

UConn and UConn Health Follow-Up Questions from Higher Education Appropriations Subcommittee – 2/25/20

1. Provide UConn's costs for SERS pension over the last 20 years, split between the normal cost and the unfunded liability (Rep. Haddad)?

In FY21, the costs related to the unfunded pension liability and retiree health paid for from non-state fund sources, are projected to be \$30.9M for UConn and \$53.8M for UConn Health, totaling \$84.7M, which forms the basis for our request for relief. The chart below shows the historical breakdown of the SERS costs for UConn and UConn Health. Those costs related to unfunded pension liabilities and retiree health that UConn has had to fund with its own sources have increased by 135% over the last 10 years, while the same for UConn Health increased by 368% over the same time period, which forms the basis for our requested relief.

| SERS Retirement Costs - UConn & UCH (\$M) | | | | | | | | | | | | | | | | | | | | | | |
|---|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|----------------|---------------|----------------|---------------|
| UConn (Storrs & Regionals) | | | | | | | | | | | | | | | | | | | | | | |
| SERS Component | FY11 | | FY12 | | FY13 | | FY14 | | FY15 | | FY16 | | FY17 | | FY18 | | FY19 | | FY20 (est) | | FY21 (est) | |
| | State Reimb. | UConn Funded | State Reimb. | UConn Funded | State Reimb. | UConn Funded | State Reimb. | UConn Funded |
| Unfunded Pension | \$11.5 | \$5.6 | \$13.7 | \$7.5 | \$17.7 | \$12.9 | \$20.5 | \$24.4 | \$33.5 | \$19.6 | \$45.6 | \$13.8 | \$47.2 | \$13.4 | \$44.4 | \$14.7 | \$56.7 | \$21.9 | \$62.4 | \$16.9 | \$65.9 | \$18.7 |
| Retiree Health | \$15.4 | \$7.5 | \$12.7 | \$6.9 | \$15.0 | \$11.0 | \$12.5 | \$15.1 | \$19.5 | \$11.7 | \$28.1 | \$8.6 | \$29.6 | \$8.5 | \$29.9 | \$9.7 | \$33.2 | \$12.9 | \$39.9 | \$11.1 | \$42.2 | \$12.2 |
| Normal (incl Tier 4) | \$7.8 | \$3.8 | \$6.8 | \$3.7 | \$5.0 | \$3.6 | \$4.9 | \$5.9 | \$7.7 | \$4.5 | \$10.2 | \$3.1 | \$10.5 | \$3.0 | \$8.8 | \$3.0 | \$9.5 | \$3.6 | \$8.8 | \$2.5 | \$9.3 | \$2.7 |
| OPEB | | | | | | | | | | | | | | | \$4.1 | \$1.4 | \$4.6 | \$1.8 | \$5.5 | \$1.5 | \$5.8 | \$1.7 |
| Other (admin, adj) | (\$2.3) | (\$1.1) | (\$1.1) | (\$0.6) | (\$2.7) | (\$1.9) | \$2.5 | \$3.0 | (\$0.9) | (\$0.6) | (\$1.5) | (\$0.5) | (\$2.5) | (\$0.7) | (\$1.4) | (\$0.4) | \$2.9 | \$1.1 | \$1.1 | \$0.7 | \$1.2 | \$0.8 |
| TOTAL SERS COSTS | \$32.5 | \$15.9 | \$32.1 | \$17.5 | \$35.1 | \$25.6 | \$40.4 | \$48.5 | \$59.9 | \$35.3 | \$82.2 | \$25.0 | \$84.8 | \$24.1 | \$85.8 | \$28.3 | \$107.0 | \$41.4 | \$117.8 | \$32.7 | \$124.3 | \$36.1 |
| Non-State unfunded pension and retiree health liabilities | | \$13.2 | | \$14.4 | | \$23.9 | | \$39.6 | | \$31.3 | | \$22.4 | | \$21.8 | | \$24.4 | | \$34.8 | | \$28.0 | | \$30.9 |
| UConn Health | | | | | | | | | | | | | | | | | | | | | | |
| SERS Component | FY11 | | FY12 | | FY13 | | FY14 | | FY15 | | FY16 | | FY17 | | FY18 | | FY19 | | FY20 (est) | | FY21 (est) | |
| | State Reimb. | UConn Funded | State Reimb. | UConn Funded | State Reimb. | UConn Funded | State Reimb. | UConn Funded |
| Unfunded Pension | \$4.9 | \$4.7 | \$6.4 | \$7.0 | \$9.1 | \$12.1 | \$15.4 | \$18.9 | \$17.5 | \$21.8 | \$21.0 | \$22.4 | \$23.9 | \$23.5 | \$20.9 | \$35.2 | \$26.4 | \$37.4 | \$30.0 | \$39.7 | \$32.5 | |
| Retiree Health | \$6.5 | \$6.8 | \$5.9 | \$6.9 | \$7.6 | \$10.9 | \$9.5 | \$9.7 | \$11.1 | \$10.8 | \$13.5 | \$14.2 | \$15.6 | \$16.6 | \$14.8 | \$21.9 | \$16.5 | \$24.5 | \$19.7 | \$26.0 | \$21.3 | |
| Normal (incl Tier 4) | \$3.3 | \$3.2 | \$3.2 | \$3.4 | \$2.6 | \$3.4 | \$3.7 | \$3.6 | \$4.4 | \$4.0 | \$4.9 | \$4.7 | \$5.0 | \$5.3 | \$4.5 | \$3.9 | \$5.6 | \$4.2 | \$5.4 | \$4.4 | \$5.8 | \$4.7 |
| OPEB | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$2.3 | \$2.0 | \$2.9 | \$2.3 | \$3.4 | \$2.7 | \$3.6 | \$2.9 |
| Other (admin, adj) | (\$1.0) | (\$1.0) | (\$0.5) | (\$0.6) | (\$1.3) | (\$1.9) | \$1.9 | \$1.9 | (\$0.5) | (\$0.6) | (\$0.7) | (\$0.8) | (\$1.2) | (\$1.4) | (\$1.0) | (\$0.9) | \$1.8 | \$1.2 | \$1.5 | \$1.3 | \$1.7 | \$1.4 |
| TOTAL SERS COSTS | \$13.7 | \$13.7 | \$15.0 | \$16.7 | \$17.9 | \$24.4 | \$30.5 | \$30.4 | \$33.9 | \$31.8 | \$39.4 | \$38.4 | \$40.3 | \$43.3 | \$45.8 | \$40.7 | \$67.4 | \$50.6 | \$72.3 | \$58.0 | \$76.7 | \$62.8 |
| Non-State unfunded pension and retiree health liabilities | | \$11.5 | | \$13.9 | | \$23.0 | | \$24.9 | | \$28.3 | | \$34.5 | | \$39.5 | | \$35.7 | | \$42.9 | | \$49.7 | | \$53.8 |
| UConn and UConn Health legacy costs | | \$24.7 | | \$28.3 | | \$46.9 | | \$64.4 | | \$59.6 | | \$56.9 | | \$61.4 | | \$60.1 | | \$77.7 | | \$77.7 | | \$84.7 |

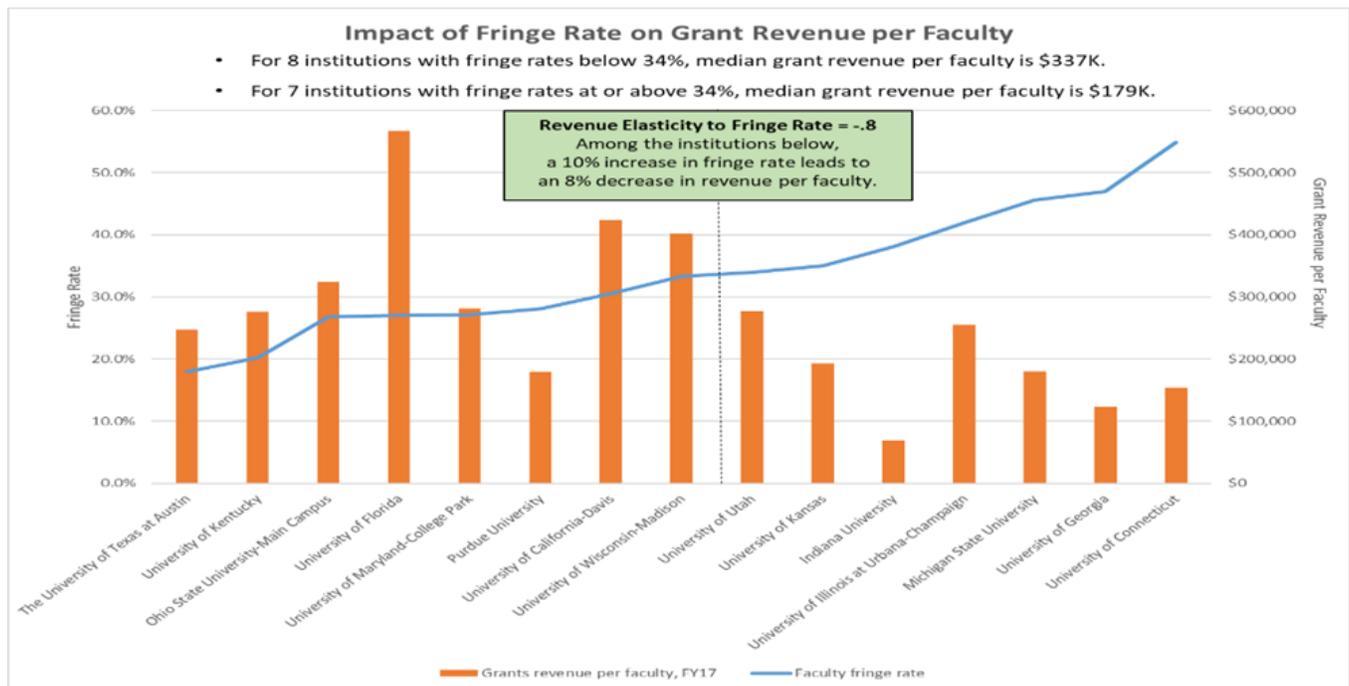
UConn's SERS costs are determined by the SERS fringe rate developed by the State Comptroller's office. The State costs that make up the rate are shown below.

| SERS Regular Retirement Fringe Rate Components - STATE COSTS | | | | | | | | | | | | |
|--|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|---------|---------|
| From Comptroller's Office | | | | | | | | | | | | |
| (in millions) | | | | | | | | | | | | |
| REGULAR | FY11 | FY12 | FY13 | FY14 | FY15 | FY16 | FY17 | FY18 | FY19 | FY20 | Change | FY11-20 |
| Unfunded Pension Liability | \$354.20 | \$426.20 | \$577.30 | \$714.60 | \$766.00 | \$873.80 | \$906.60 | \$819.00 | \$922.50 | \$935.10 | 164.0% | |
| Retiree Health Insurance | \$513.60 | \$423.10 | \$522.70 | \$463.90 | \$475.50 | \$564.90 | \$598.40 | \$585.50 | \$574.80 | \$612.40 | 19.2% | |
| Normal costs | \$242.20 | \$210.10 | \$160.40 | \$171.40 | \$176.50 | \$194.10 | \$200.00 | \$153.10 | \$144.10 | \$132.90 | -45.1% | |
| Tier 4 Defined Contribution | | | | | | | | | \$1.30 | \$2.60 | | |
| Other Post Employ. Benefit Costs (OPEB) | | | | | | | | \$79.30 | \$78.30 | \$83.90 | | |
| Administrative costs | \$8.50 | \$8.80 | \$7.90 | \$8.70 | \$9.50 | \$10.50 | \$10.50 | \$10.30 | \$10.20 | \$10.30 | 21.2% | |
| Roll-forward / Adjustments | (\$84.80) | (\$45.70) | (\$101.30) | \$82.40 | (\$34.70) | (\$43.10) | (\$66.30) | (\$46.70) | \$33.30 | \$28.90 | -134.1% | |
| Total State Costs in Rate | \$1,033.70 | \$1,022.50 | \$1,167.00 | \$1,440.90 | \$1,392.80 | \$1,600.30 | \$1,649.10 | \$1,600.50 | \$1,764.50 | \$1,806.10 | | |
| SERS Rate | 40.00% | 39.41% | 46.01% | 54.71% | 50.50% | 53.58% | 54.99% | 56.58% | 64.30% | 59.99% | | |

2. Are there any examples so far of how the lower research grant rate has impacted grant applications – e.g., rate of grant awards received for proposals submitted for Sept.-Nov. 2019 compared to Sept.-Nov. 2018? (There may not be information available yet.) (Rep. Haddad)

Since the rates were just lowered effective January 1, 2020, it is too early to quantify any impact. We will certainly monitor and collect data on the activity and impact going forward.

The following chart shows the relationship among our peers and aspirants between grant revenue and fringe rates. The blue line shows the fringe rates from low to high, and the orange bars show the level of grant revenue per research faculty. Those institutions with the highest fringe rates have the lowest grant revenue per faculty, on average.



At UConn Health, we still need to submit proposals at the higher fringe rates because we only have relief guaranteed for FY20. The fringe relief reduced costs charged to research for this fiscal year only. We have noted a positive correlation in several relevant data points, such as an increase in expenditures shifting from compensation to purchased services and/or supplies and a modest increase in personnel on grants. Some reported examples of the positive impact of fringe relief include:

- Purchased equipment to expand lab capabilities from 2 to 3 benches
- Hired a 2nd research assistant
- Increased faculty and/or staff effort on projects, which in turn produced more data for the current projects and laid the foundation for larger funding from NIH
- Allowed expansion of database for current award and to develop additional data
- Put an experiment back into a grant that had been removed for lack of funds
- Offset collective bargaining agreement increases for faculty and professionals on grants

- Offset cuts to award (obligated dollars) from NIH (cuts of 9%-12% by some NIH institutes)
- Extended personnel on project longer than initially planned
- Requested extension to project with planned re-budget from fringe benefits to supplies, travel, and animal care
- Increased service contract on critical equipment from basic to full service eliminating concerns over down time of equipment
- Ran additional sequencing experiments

3. **Discuss how projected changes in the fringe rate will impact UConn's fringe benefit cost trends over the next few years. (Sen. Osten)**

We were unable to locate the OFA report referenced at the hearing and are interested in seeing those fringe costs trends as our internal projections of fringe costs increase significantly in the out years.

4. **When using block grant funds, what is the balance of spending on academics vs. other functions? Please provide the block grant (PS) dollar amounts by functional area (e.g., academics, student services). (Rep. Lavielle)**

The entire state block grant (\$197.1M) is used to pay the salaries of employees. It covers only 47% of UConn faculty and staff. Based on the first 8 months of FY20, the chart below identifies the estimated split by functional area for those employees whose salaries are covered by the block grant. Over 60% of the block grant covers employee salaries in instructional and academic areas. No employees in the Athletic Dept. are covered by the block grant.

| Function | UConn FY20 State Block Grant (\$M)* | As percent of Total Block Grant |
|--|-------------------------------------|---------------------------------|
| Instruction | 83.7 | 42.5% |
| Academic Support | 35.0 | 17.8% |
| Operations and Maintenance | 32.8 | 16.6% |
| Institutional Support (e.g., Public Safety, Academic Administration, Communications, HR, etc.) | 30.8 | 15.7% |
| Student Services (e.g., Financial aid) | 12.1 | 6.1% |
| Public Service | 2.7 | 1.3% |
| Total | 197.1 | 100.0% |
| <i>*Excludes Workers Compensation</i> | | |

5. In what fields are each of the faculty who have left due to the fringe rate (see slide 7)? (Sen. Flexer)

| Former UConn Faculty | UConn or UConn Health | Department Faculty Left | New Institution | Total Amount Transferred (Relinquished) | New Awards Received Since Leaving UConn |
|-------------------------------|-----------------------|--|---------------------------------|---|---|
| Ramamurthy Ramprasad | UConn | Materials Science & Engineering | Georgia Institute of Technology | \$3,226,135 | \$2,188,438 |
| Mohammad Tehranipour | UConn | Electrical & Computer Engineering | University of Florida | 3,019,165 | \$6,000,000 |
| Fudong Liu | UConn Health | Neuroscience | University of Texas-Austin | 2,893,720 | 3,474,059 |
| Ulrike Klueh | UConn Health | Biomedical Engineering | Wayne State University | 1,992,935 | 568,525 |
| Doug Adams | UConn | Biomedical Engineering | University of Colorado | 1,417,010 | 684,198 |
| Kate Whitaker | UConn | Physics | UMass-Amherst | 1,091,289 | <i>No data; too recent</i> |
| Kyle Baumbauer | Joint Appointment | School of Nursing (UConn) & Department of Neuroscience (UCH) | University of Kansas | 583,579 | 424,669 |
| Lauren Sansing | UConn Health | Immunology | Yale University | 582,140 | 3,858,567 |
| At least 8 others | Both campuses | Various departments | Various locations | 2,087,489 | 3,548,902 |
| Total Grant Funds Lost | | | | \$15,802,173 | \$20,747,358 |

6. How is UConn working on addressing high-cost items (or, items that could be self-supporting but currently have a net cost) other than fringe – especially athletics, particularly football? (Rep. Hall)

In general, UConn regularly examines its costs and opportunities to reduce them. Since FY16, UConn has sustained significant cuts to State Support, which have been addressed in a variety of ways including:

- Closed Torrington Campus
- 3%-5% annual cuts to academic departments in each of the last 4 years
- 100 layoffs at the end of FY16
- Merged UConn and UConn Health Fire and Police Departments in FY18 to save \$1M by reducing overtime, reducing FTE count, consolidating leadership, changes in service delivery, etc.
- Through a program called Spend Smart, over 200 initiatives were implemented by over 37 departments, schools/colleges and units totaling over \$29M in savings
- Centralized regional campus leadership, enrollment management, financial controls, HR, procurement, software systems and student services to Storrs
- Continually identifying expense reductions, revenue enhancements, cost avoidance and operational efficiencies
- Coordination, collaboration and consolidation between UConn and UConn Health ongoing

As shown in chart below, salary and fringe expenses comprise 57% of all expenses. Of the remaining 43%, student financial aid (13%) and the research fund (8%) comprise half, which leaves 22% of the budget for energy, equipment, debt service, and other expenses. Nearly \$1 out of every \$10 that we spend goes to unfunded liabilities, over which UConn has no control and receives no goods or services in return.

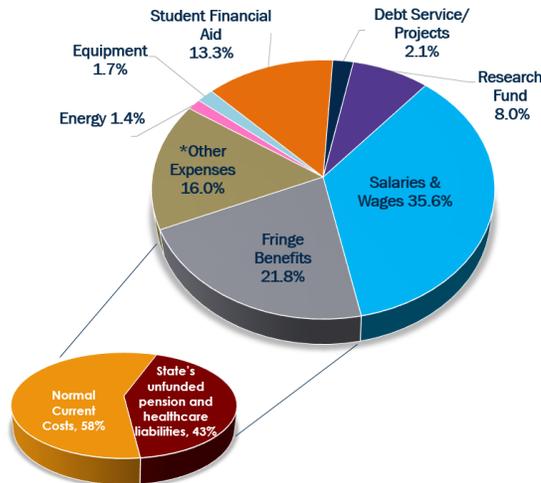
FY20 Expense by Category

Salary and fringe benefit costs are growing at a significant pace and account for over 57% of the University's operating budget

| Expenditures (\$M) | |
|-----------------------------|------------------|
| Salaries & Wages | 521.7 |
| Fringe Benefits | 318.7 |
| Other Expenses | 234.2 |
| Energy | 20.7 |
| Equipment | 25.5 |
| Student Financial Aid | 194.7 |
| Debt Service | 27.0 |
| Capital Projects | 4.2 |
| Total Operating Fund | \$ 1346.5 |
| Research Fund | 117.1 |
| Total Expenditures | \$ 1463.6 |

Note: Use of decimals may result in rounding differences

*Other Expenses includes dining services food and labor, lab supplies, janitorial services, facilities contracts, dues and memberships, travel, etc.



With regard to athletics, it is safe to say that UConn would not be where it is today without athletics. As we have all seen, the rapidly growing success of our men's and women's basketball programs beginning in the 1990s helped to vastly increase the number of Husky fans, creating greater affinity for the University throughout CT and the nation, and dramatically raising our visibility and reputation both in and outside of the state.

Our analysis shows that when UConn teams succeed, it enhances student quality, philanthropy, and out-of-state student applications.

- When the football team makes a bowl appearance, it is associated with an increase in applications (in-state and out-of-state), increase in the proportion of applications from out-of-state (44% increase out-of-state applications is greater than the increase in in-state applications), and the average SAT scores that apply and are admitted.
- On average, out-of-state applications rose 34% and 8% the year following women's and men's national championships, respectively.
- In terms of philanthropy, in the years following a men's national basketball championship, donations increased by 55%.
- When the women's basketball team wins a national championship, the number of donors to basketball specific funds increases by an average of 14 donors.

- When the field hockey team wins a national championship, there is a small increase in donations to field hockey related funds.
- The year after the baseball team reached the NCAA tournament, there was a 35% increase in the amount of dollars donated to baseball related funds.

Professor Brian Goff’s (2000) article, “Effects of University Athletics on the University: A Review and Extension of Empirical Assessment” states the following:

“Even for institutions with highly regarded academic reputations, many potential donors and potential students are more likely to become aware of, and interested in, the institution due to its participating in a major bowl game or the NCAA “Sweet Sixteen” than they are due to the work of a Nobel prize-winning chemist.” (p. 91)

UConn’s athletic department is subsidized just as the vast majority of NCAA Division 1 programs. In fact, USA Today’s 2018 report on athletic program funding shows that only 11 of the 230 programs generate profits without any subsidy from its university, and these are the most famous programs with well over \$100M in revenues.

The table below (from the USA Today’s FY18 report) shows that the average subsidy for programs in the AAC (the league we are currently in) is \$26M. Seen in this light, UConn’s \$40M subsidy is approximately \$14M more than the average for its conference, and this \$14M is linked directly to lost revenues from conference realignment and associated TV revenues.

| Rank in Total Revenues among 230 programs | Institution | Total Expenses | Total Allocated from University | Percent of Expenses Allocated from University |
|---|-----------------|---------------------|---------------------------------|---|
| 52 | Connecticut | \$80,905,645 | \$39,041,013 | 48% |
| 54 | Central Florida | \$61,118,971 | \$28,273,636 | 46% |
| 55 | Cincinnati | \$64,755,303 | \$29,238,740 | 45% |
| 58 | Memphis | \$55,462,505 | \$23,057,270 | 42% |
| 59 | Houston | \$57,106,913 | \$31,177,821 | 55% |
| 66 | East Carolina | \$47,410,809 | \$20,937,332 | 44% |
| 68 | South Florida | \$50,674,340 | \$23,966,690 | 47% |
| AAC Average | | \$56,088,140 | \$26,108,582 | 47% |

When we move to the Big East in Fall 2020, there will be immediate savings on the order of about \$2 million annually due to significantly reduced travel expenses for our teams. This is particularly true for football, which carries the largest number of players. They will be traveling regionally rather than half way across the nation (e.g., Florida, Tennessee, and Texas). Moreover, now that football is independent (the new Big East has no football), UConn will have opportunities to negotiate “guarantee” games where we are paid (\$1 to \$2M) to play a particular team. The move back to the Big East has generated excitement, as we are seeing a trend of increasing ticket sales that we expect will continue to increase – and we are seeing an increased interest in philanthropic giving.

7. **Provide UConn's innovation plan. (Sen. Hartley)**

The draft plan Technology and Innovation Plan is attached. It is expected to be discussed and voted on by the Board of Trustees this week.

8. **In recent years (e.g., for each of the last three years), what have been the metrics for tech transfers? How does this compare over time to annual research spending? (Rep. Dathan)**

The UConn 2000 Report Book 49 was submitted to the General Assembly in December 2019. The full report can be accessed here: <https://evpacfo.uconn.edu/wp-content/uploads/sites/2318/2020/02/UCONN-2000-Book-49-FINAL.pdf>

Information and updates on industry partnership, innovation and tech transfers begins on page 8. Some key charts are highlighted below.

Licensing and Commercialization

| | FY 2013 (Base) | FY 2014 | FY 2015 | FY 2016 | FY 2017 | FY 2018 | FY 2019 |
|--------------------------------|-------------------|---------|---------|---------|---------|---------|---------|
| Invention Disclosures Received | 71 | 59 | 93 | 69 | 61 | 71 | 90 |
| Patent Applications Filed | 95 | 86 | 113 | 91 | 89 | 83 | 105 |
| Patents Issued | 20 | 21 | 28 | 31 | 28 | 39 | 30 |
| Licenses & Options Executed | 19 | 22 | 10 | 11 | 10 | 26 | 21 |
| Licensing Revenue (\$M) | \$1.0 | \$1.7 | \$1.1 | \$1.0 | \$1.7 | \$0.9 | \$0.7 |
| Startup Companies Formed | 4 | 5 | 3 | 2 | 1 | 6 | 15 |

UConn vs. Peers FY13-17, normalized to \$100M research expenditures

| Institution | Invention Disclosures Received | Patent Applications Filed | Patents Issued | Licenses & Options Executed | Licensing Revenue (\$K) | Startup Companies Formed |
|---------------------------|--------------------------------|---------------------------|----------------|-----------------------------|-------------------------|--------------------------|
| University of Kansas | 31.5 | 16.7 | 12.2 | 13.4 | \$4,340.7 | 1.4 |
| University of Georgia | 42.0 | 11.9 | 10.9 | 41.5 | \$1,938.6 | 1.3 |
| University of Kentucky | 23.6 | 8.1 | 12.4 | 3.3 | \$1,556.2 | 1.8 |
| Average | 36.5 | 21.3 | 11.6 | 14.0 | \$1,490.9 | 1.9 |
| Indiana University | 41.2 | 20.4 | 8.4 | 8.5 | 1,346.8 | 1.9 |
| Purdue University | 54.0 | 29.9 | 17.3 | 20.3 | \$995.0 | 3.4 |
| Michigan State University | 24.0 | 8.4 | 7.2 | 10.6 | \$880.7 | 0.4 |
| UConn | 39.2 | 23.8 | 16.7 | 9.0 | \$660.3 | 2.0 |
| University of Delaware | 36.2 | 51.7 | 7.6 | 5.7 | \$208.9 | 3.0 |

Based on annual AUTM Survey Data

9. Please provide information on your plans to increase tech transfer? (HARTLEY)

UConn is implementing a plan consistent with PA 19-154 to address foundational issues impacting tech transfer with the adoption of new policies and practices. The plan development was informed by interviews with the top 20 institutions ranked in the 2017 Milken Institute performance assessment of tech transfer universities, a literature review and an in-person panel review with eight national technology transfer leaders. These efforts indicated specific requirements for sustained long-term growth and are reflected in the plan's detailed Action Plan. However, it must be made clear that UConn does not currently have the funding to implement the entirety of this plan. While new resources will be required for full implementation, we will move forward where resources exist to do so.

Throughout the plan we emphasize student entrepreneurship, faculty entrepreneurship, research grants that translate into the commercialization of technology, industry collaboration, and engagement in regional economic development. We also build on the growing number of existing activities supporting innovation and entrepreneurship at UConn and leverage our relationships with leading global research universities. It is our intent to regularly utilize quantitative and qualitative factors to assess the value of UConn innovative activities. The outcomes of our assessment will determine the success of our policies and practices and allow for adjustments should the assessment indicate the plan has not yielded the desired results. The plan includes specific metrics to be used in the assessment process.

The Association of Public and Land Grant Universities designates selected institutions as Innovation and Economic Prosperity (IEP) Universities. Of the 241 member institutions of the APLU, only 59 have received the IEP designation. While not a ranking, *per se*, the APLU designation is granted to "institutions that have demonstrated a meaningful, ongoing and substantial commitment to economic and community development, growth, and economic opportunity" and represents a holistic view of the value and success of a university's technology transfer and venture development efforts. At UConn, we found this process to be informative and aspirational. For this reason, we have aligned our action plan with the four key IEP categories: *culture, champions, incentives, and collaboration*. This long-term plan will allow us to ultimately seek this elite designation.

It is worth noting that while we recognize the value to be gained from continuous improvement, UConn is already receiving recognition for its efforts. UConn was recently ranked #46 by the Princeton Review for its undergraduate programs in entrepreneurship –quite impressive given that it was only the second year the University participated in the survey. UConn ranked 90th in Reuters Top 100: The World's Most Innovative Universities; based on patents filed, success rate of patents and commercial impact

10. Please provide a trend analysis of how you compare to peers in terms of tech transfer? (DATHAN)

See tables in Question #8 for trend and comparisons with peers.

Research

For FY13-FY17, UConn is the second lowest in research expenditures of the Peers, only exceeding the University of Delaware. Doubling research in the next decade is one of President Katsouleas' goals as he recognizes the direct correlation between research, societal and economic benefits.

Inventions

Of our peers, only Purdue exceeds the average and the median of the Icons with 54 disclosures per \$100 Million in research expenditures. Only UConn, Indiana University, the University of Georgia, and Purdue University exceed the average and the median for the Peer Group with 39, 41, 42, and 54 average annual disclosures received per \$100 Million in research expenditures, respectively. UConn's invention disclosure yield is just below the standard technology transfer measure of one invention disclosure per \$2.5 million in research expenditures, producing 70.6 disclosures as compared to the 72 expected based on its research expenditures for FY13-FY17. UConn exceeds four members of the Peers in invention disclosure yields relative to the standard measure.

Patents

When normalized to \$100 Million in research expenditures, UConn is second only to Purdue University among the Peers for the average number of patents issued annually during the FY13-FY17 period. UConn also exceeds the output of several universities recognized as leaders in technology transfer, such as Arizona State University, Columbia University, Johns Hopkins University, and the University of Pennsylvania.

Despite its excellent performance in patents issued relative to the peers and several iconic technology transfer institutions, UConn's patent expenditures as a percentage of its research expenditures in FY13-FY17 is below the average and median of the Peers and only half of the average and median of the icons (data not shown in chart above).

Licenses

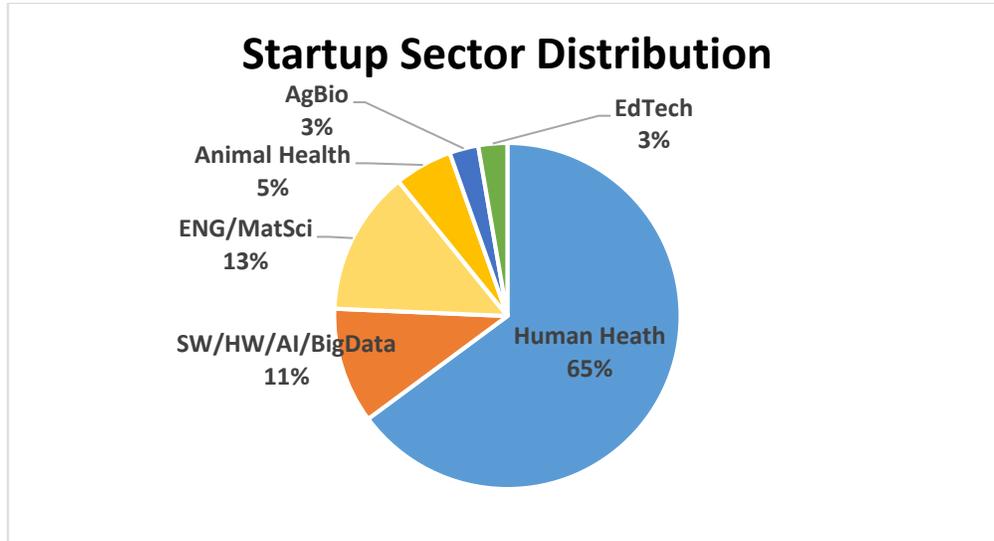
UConn is the fourth highest amongst the peers in the annual number of licenses and options executed per \$100 million in research expenditures in FY13-FY17. UConn exceeds two iconic technology transfer institutions, Massachusetts Institute of Technology (MIT) and Johns Hopkins University, in license and options executed per \$100 million in research expenditures in FY13-FY17.

UConn has the second-lowest normalized license revenue levels of the Peers for FY13-FY17, exceeding only the University of Delaware. UConn performs below both the average and the median for the Peers, as do Michigan State University and Purdue University.

Startups

UConn exceeds both the average and median of the Peers in the annual number of startups formed (as defined in the AUTM Annual Licensing Survey) per \$100 Million in research expenditures in FY13-FY17, ranking third. Of note, when normalized to \$100 Million in research expenditures, UConn outperforms Johns Hopkins University and MIT, which is known for its proliferation of startup companies.

11. Please let us know which industries the startups are in? (DATHAN)



ENG/MatSci: Engineering and Material Sciences

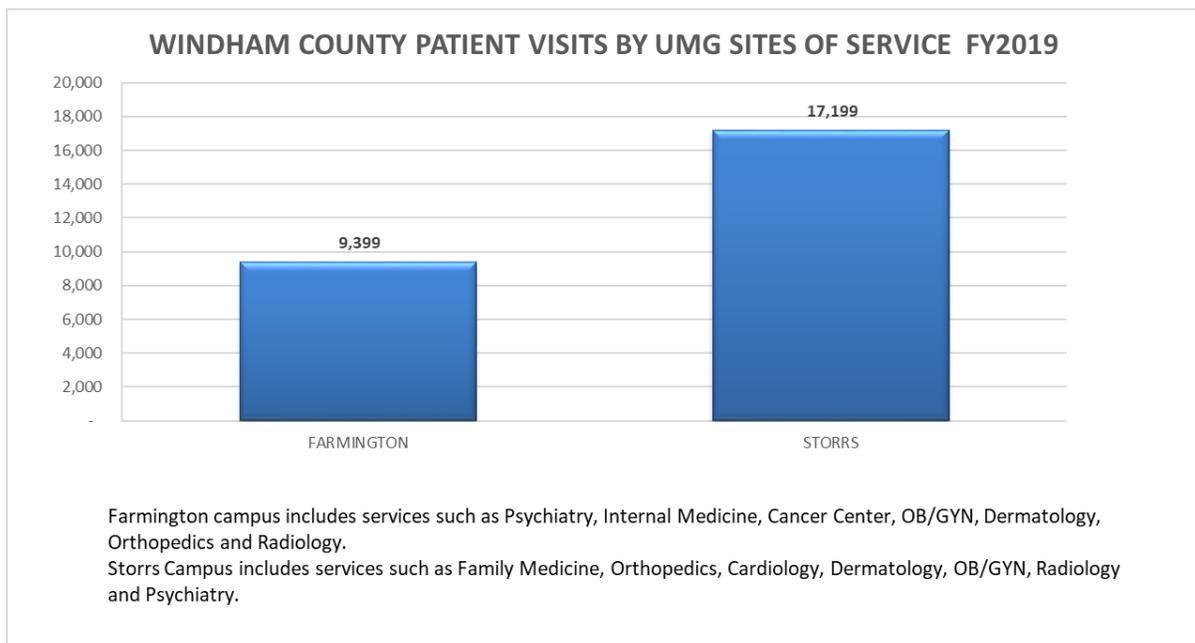
SW/HW/AI/BigData: Software, Hardware, Artificial Intelligence, Big Data

AgBio: Agriculture, Nutrition and Plant Sciences

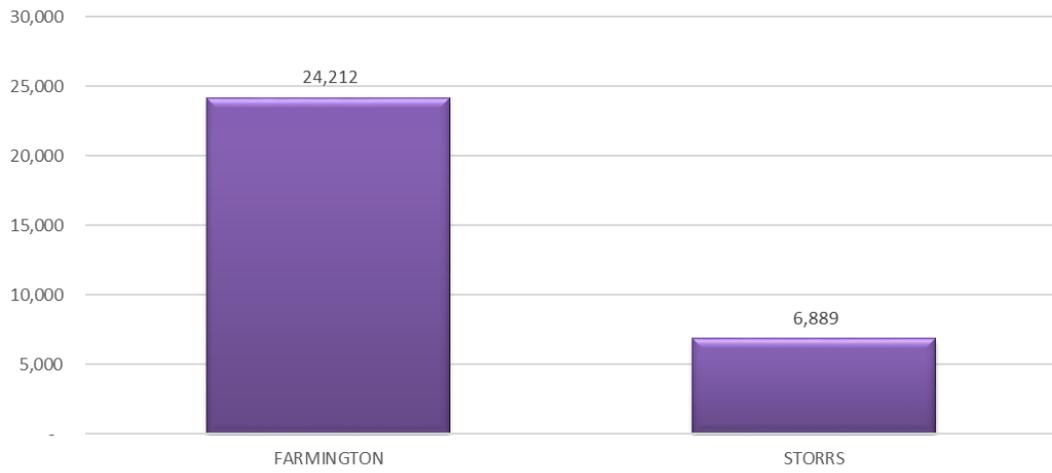
EdTech: Educational Technology

UCONN HEALTH

12. Can you describe what clinical services are provided to patients from Northeastern CT towns? (FLEXER)



WINDHAM COUNTY PATIENT VISITS BY JDH SITES OF SERVICE FY2019



Farmington Campus includes services such as Radiology, Physical Therapy, Occupational Therapy, Emergency Department and Labs.
Storrs Campus includes services at the Urgent Care.