output. Cumulative net new economic activity is 60% of output, which is the value that remains after accounting for inputs

* during 2010 – 2020 analysis period

to production, taxes, and economic leakages due to out-of-state trade and commuting.

- The total contribution to the Massachusetts economy from The Hanover averages \$749 million per year and totals \$8.2 billion over the study period.
- Gross regional product in Central Massachusetts averages \$571 million per year and \$6.3 billion over the analysis period.

The total contribution to the Massachusetts economy averages

\$749 MILLION PER YEAR*

Table 4: The Hanover's Contributions to Value Added (2010-2020)

(\$ in millions)

VALUE-ADDED	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	AVG.	CUM.
Metro Boston	\$131	\$148	\$163	\$172	\$163	\$155	\$152	\$140	\$128	\$123	\$124	\$145	\$1,598
Southeast	\$14	\$16	\$19	\$21	\$19	\$18	\$17	\$16	\$14	\$13	\$14	\$16	\$181
Pioneer Valley	\$10	\$11	\$12	\$13	\$12	\$12	\$12	\$12	\$11	\$11	\$12	\$12	\$129
Central MA	\$550	\$517	\$571	\$597	\$562	\$538	\$569	\$595	\$583	\$596	\$603	\$571	\$6,281
Berkshires	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$9
Cape and Islands	\$3	\$4	\$4	\$4	\$4	\$4	\$4	\$3	\$3	\$3	\$2	\$3	\$38
MA Total	\$709	\$697	\$770	\$808	\$761	\$728	\$756	\$767	\$739	\$747	\$756	\$749	\$8,237

Source: The Hanover Insurance Group, UMDI, REMI, FTA

By definition and necessity, creating output, or business revenues, requires labor, so increasing output also creates hiring.

- The data provided to the research team shows that from 2010 to 2020, The Hanover employed an average of 1,837 people in Massachusetts, which in turn supported an average total of 6,187 jobs across the Commonwealth.
- That number rose from 6,254 in 2010 to 6,918 in 2013, before gradually declining to 5,404 in 2020. The majority of those jobs were located in

Central Massachusetts, the home of The Hanover's headquarters.

- **Approximately 30% of jobs supported by operations of The Hanover statewide, and 40% of jobs within Central Massachusetts, were jobs with The Hanover.** This means The Hanover has an employment multiplier of 2.49 in Central Massachusetts and 3.37 statewide. In other words, for every person employed at The Hanover, an additional 2.37 workers are employed elsewhere in Massachusetts at jobs supported by the operations of The Hanover.

Table 5: The Hanover's Contributions to Employment (2010-2020)

TOTAL EMPLOYMENT	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	AVG.	CUM.
Metro Boston	1,159	1,322	1,428	1,483	1,367	1,275	1,223	1,084	955	890	877	1,188	13,064
Southeast	199	233	258	271	247	228	214	185	160	143	143	207	2,281
Pioneer Valley	144	156	167	175	164	160	160	149	137	135	138	153	1,682
Central MA	4,698	4,615	4,841	4,916	4,737	4,668	4,751	4,446	4,272	4,241	4,205	4,581	50,389
Berkshires	9	9	10	10	10	10	11	9	8	8	8	9	103
Cape and Islands	46	55	61	63	59	54	51	44	37	34	32	49	536
MA Total	6,254	6,390	6,767	6,918	6,583	6,394	6,409	5,917	5,570	5,450	5,404	6,187	68,055

Source: The Hanover Insurance Group, UMDI, REMI

Table 6 shows the top 10 industries supported by the operations of The Hanover, in terms of jobs in 2020, with the finance and insurance industry being the largest by far. This includes jobs at The Hanover itself, as well as jobs supported by commissions paid by The Hanover to independent insurance agents in Massachusetts. Most of the other top industries, such as construction, state and local government, retail trade, accommodation and food services, and health care and

social assistance, are industries that are often prominent in these sorts of analyses. This is largely due to the reliance of these industries on consumer spending or broad-based economic growth. Retail, accommodation and food services, and health care and social assistance respond to increases in wages and consumption, while construction and government spending respond to general growth through demand for new capital stock and greater available tax revenues.

Table 6: The Hanover's Employment Contributions by Industry

SECTOR	CENTRAL REGION	MASSACHUSETTS
	JOBS (2020)	JOBS (2020)
Finance and insurance	2,429	2,633
Construction	191	214
State and local government	437	553
Retail trade	210	317
Accommodation and food services	210	321
Health care and social assistance	175	333
Administrative, support, waste management, and remediation services	144	219
Professional, scientific, and technical services	121	213
Other services (except public administration)	102	163
Real estate and rental and leasing	63	145

Source: The Hanover Insurance Group, UMDI, REMI

As mentioned above, only 30% of jobs supported by The Hanover statewide were positions at the company itself. The remainder of the economic impact came from a series of sources.

- In 2020, 854 positions in Central Massachusetts, and 1,086 positions statewide, were supported by the business-to-business spending.
- Another 814 positions in Central Massachusetts, and 1,607 positions statewide, were supported by

induced spending. Most of this induced spending was supported by the wages paid to workers at The Hanover and elsewhere.

- In addition to jobs supported in the private sector, taxes collected on the economic activity driven by The Hanover supported another 533 government jobs in Massachusetts, including 437 in Central Massachusetts.

Table 7: The Hanover's Employment Contributions by Demand Source

DEMAND SOURCE	JOBS (2020)	
	CENTRAL REGION	MASSACHUSETTS TOTAL
Private non-farm	3,768	4,851
Business to business	854	1,086
Induced	814	1,607
Consumption-based*	784	1,267
Other induced*	30	340
Government	437	553
Total	4,205	5,404

Source: The Hanover Insurance Group, UMDI, REMI
*included in the Induced category

The pattern of personal income supported by The Hanover's operations follows that of employment.

- Income gains average \$606 million per year statewide and \$354 million per year in Central Massachusetts.
- Cumulative gains are \$6.7 billion and \$3.9 billion. Like with employment, most (59%) of the total impacts accrue to the host region, though the share is less than the share of employment (74%), which may reflect differences in average wages between Central

Massachusetts and the second most-affected region, Metro Boston.

- Combining the income and employment data suggests that the income per job is approximately \$97,925 for the state and \$77,378 for Central Massachusetts. The lower wages in Central Massachusetts may be a result of the lower-wage service sector jobs that are supported by the spending of The Hanover employees, who are concentrated there, and generally lower costs of living outside of metro Boston.²

Table 8: The Hanover's Contributions to Personal Income (2010-2020)

(\$ in millions)

PERSONAL INCOME	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	AVG.	CUM.
Metro Boston	\$137	\$173	\$195	\$217	\$216	\$216	\$218	\$203	\$189	\$182	\$182	\$193	\$2,127
Southeast	\$21	\$27	\$31	\$34	\$34	\$33	\$33	\$30	\$27	\$25	\$25	\$29	\$318
Pioneer Valley	\$16	\$18	\$20	\$23	\$23	\$24	\$25	\$24	\$24	\$24	\$25	\$22	\$246
Central	\$254	\$260	\$289	\$333	\$346	\$377	\$405	\$395	\$398	\$411	\$432	\$354	\$3,899
Berkshires	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$10
Cape and Islands	\$4	\$5	\$6	\$7	\$7	\$7	\$7	\$6	\$6	\$5	\$5	\$6	\$64
MA	\$432	\$484	\$542	\$615	\$626	\$658	\$688	\$660	\$644	\$647	\$670	\$606	\$6,664

Source: The Hanover Insurance Group, UMDI, REMI

² Personal income includes the value of benefits, property income, and government transfers and is thus greater than simple wage or salary.

Charitable Giving

Throughout its history, the company and its employees have been there for others, coming together with its many partners to provide support for a range of needs in the cities and towns where its employees live and work, building strong, vibrant communities through charitable contributions and employee volunteerism.

The company's impact is most evident in Massachusetts, and in particular, in its home community of Worcester.

Table 9: Select Charitable Contributions of The Hanover (2010-2020)

Education and STEM	\$4 million
Arts, Culture and Entertainment	\$2.9 million
United Way of Central Massachusetts	\$2.5 million
Youth Programming	\$1.4 million
Community Safety Net	\$1 million

Source: The Hanover Insurance Group, UMDI

Since 2010, The Hanover has continued to make a wide range of charitable contributions in Worcester, both large and small. Examples include:

- The Hanover is a long-time partner of the Worcester Public Schools and a supporter of STEM-based education programs. Since 2010, the company has made numerous contributions to the city's school system, including grants to establish The Hanover Insurance Academy of the Arts, a program for gifted and talented students, and AVID (Advancement Via Individual Determination), an innovative program that encourages students in the academic middle to attend college. The company also has made significant contributions to the EcoTarium, a science and nature museum located within the city's boundaries that draws visitors and members from across the Commonwealth.

- The Hanover and its employees donate generously through their annual United Way campaign. The company has contributed more than \$2.5 million to Worcester-area local United Way agencies and nonprofit organizations over the past decade, helping neighbors in need. The Hanover's United Way campaign has one of the highest participation rates in the world among companies that are part of the United Way's Global Corporate Leadership program, and has a participation rate five times the national average. Hanover employees nationwide directed more than \$10 million over the past 10 years to United Way-affiliated organizations and other nonprofit organizations across the country, with a significant portion of those funds donated to nonprofits in and around Worcester.
- In 2021, the company played an active role in the community's effort to bring the Boston Red Sox triple-A affiliate minor league team to Worcester, making a commitment of \$875,000 to the effort. The WooSox already are having a very positive impact on the city's economy, bringing tens of thousands of fans to the city.
- The company has made a substantial commitment to the YMCA as well in recent years, donating more than \$750,000.

SUMMARY IMPACTS

The company has made hundreds of other important contributions to community organizations, social services, and nonprofit organizations in the city, supporting a wide range of organizations and causes. Examples of such organizations include:

- American Red Cross
- Big Brothers Big Sisters of Central Mass & Metrowest
- Boys and Girls Club of Worcester
- Central Massachusetts Housing Alliance
- Girls Inc. of Worcester
- Old Sturbridge Village
- Worcester Educational Development Foundation
- Worcester Education Collaborative
- You, Inc. – Seven Hills Foundation
- YMCA and YWCA of Central Massachusetts



Community Impacts

In addition to its direct expenditures, interviews conducted by the research team revealed that The Hanover also contributes to the economic well-being of the region through its role in enabling community growth and development. As described to us by interviewees inside and outside The Hanover, the company wishes to not only be a good neighbor but also to create and support an environment that is conducive to talent attraction and retention, for its own benefit and for the benefit of other local employers. It does this through charitable contributions and also by focusing on economic growth by way of its investments and leadership involvement in nonprofit organizations and business groups.

In recent years, the company has made two unusually large commitments of time, energy, and expertise to support critical economic development in the city and the region: the campaign to create The Hanover Theatre and a concerted effort to build out CitySquare, a 13-acre, mixed-use development space in the heart of downtown Worcester. Both are viewed as crucial pieces of Worcester's renaissance.

THE HANOVER THEATRE

The Hanover Theatre opened its doors in 2008, following a determined and impassioned community fundraising, renovation, and restoration effort led in large part by The Hanover. **Over a period of several years, The Hanover played a lead role in a marketing and fundraising campaign that raised more than \$30 million, and, as the project's largest single donor, the company contributed nearly \$5 million.**

The effort involved the ground-up renovation of a historic and long-abandoned theatre in the south end of the city's central business district. The Hanover played a central role in the multi-year effort, providing financial and technical

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Many of the classes are over-subscribed. The youth summer theatre program sells out in minutes. It showcases the pent-up demand for quality instruction and aligns with The Hanover's commitment to education and helping our youth achieve their full potential.”

Dick Lavey
Executive Vice President and President, Hanover Agency Markets, and Former Theatre Board Member

knowledge, marketing and communications support, and advisory services at every stage of the project. Financing drew on public and private sources and included a combination of tax credits, in particular, new market tax credits, and donations from local foundations, businesses, and individuals.

The Hanover Theatre has been recognized as one of the top theatres in the world for attendance and ticket sales, accommodating audiences of 2,300 people. The theatre brings internationally recognized performers, popular Broadway shows and locally produced performances to stage. Its success has served as a catalyst for the revitalization of the city, and in particular, its cultural district.

The Hanover Theatre also has made its own important contributions to the local economy and community. According to the New England Foundation for the Arts, it has attracted more than 2.5 million patrons, contributed more than \$13 million in economic impact to the City of Worcester, and established a strong, loyal following, with more than 8,000 members, subscribers, and donors.

The theatre's success and The Hanover's support also led to the creation of the Conservatory for the Performing

Arts at the theatre. The conservatory connects industry professionals and arts teachers with students seeking to improve their skills in dance, acting, music, and theatrical trades.

In addition, The Hanover Theatre supports an extensive community outreach program. The theatre serves as a center of culture, education, and community, leveraging the transformative power of the performing arts to enhance the quality of life in and around Worcester. The theatre makes complimentary tickets available to underserved families, showcases local artists, hosts civic events, sponsors an adopt-a-school program, offers scholarships programs, and more.



CITY SQUARE

While the opening of The Hanover Theatre in 2008 created a new draw for downtown Worcester, at that time, the area remained in need of extensive rehabilitation and development. **The consensus from the interviews conducted by The Donahue Institute is that The Hanover's role in the CitySquare redevelopment project was and is critical to the larger revitalization of Worcester.** The project is located in the heart of the city, on the site of the former Worcester Galleria, a shopping mall with one million square feet of space including retail and parking. Though the Galleria was once part of a hot trend in urban redevelopment, over time, its drawbacks became clear, including its disconnecting the city from walkable streets and businesses, as well as pre-existing transportation networks. Specifically, the Galleria cut off the central business district and the downtown from other key bustling thoroughfares.

The Hanover's involvement with CitySquare began in 2010 through its investment arm, Opus Investment Management, Inc. After an ambitious development project planned for Worcester's downtown failed to break ground following years of inactivity, The Hanover, through Opus, acquired a 10.5-acre plot of land at the original CitySquare site. The company later purchased an additional 2.5 acres of adjacent land through separate transactions in late 2010 and in 2013. The goal was to work with the city and others to make their vision of a successful, mixed-use development a reality, helping bring this critical economic development effort to fruition, generating other important development in the city, and ultimately supporting Worcester's revitalization.

Working closely with its developer and construction manager, Leggat McCall Properties, The Hanover



helped transform the city's downtown district through its work at CitySquare, reconnecting main streets and prominent destinations, combining office, medical, retail, residential, and green spaces with the surrounding business community and urban neighborhoods, bringing new excitement and economic activity to the area.

In place of an abandoned mall that restricted commerce and community, The Hanover, Leggat McCall and their many partners have seen their efforts rewarded by:

- The development of a 214,000-square foot LEED Silver building and adjacent 865-car parking garage
- St. Vincent Hospital's 60,000-square foot cancer and wellness center
- Approximately 370 units of new market-rate residential housing, with additional housing anticipated
- More parking and retail space

The last two parcels at CitySquare were sold to a developer in April 2022. Today, CitySquare is the product of 12 years of determination and persistence. It represents the largest public/private development of its kind outside of Boston and has yielded tremendous benefits for the city.



The CitySquare developments to-date have already created a whole new neighborhood right in the core of Worcester and reconnected that district... in a transformative way."

Craig Blais
President and Chief Executive Officer
Worcester Business Development Corporation

ENCOURAGING FURTHER DEVELOPMENT

By providing new reasons to visit downtown Worcester, the redevelopment of The Hanover Theatre and CitySquare became catalysts for economic development throughout the city, enabling better utilization of its assets.

The revitalization of the downtown area has enabled multifaceted changes. Some, like the developments directly tied to The Hanover Theatre and CitySquare, were addressed prior. Others have followed and became the seeds for yet more growth. Notable among these are the expansion of colleges, new hotel inventory, more amenities and housing, and the relocation of the Boston Red Sox AAA affiliate. **As Ann Tripp, a former Hanover executive who played a critical role in CitySquare's development, said, "I don't want to say that CitySquare was the only trigger, but it was a big trigger because it has activated downtown."** Many outside The Hanover agree with this assessment.

A few years after the opening of the The Hanover Theatre and the start of the CitySquare development, Quinsigamond Community College announced that it would open a satellite location in downtown Worcester. In February 2013, QCC revealed plans for the Health Care and Workforce Development Center on Federal Street, which opened in the fall of 2014. Repurposing the old Telegram & Gazette building, the Health Care and Workforce Development Center occupies over 72,000 square feet and houses most of the college's health care programs. Like The Hanover Theatre, it was the culmination of cooperation between public and private organizations, namely the city, the college, and the Worcester Business Development Corporation.

The redevelopment of CitySquare and Worcester's downtown has also led to a burgeoning restaurant and bar scene and newer, market-rate, multi-family housing. Together these have provided the amenities that attract and retain young workers vital to The Hanover and other local employers. The apartments constructed at CitySquare were 94% leased in under a year. Current plans



The Hanover-led projects at the theatre and CitySquare set the stage for what is possible for the city and reinforced how complicated projects can be successful when public and private sectors work together."

Tim Murray
President and Chief Executive Officer
Worcester Regional Chamber of Commerce

call for more multifamily housing. Enabled by and further reinforcing the movement of workers to Worcester is the regular rail service to South Station in Boston. The growth in people living downtown, enabled by The Hanover-led redevelopment, has led to an expansion of rail service to better meet demand and strengthen the connection to eastern Massachusetts.

Hewn from the old Galleria site, the AC Marriot is the only hotel in the heart of downtown. It fills a need for lodging near the DCU Center and The Hanover Theatre, and in doing so, it has enabled better programming of conventions, conferences, and other large events. It also makes it easier for out-of-town guests of the DCU Center or theatre to attend a show and stay overnight, while the other new amenities of downtown give them more reasons to extend their stays.

Perhaps no other subsequent development has been as visible as the arrival of the Worcester Red Sox and the related redevelopment of the Canal District. The interviewees put it to the research team quite simply: Triple-A baseball would not have come to Worcester without The Hanover, Polar, UMass Medical, and the city's other major employers coming together. We were told by numerous people that the leadership of Worcester's large businesses, universities, hospitals, and human services groups maintain regular communication with each other and with the city's and the region's political leaders, and meet monthly to discuss issues that affect their collective interests. This group seeks to find common areas of cooperation where public and private interests align with the goal of making ongoing improvements in the city.

It was through these relationships that business leaders were able to exceed the expectations of the Pawtucket Red Sox. As a team eyeing a move, sponsorship and investment from public and private interests was vital to the financial logic of relocating to Worcester. The city did its part by making the new ballfield the lynchpin of the redevelopment of Kelley Square and the Canal District. The business community did its part by tripling the number of companies making multi-year financial commitments relative to what the PawSox sought. The ability of the city and business community to work together toward the common goal of attracting the PawSox is emblematic of how executive involvement helps the community leverage and amplify its strengths to achieve its aims. ■



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So many significant projects have The Hanover's hand in them somehow. Whether it's an investment project, a building project, an activity to move the schools forward or so on, The Hanover has been involved.”

Tim Garvin
President and Chief Executive Officer
United Way of Central Massachusetts

Appendix 1: Economic Modeling Methodological Summary

The economic impact analysis relied on data provided by The Hanover and analyzed by the research team using the PI+ economic impact model developed by Regional Economic Models, Inc. (“REMI”). The Hanover provided data to UMDI on total employment, contractor and non-payroll employees, revenues, compensation, and commissions paid to its agents. The company also provided the number of employees working at each of the company's Massachusetts locations. The PI+ model used for this study is six-region model of Massachusetts. The region configuration is shown in the table below.

Table 10: Region Configuration of PI+ Model

MODEL REGION	COUNTY
Metro Boston	Essex
	Middlesex
	Norfolk
	Suffolk
Southeast	Bristol
	Plymouth
Pioneer Valley	Franklin
	Hampden
	Hampshire
Central	Worcester
Berkshires	Berkshire
Cape and Islands	Barnstable
	Dukes
	Nantucket

Because each industry has its own economic characteristics, linking the data provided to the correct industry is vital to achieving valid results. The most important characteristic for this study is the purchasing pattern for each industry (called the input output vector

in the technical literature). This pattern determines how the revenues brought in by a business get redistributed to its vendors and suppliers. In the case of The Hanover, the team mapped the company's operations to the insurance carriers and related activities sector. Its non-payroll spending on security and custodial services were mapped to the administrative and support services and waste management and remediation services sectors, respectively.

One early challenge that the team encountered was determining how to estimate the revenue The Hanover derived from Massachusetts. While The Hanover is headquartered in Massachusetts and has a robust customer base in the Commonwealth, it is a nationwide company and much of its revenue is due to its business operations in other states. At the same time, those operations are supported by operations at The Hanover's Worcester headquarters and other Massachusetts locations. In conversations with employees at The Hanover, we estimated that a good proxy for in-state revenues could be found using the commissions paid to in-state agents.

Other key characteristics linked to industry sector are labor productivity and average wage. In the case of these two, when entering the activities of The Hanover into the model the team overrode the model's default assumptions and substituted the data provided to us. Using the actual data to represent The Hanover will provide more accurate results than using industry averages. Because the team had employment and estimates for The Hanover's Massachusetts revenues, we could find labor productivity, which is simply revenues per employee. Similarly, average wage, or wages per employee, was found using the employment and wage data provided. We were then able to adjust the amount of industry sales in the model to match our estimates regarding The Hanover's revenues.

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