

DARTMOUTH

Dartmouth's Community Impact

September 2018

Introduction:

Dartmouth College educates the most promising students and prepares them for a lifetime of learning and of responsible leadership, through a faculty dedicated to teaching and the creation of knowledge. In fulfilling its mission as an educational institution, Dartmouth strives to serve its students as well as the Upper Valley community through its role as an employer, collaborator, and innovator. This report illustrates the symbiotic relationship between Dartmouth, Hanover, and the Upper Valley in areas including economic impact, research and innovation, education, arts and culture, sustainability and conservation.

Economic impact:

Dartmouth has a substantial financial impact on the local, regional, and state economies of New Hampshire and Vermont.

Taxes & Fees:

Dartmouth pays taxes on all dormitories, dining rooms, and kitchens with values in excess of \$150K, as well as about 500 off-campus rental properties and commercial properties (approximately 53% of its Hanover property holdings). Dartmouth is Hanover's largest taxpayer, contributing roughly 20% of the taxes in support of the county, town, and school budgets.

Employment:

Dartmouth is New Hampshire's ninth largest service sector employer with 3,497 resident employees (Dartmouth Hitchcock is the largest employer with 9,100 employees)¹. In FY17 Dartmouth paid \$464M in payroll and employee benefits.

Dartmouth is also a large local spender. According to an analysis of purchasing data, Dartmouth spent about \$146M in New Hampshire and Vermont in FY17².

Dartmouth's economic impact extends beyond its direct actions as a local spender and employer. Dartmouth's 4,300 undergraduate and 2,000 graduate students make up a significant portion of Hanover's total population and, as residents and consumers, play a critical role in the local economy. In addition to its students, Dartmouth annually attracts over 30,000 prospective student visitors, often accompanied by family members, who stimulate Hanover's economy through spending on food, lodging, and other local purchases.

¹ NH employment data comes from the [New Hampshire Book of Lists](#) compiled by the [NH Business Review](#)

² Upper Valley spending: approximately \$78M; NH/VT spending outside the Upper Valley: approximately \$68M.

As Dartmouth, its employees and its students participate in the local economy, additional jobs and revenue are created. Though it's difficult to capture the precise magnitude of this ripple effect, a recent study of NH colleges and universities estimates that the total (indirect and direct) economic impact of higher education in NH is equivalent to approximately \$6.4 billion³.

Local Collaborations:

Knowing that its students, faculty, and staff benefit immensely from the resources of the Upper Valley community, Dartmouth partners with the town to support local activities, events, and initiatives. Examples include:

- Dartmouth sponsors and supports activities and events through many local nonprofits, such as Vital Communities and the Prouty.
- In collaboration with Hanover, the Dartmouth Real Estate Office has led development projects improving downtown Hanover, most recently on Currier Place.
- Dartmouth is a member of the Hanover Area Chamber of Commerce (HACC). Dartmouth sponsors and participates in numerous HACC events throughout the year. Recent examples are Governor Chris Sununu's "State of the State" lunch, the HACC Golf Tournament, and Art in the Park. HACC hosts a farmers' market on the Dartmouth Green from June to October, supported by Dartmouth and the town of Hanover.
- Dartmouth sponsors an annual United Way campaign for its employees. In 2017-18, Dartmouth employees contributed a total of \$294K to the United Way campaign. Through a program launched in 2017, Dartmouth employees are encouraged to take one day of paid time off annually to volunteer for United Way-supported non-profit agencies.
- Dartmouth supports local emergency providers by making direct contributions (such as providing a safety boat) as well as offering safety, emergency response, and hazards training courses.
- The Dresden School District includes two schools in Hanover, NH (the Richmond Middle School and Hanover High School). Dartmouth was a partner in the Tri-Party Agreement that saw the expansion of Hanover High School and the construction of the Richmond Middle School.

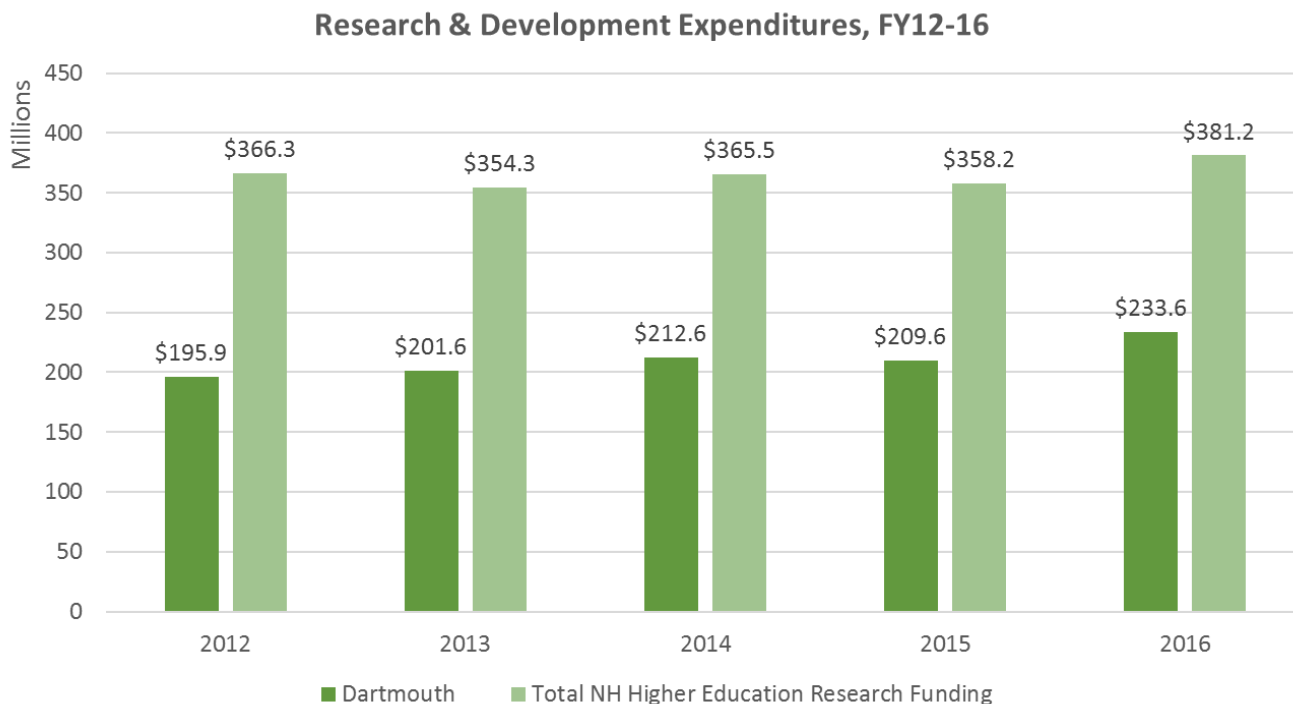
Research & Innovation

In addition to their work as educators, faculty are involved in cutting-edge research in the arts and sciences, medicine, engineering, and business. Faculty and student research brings federal dollars to New Hampshire and fuels discoveries with local and worldwide impact.

According to the FY16 Higher Education Research and Development Survey (HERD), Dartmouth research spending accounted for 61% of all higher education research spending in New Hampshire,

³ See the [Economic Impact: New Hampshire's Public and Nonprofit Private Colleges and Universities](#)

making it the largest research institution in the state.⁴ Awards to Dartmouth accounted for 84% of all National Institutes of Health and 45% of all National Science Foundation funding to New Hampshire in FY17.⁵ The chart⁶ below illustrates Dartmouth’s research funding in more detail:



Entrepreneurship and Innovation:

Dartmouth is dedicated to helping students, faculty, staff, and community members translate their ideas into new technologies and start-up companies, which, in the long-term, create jobs, revenue and societal impact. Dartmouth faculty have founded many companies that have become major employers in the area including Creare, Hypertherm, Adimab, and Solaflect.

To further encourage this kind of entrepreneurial activity, Dartmouth established the DEN (the Dartmouth Entrepreneurial Network) in 2001 and, in 2004, partnered with key state economic development agencies to create the Dartmouth Regional Technology Center (DRTC). Dartmouth greatly expanded DEN’s scope in 2014 through the creation of the DEN Innovation Center. This entrepreneurial support provides resources and programming for early-stage ventures in the Upper

⁴ Data is calculated using the [Higher Education Research Development](#) (HERD) survey conducted by the National Science Foundation. The HERD survey uses Dartmouth’s fiscal year, which runs from July 1st to June 30th, and includes federal funding for financial aid.

⁵ Data is calculated using [National Institutes of Health](#) (NIH) and [National Science Foundation](#) (NSF) funding reports. NSF and NIH calculate this data using the federal fiscal year, which runs from October 1st to September 30th. Because Dartmouth uses a July 1st to June 30th fiscal year, research spending as calculated by Dartmouth differs from federal calculations that use the federal fiscal year.

⁶ The “Dartmouth Research & Development Expenditures Compared to NH Higher Education Research Funding, FY11-FY16” chart uses data from the [Higher Education Research Development](#) (HERD) survey

Valley. In addition, Dartmouth’s technology transfer office helps faculty protect and commercialize their inventions.

The DRTC currently incubates 15 active ventures including: Argo Research, Avitide, BioFlag Therapeutics, CairnSurgical LLC, Celdera Medical, DoseOptics LLC, FirstLight Fiber, FlowTraq, FreshAir Sensor LLC, Mobile Virtual Player LLC, PreventAGE Health Care, RyTek Medical, Saureus, and VivCyte.

Like the DRTC, much of the DEN’s programming is open to community members as well as Dartmouth students, faculty, and staff. Since the DEN expanded its scope in 2014, it has organized approximately 200 events, funded and incubated more than 100 ventures, and awarded \$500K in grant money. Furthermore, DEN is both a member and actively supports the NH Business Incubator Network and the state’s Live Free and Start initiative.

These efforts contribute to New Hampshire’s entrepreneurial ecosystem by creating jobs, attracting venture capital funding, and fostering research and industry collaborations between faculty, students, staff, and community members.

Education:

Dartmouth Students:

Dartmouth is committed to supporting students regardless of socioeconomic circumstances through need-based financial aid. About half of all undergraduates receive financial aid, and tuition is free for those from families with an annual income of \$100,000 or less and typical assets. Of the 67 Dartmouth students who hail from New Hampshire, 87% receive financial aid. The average award for New Hampshire students was over \$44K in 2017. Of the 34 Dartmouth students who hail from Vermont, 94% receive financial aid. The average award for Vermont students was over \$45K in 2017.

2017-18 Enrollment Numbers

	Total Enrollment
Undergraduate	4,410
Graduate Arts & Sciences	723
Geisel School of Medicine	498
Thayer School of Engineering	285
Tuck School of Business	593
Total	6,509

Community:

Dartmouth students are not the sole beneficiaries of the College's educational offerings. Lectures, exhibits, and sports events are open to community members, in many cases free of charge (see the Community Access and Events appendix for more information about Dartmouth's educational, cultural, and athletic offerings) and Dartmouth offers several educational enrichment programs for a range of audiences, including:

- The Special Community Student Program enables local high school students to earn credit for Dartmouth courses for free. In 2016-2017, 74 students (from eight local high schools plus homeschoolers) enrolled in a combined total of 100 classes. Valued at \$6,862 per course, this benefit had a dollar value of close to \$700,000 in 2016-17.
- Summer Enrichment at Dartmouth (SEAD) is an educational equity and access program for low-income high school students. During the four summers of their high school years, SEAD Scholars take classes taught by professional educators, explore collegiate activities, learn the skills necessary to navigate college, and develop relationships with the Dartmouth community.
- The Osher Lifelong Learning Institute at Dartmouth offers educational programs year-round for Upper Valley residents. In addition to offering 25 to 85 courses each term (fall, winter, spring and summer), Osher organizes social activities, a summer lecture series, Dartmouth library privileges, and art events for its members.
- Dartmouth is a member of edX, a not-for-profit educational consortium that produces open-access "MOOCs" (massive open online courses). These courses are free for lifelong learners, and have proven popular amongst NH educators, working professionals, and retirees. A number of New Hampshire middle and high school teachers have also used content from DartmouthX courses as supplementary material in their classes.

Arts & Culture

Students, faculty, staff, and community members convene under one roof for the various performances, exhibits, lectures, movies, and events sponsored by the Hopkins Center for the Performing Arts and the Hood Museum of Art. Each year the Hood's exhibitions and the Hop's visiting artists and artists-in-residence draw thousands of local and non-local visitors to Hanover.

Many of these events are free and open to the public, including all Hood museum exhibitions and lectures, as well as the HopStop family series and summer events on the Green. Both the Hood and the Hop collaborate with local schools to bring local K-12 students to Dartmouth for interactive field trips throughout the year.

Sustainability & Conservation

Dartmouth's location in Hanover and proximity to the natural beauty of the Upper Valley is central to its institutional identity. In the areas of energy, transportation, and food services, Dartmouth is dedicated to sustainable practices that ease its environmental toll on the surrounding community.

On Earth Day 2016, President Hanlon appointed a Sustainability Task Force to recommend a set of institutional sustainability goals for Dartmouth. This group of students and administrators spent the 2016-2017 year identifying institutional targets for energy, waste, food, water, transportation, and landscape and ecology. The group also identified key opportunities for sustainability to support Dartmouth's core mission.

Dartmouth has played an active role in the Sustainable Hanover Committee, the Conservation Commission, and local land trust (a non-profit founded by Dartmouth faculty). In addition, Dartmouth provided land for the Hanover Community Gardens and opens its Organic Farm to the public.

Energy

In 2014, Dartmouth committed to a 10% green power usage level for 5 years, making it possible for Hanover to become an EPA "Green Power Community."⁷ This initiative supports Hanover's "Ready for 100" campaign, which was unanimously adopted at the 2017 town meeting and commits the town to using 100% renewable energy sources by 2050. To contribute to this ambitious goal, Dartmouth has committed to reducing its total emissions from its 2005 level by 30 percent by the year 2030.

Transportation

Dartmouth works collaboratively with the local transportation management association, school districts, major employers, and transit service providers to promote sustainable transportation. In fiscal year 2017, the College provided more than \$500K in funds to support local transit and shuttle buses:

- Five fare-free public routes across the upper valley (Enfield, Lebanon, Hartford, Norwich, Hanover).
- Dartmouth/Downtown shuttle for public access to points along the Dartmouth campus and the central business district of Hanover.
- Public transit lines that operate along the I-91 and I-89 corridors carrying employees from rural communities to upper valley employers (Stagecoach-89er from Randolph with stops in Bethel, Sharon & WRJ; Stagecoach-River Route from Wells River with stops in Bradford, Fairlee & Thetford; The Current from Bellows Falls with stops in Springfield, Ascutney, Hartland & WRJ.)

Dartmouth also supported or participated in these other initiatives:

- \$85K spent on THE ZAGSTER bike-sharing program, with 50 bikes and 9 racks available across campus by membership for Dartmouth constituents and the wider community. The program averaged 300 members during the first year who took over 9,500 trips.

⁷ According to the [2015 Hanover Town Report](#), "to be designated a Green Power Community a portion of the community power usage, 5% for a community of Hanover's size, must be offset by renewable energy either through power generation or by investing in Renewable Energy with the purchase of Renewal Energy Credits (REC)."

- Over 60 registered Dartmouth carpools and four vanpools (Bradford, Chelsea, St Johnsbury, Grantham) reduce impact on parking demand and the number of single occupant vehicles traveling to Hanover each day.
- Employee participation in local transportation management associations and transit boards.
- \$20K contributed to support roadway improvements near DHMC and Centerra for pedestrians and bicyclists.
- Hosts five Zipcars on campus that provide car-sharing opportunities to Dartmouth constituents and the public, with 122,000 miles driven in 2017.

Dining

The Class of 1953 Commons Dining Hall and other dining locations on campus employ various strategies to improve sustainability and minimize impact. Examples include:

- Use of “green” cleaning products
- Bulk cardboard: more than 1,200 pounds a week recycled
- Recycling waste frying oil for biodiesel production
- Recycling plastic and metal bulk food containers
- More than 100 cubic yards of trash eliminated from the waste stream each week due to aggressive composting
- 100% of pre-consumer food scraps composted.
- Recycling 1–7 plastics, aluminum, cardboard, paper, and glass
- Recycling newspapers and mixed paper
- Use of bleach-free compostable paper napkins

Dining Services also supports many local and regional farmers and producers in the New England area. In total, Dartmouth sources 18% of its food from local and regional⁸ vendors.

Conservation

Dartmouth owns about 40,000 acres in New Hampshire and Vermont and maintains nearly 50 miles of trails (including the Appalachian Trail passing through Hanover) and seven lean-to shelters, all open for public use. More than two-thirds of that acreage is located north of Hanover at the Second College Grant and at Moosilauke in Warren and Woodstock. Dartmouth was given the Second College Grant, a township of nearly 27,000 acres, by an act of the New Hampshire legislature in 1807. The Grant is used for timber production, research, educational, and recreational purposes. It has received Green Tag Certification and is a member of the American Tree Farm System. Mount Moosilauke, nearly 4,500 acres, is also used for research, education and recreation.

Since the 1960s Dartmouth has been involved in conservation initiatives including more than 3,000 acres of land. Efforts have ranged from permanent trail easements along the Girl Brook Corridor, financial contributions to support the acquisition on the Mink Brook Nature Preserve, conservation easements along the Connecticut River, and even the conveyance of acreage in Sargent’s Purchase

⁸ Dartmouth uses the State of New Hampshire Dept of Agriculture definition of “Within the boundaries of the State of New Hampshire” to indicate local and uses a 250 mile radius from the College to indicate regional.

on the summit of Mount Washington to the State of New Hampshire. Most recently, Dartmouth sold the 175-acre Hudson Farm in Hanover to the National Park Service, which was added to the Appalachian National Scenic Trail. Facilitated by the Trust for Public Land, the deal protects the property from development and preserves an important recreational resource.

Appendix: Examples of Community Service, Access, and Events by departments and schools

Community Service

- Dartmouth's Center for Social Impact counted 865 volunteers serving almost 16,000 hours in the local community last year. Much of this service is in critical areas such as youth mentoring.
- Campus-wide data reflects a three-year average of over 90,000 hours of service. This service is not exclusively local, but a good portion of it is in the Upper Valley.

Community Religious Activities

- Rollins Chapel: many community spiritual activities take place in Rollins Chapel. Regularly scheduled Ecumenical Christian and Hindu Puja services; the Rev. Dr. Martin Luther King, Jr. and Baccalaureate multi-faith services; and Jewish High Holiday services take place in Rollins.
- The Roth Center for Jewish Life, founded in 1997, provides a home and a sense of family for Dartmouth students and the Upper Valley Jewish Community (UVJC). Dartmouth's Hillel and the UVJC have collaborated successfully on religious and academic programs to the benefit of both communities and continue to build a relationship through various events. The Roth Center is home to a kosher kitchen, which is open to be used by anyone who demonstrates an ability and knowledge to keep it kosher.
- Shanti, the Hindu student organization, was founded in 2002 by student and community members interested in practicing, learning about, and representing the Hindu faith. There is a Hindu temple in Rollins Chapel for daily puja. Shanti organizes special events, such as a large community Diwali celebration.
- The Muslim Prayer Room in North Fairbanks Hall is used for various purposes—primarily for congregational prayers, such as Friday Jum'ah prayer services, and 'Ishaa and Fajr prayers.

Athletics & Recreation

- Free tickets are given to all youth boys' and girls' sports teams and groups for specific Varsity women's sports games in honor of National Girls and Women in Sports Day.
- Community members may join the Health Fitness Center in Alumni Gym.
- Dartmouth Outing Club offers classes, rents gear, and organizes activities in the outdoors for students & community members.
- Hanover Country Club is a college-owned, semi-private course open to the public.
- The Dartmouth Cross Country Ski Center maintains over twenty-five kilometers of groomed cross-country ski trails on Oak Hill and Garipay Field in Hanover, as well as the ice on Occom Pond for ice skating.
- The Dartmouth Skiway in Lyme provides free season passes to all town residents under the age of 19 or still enrolled in school, even college. In addition, Dartmouth provides over 560 reduced rate passes and skiing to six upper valley schools.

Hood Museum of Art

- Museum exhibitions and lectures are free and accessible to anyone in community.
- Offers year-round, multiple-visit programs for local school children.
- Tours and programs for local schools serve teachers and several thousand K-12 students.
- Family Days encourage parents and children to explore works of art in the museum together.

Hopkins Center for the Performing Arts

- School Matinee Series for Vermont and New Hampshire public, private, and home-schooled students. More than 6,000 local K-12 students attend Hop performances annually. The HopStop Family Series provide free, hands-on programs to young audiences.
- START Program (Student Teachers in the Arts) pairs Dartmouth student volunteers with local area teachers in public and private schools to share their passion for music, dance and theater with school children in the Upper Valley.
- Summer Free for All series: free dance classes, performances on the Green, and films.
- Study Guides for New Hampshire and Vermont K-12 school age students and their teachers.
- Assembly Outreach brings free enriching mini-performances and lecture-demonstrations to grades K–12 in Upper Valley schools, enhancing classroom curriculum and connecting students to live performances.
- Community Ticket Program: In 2015-16 the Community Ticket Program served low income and underserved community members through partnerships with eight different community organizations. Partners were given access to all Hopkins Center performances and films and made selections based on the needs and interests of their constituents. Over 354 free tickets were ordered, and attendees participated in special events in conjunction with the performances.
- Free public previews of each new season.
- Reduced or free tickets to performances for volunteer ushers.

Dartmouth Centers

- Dartmouth operates several centers and institutes and the Montgomery Fellows program, all of which sponsor major speakers and related events open to the public, for free.

Dartmouth Libraries

- Visitors may browse the open stacks, and use electronic journals and books; newspapers and periodicals; music CDs; DVDs and videos; microforms; maps; and government documents. The library's catalog is available online to anyone.
- Rauner Special Collections Library: houses most of Dartmouth's rare books, manuscripts, and the Archives of the College and is open to the public.
- Community members may join the library, (cost is \$45/quarter or \$150/annually).
- With approval from their principal or school librarian, high school students may borrow books for a four-week period once a year for free.

Thayer School of Engineering

- Since 2008, Dartmouth LEGO League has partnered with F.I.R.S.T Lego League to host an all-day LEGO tournament open to teams from local elementary and middle schools around NH and VT.
- Hosts an annual Open House in the spring that draws hundreds of community visitors.
- Thayer students regularly visit local schools to promote engineering.
- Thayer hosts the Formula Hybrid International Competition in NH (founded in 2006).

Tuck School of Business

- All first year Tuck students devote half a day to work for Upper Valley non-profits.
- Students offer free consulting services to local nonprofit organizations, entrepreneurs, and small businesses.
- Approximately 20 Tuck Revers Fellows students serve as nonvoting members on local non-profit boards.
- Every May, students have organized the “Run for Kids,” which has raised almost than \$250,000 over the past 30 years for three local children's organizations: Child and Family Services - Upper Valley, David's House, and the Children's Hospital at Dartmouth (CHaD).

Guarini School of Graduate and Advanced Studies

The Graduate Student Service Chair sits on the Graduate Student Council Executive Committee and develops programming for local impact service opportunities for the graduate student community including weekly Upper Valley Haven dinners, an Annual Day of Service, food drives, and volunteering through the Good Neighbor Health Clinic.

In addition, events coordinated by the Guarini School include:

- Brain Buzz: a monthly science-café style event where graduate students present their research in an informal setting to members of the local community, in collaboration with the Upper Valley Food Coop (UVFC) in White River Junction and the Vermont Institute of Natural Science (VINS) in Quechee, Vermont.
- Guarini was the major sponsor of Science Day, founded by the Graduate Women in Science (GWISE) group, an annual event on campus opening labs, research equipment, and scientists to middle and high school students.
- Science Pubs at Salt Hill will soon be coming under the purview of the School; providing panel conversations to members of the local community in a science café model.
- The Neuroscience Center at Dartmouth and the graduate neuroscience community sponsor an annual brain trivia competition for teenagers called the Upper Valley Brain Bee. Prior to the contest, graduate students visit local high schools to conduct brain boot camps, to encourage participation and to increase awareness. Winners of the regional contest go on to participate in a nationwide event held in Washington D.C.
- Graduate students run Public Observing at the Observatory behind Wilder Hall every Friday evening (weather permitting). <http://physics.dartmouth.edu/news-events/public-observing>
- Regular contributions to the programming at the Montshire Museum of Science, including participation in their annual Astronomy Day.

- Graduate students across the programs regularly visit local schools and local community groups (local libraries, outdoor organizations, VINS, etc.) to teach lessons, provide context for classroom-based learning, and participate in career panels.
- Many labs across campus encourage visits from schools, and many school groups visit the greenhouse in the Life Sciences Center.
- Among other graduate-run activities and clubs is the Dartmouth Graduate Consulting Group (formerly SocialIQ), a graduate student-run consulting group that provides pro-bono consulting services for small businesses, non-profit organizations and social enterprises in the Upper Valley.

Geisel School of Medicine

- The Albert Schweitzer Fellowship: designed to develop “leaders in service”: individuals who are dedicated and skilled in addressing the health needs of underserved communities, and whose example influences and inspires others. Fellows must develop and implement a service project that provides at least 200 hours of service and has a significant health impact on local, underserved communities. Well over 100 Dartmouth Medical Students have been Schweitzer fellows.
- Buddies Program: pairs medical students with children from the community who have special needs or a chronic illness.