



Annual Report 2019-2020

Welcome to the 1st *FIRST* in Upper Midwest annual report. If you're reading this, hopefully, you have an interest in how the *FIRST* Robotics Competition program is run locally *and* in making it better and more sustainable. As an overview, there are 3 major players in our area – *FIRST* employees, regional planning committees, and FUM. The new entity is FUM and this report focuses on its initiatives – post season competitions, the Competitive Robotics Hubs, Diversity & Inclusion, and team sustainability. FUM was initiated to involve more *FIRST* community members and set the stage for the orderly transitions of the local activities that provide so many opportunities for students. The organizational structure, a 501(c)(3) with a board of directors, was chosen to create a fiscal nonprofit that can accept and spend monies. Activity committees direct the various FUM programs. As the committees gain members and evolve, you'll hear the name FUM more and more (and less from me). Hopefully, you agree this is a good thing but, to make it work, we need more *FIRST*ers to step forward and take on responsibilities for these activities.

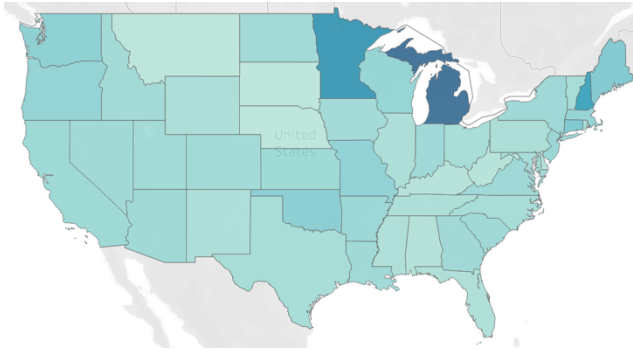
Stay safe,

Mark Lawrence

Chairman, MN *FIRST* Regional Planning Committee



FIRST ROBOTICS COMPETITION mentors are nominated by their teams for the Woodie Flowers Finalist Award. *FRC* Mentors still active with their teams or as event volunteers are asked to serve on the *FUM* Nominating Committee.



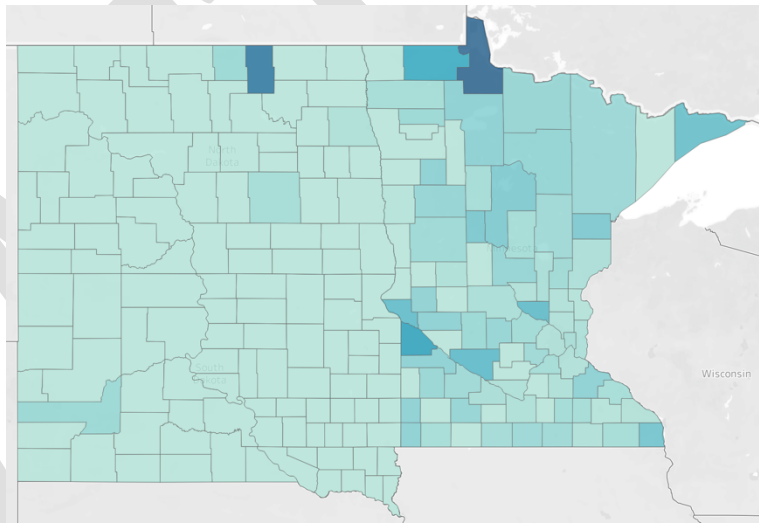
With a combined 231 *FIRST* Robotics Competition teams in the 2020 competition season, the Minnesota/North Dakota/South Dakota region ranked 4th nationally in teams-per-capita, with an average of one team per ~31.5 thousand people.

Minnesota accounts for 224 of those teams, representing one team per ~25,000 people, ranking second nationally, only behind Michigan.

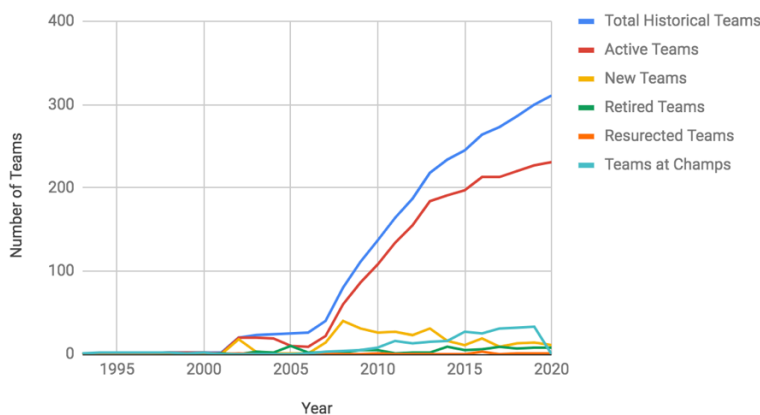
With 188 FRC teams in the 7-county Twin Cities metro area, there is a large concentration of teams. However, over 50 other counties topped the metro area on a per-capita basis.

With four teams in Lake County, MN, it comes in at the top with one team per ~935 people! Towner County, ND isn't far behind, with one team per ~1,094 people!

Despite these impressive numbers, there's still room for *FIRST* Robotics Competition program growth, with 113 counties without a team.



Team-Based Statistics



The 2020 season saw continued growth and stability in the region. For the 13th year in a row, the FRC team retention rate from the previous year exceeded that of *FIRST* as a whole, with 96% of teams returning.

Although the 2020 season was cut short due to Covid-19, 159 teams in the region competed before events were cancelled in mid-March.

How *FIRST* in Upper Midwest fits in

The FRC (*FIRST* Robotics Competition) ecosystem is a complicated one, and a common question is why another organization is needed. FUM was created to perform these functions:

- Continue many informally managed FRC supporting activities, moving them out of individual checkbooks and into an organization controlled by the local FRC community. These activities include the off-season event program, MSHSL State Championship, kickoff site identification and coordination, and regional event volunteer training.
- Create a local non-profit that could be used to run special projects, with the ability to raise charitable donations as a 501(c)(3) nonprofit.
- Provide shared services to *FIRST* regional planning committees, hubs, and other coalitions.

Continuity and succession planning were key goals in setting up FUM. We wanted to make sure that we developed the next generation of leaders so that they are ready to step in.

At the same time, we need to work hard to make sure there's not duplication of effort. FUM has to work closely with all of the FRC partners in the region, including *FIRST*, the Minnesota State High School League (MSHSL), Regional Planning Committees, community hubs, sponsors, volunteers, alumni, and individual teams.



Volunteers form the core of FIRST, mentoring/coaching teams, running competitions, hosting events, and other activities!

2019-2020 School Year Activities and Deliverables

In the table below, we've listed the major ongoing activities and deliverables of FUM. Sections with an (*), see additional information below.

Area	FUM support	FUM Leaders
HS Activities – MSHSL, Conferences, State Tournament	<ul style="list-style-type: none"> • Staff the field and pit operations for the State Tournament • Manage State Tournament rules • Maintain State Tournament rankings • Manage State Tournament invitation process • Provide official <i>FIRST</i> field for use during State Tournament • Manage relationship between <i>FIRST</i> and MSHSL 	Laurie Shimizu, Bryan Herbst, Mark Lawrence, Steve Peterson, Jon Stratis
Alumni	<ul style="list-style-type: none"> • Promote connections between alumni via social activities • Provide support for alumni-generated ideas, including fundraising and volunteer support 	Board members
Teams – Students, Mentors	<ul style="list-style-type: none"> • Promote local training workshops for teams • Connect mentors and teams 	Board members
Local Hubs and Competitive Robotics Hubs*	<ul style="list-style-type: none"> • Promote regional support ecosystem for teams, including practice facilities 	Board members
<i>FIRST</i> Field Operations Staff	<ul style="list-style-type: none"> • Maintain local connection with <i>FIRST</i> staff (Regional Director, Field Operations Director, <i>FIRST</i> Senior Mentor) • Provide input on issues unique to the Minnesota, North Dakota, and South Dakota area 	Board members
Sponsors	<ul style="list-style-type: none"> • Connect potential sponsors to the Regional Planning Committees • Manage grants from sponsors for local use 	Board members

<p>Off-Season Competitions: Off-season event organizers, event volunteers</p>	<ul style="list-style-type: none"> • Provide official <i>FIRST</i> field equipment and technical support for off-season events • Store and maintain shared equipment • Organize on-the-job training for event volunteers at off-season events • Direct individuals to Volunteer Coordinators and specific volunteer opportunities • Provides support services (e.g., web site support) for FRC regional planning committees 	<p>Bryan Herbst, Mark Lawrence, Laurie Shimizu</p>
<p>Organizational support</p>	<ul style="list-style-type: none"> • Accounting services • Form 990 filings 	<p>Steve Peterson</p>
<p>Diversity and Inclusion*</p>	<ul style="list-style-type: none"> • Advocate to make FRC more accessible, diverse, inclusive and equitable • Work to remove barriers to participation of underrepresented students, mentors and volunteers • Disseminate best practices for <i>fostering, cultivating and preserving a culture of equity, diversity and inclusion</i> • Serve as a diversity and inclusion resource 	<p>FUM Diversity and Inclusion Committee</p>

A common question we get when people see this list of activities is “many of these activities occurred prior to FUM. Why do we need FUM to be involved?” We need to plan for the day when the current leaders of these activities are no longer involved in the program. Ensuring the long-term continuity of the program requires an organization to ensure that these activities continue and grow.

FUM Initiatives

Diversity and Inclusion Committee

The FUM Diversity and Inclusion Committee focused over the past year on identifying areas of focus and resources that teams could use to assess team and community diversity. The committee will be focusing on supporting teams and the FUM community in the areas of demographics, recruitment, retention and team/program climate. We will be developing an online set of resources, beginning with access to tools that we have identified for determining team and community demographics so that teams can establish specific goals around increasing student and mentor/coach diversity. We will also be seeking community input to collect resources focused on student recruitment and retention through community surveys and meetings.



Diverse volunteers and mentors lead the way towards diverse teams!



FRC teams welcome everyone, providing all participants with an opportunity to engage in all aspects of the team!

If you are interested in facilitating the increased participation of students, mentors and volunteers from underserved and underrepresented groups, and fostering a welcoming climate of inclusion that supports the success of all people in the FRC program, please consider joining the Diversity and Inclusion Committee. You can complete a short application [here](#). If you have questions, contact Yoji Shimizu at yoji.shimizu@firstuppermidwest.org. We welcome all members of the FUM community to join us, including current FRC students. We are particularly seeking individuals from underserved and underrepresented groups, FRC alumni, and community members from greater Minnesota to join us.

Off-season Competitions Committee

The off-season competitions committee began organizing last year to formalize and simplify the process of sharing an FRC field with our teams during the summer and fall months. All of our summer and fall events from the Gitchi-Gummi Get Together in Duluth to the Minne Mini Regional in Prior Lake share a field that FUM borrows from FRC headquarters every year. Mark Lawrence historically managed the transportation and storage of this field along with all the costs associated with doing so, and we have been transitioning those responsibilities to FUM and the off-season event committee. The



Trophies earned by teams at the Gitchi Gummi Get Together



Many FIRST Robotics Alumni return as mentors and event volunteers, and are a critical part of FRC

committee has been working to create a standardized process for borrowing the field which will make it easier to add additional events in the future, will simplify the role of our event hosts by enabling us to do bulk purchases of supplies such as tape and zip ties, and will open the door to enhancements to our events such as radios for event staff in the future. Although COVID-19 put a halt to off-season events in 2020, the committee is eagerly awaiting FIRST's direction on 2021 events so it can begin working with event hosts to bring your favorite Minnesota events back next year.

Competitive Robotics Hubs

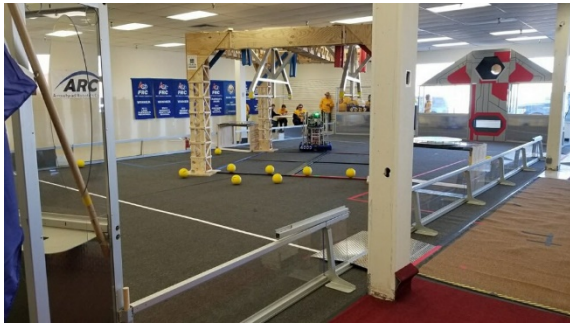
Ordinarily, in the first year of a nonprofit you would not choose to execute a complicated special project that requires dozens of volunteers, government contracts, a complicated Request for Proposals project, and financing a six-figure equipment purchase. That opportunity came to FUM last summer, through the work of a coalition of teams led by FRC Team 1816, “The Green Machine”. This coalition successfully convinced the Governor and Legislature to begin funding a network of Competitive Robotics Hubs. What is a Competitive Robotics Hub (CRH)? While the model varies a bit in each area, Competitive Robotics Hubs are facilities that combine a practice field with other support for teams in a regional area.



Teams practicing at the Arrowhead Robotics Coalition CRH field

FUM activities to support the CRH project include:

- Negotiating a contract with the Minnesota Department of Employment and Economic Development
- Developing a Request for Proposals process for groups considering creating a CRH
- Convening a community-based group to review CRH proposals and make selections
- Negotiating contracts with each of the selected CRH groups
- Collecting required data from each of the CRH groups and providing reports to the state
- Negotiating a discounted price for five field borders with AndyMark
- Managing cost-efficient delivery of the fields from AndyMark to the five CRH groups



Another look at the ARC field, the first one to be operational in Minnesota.

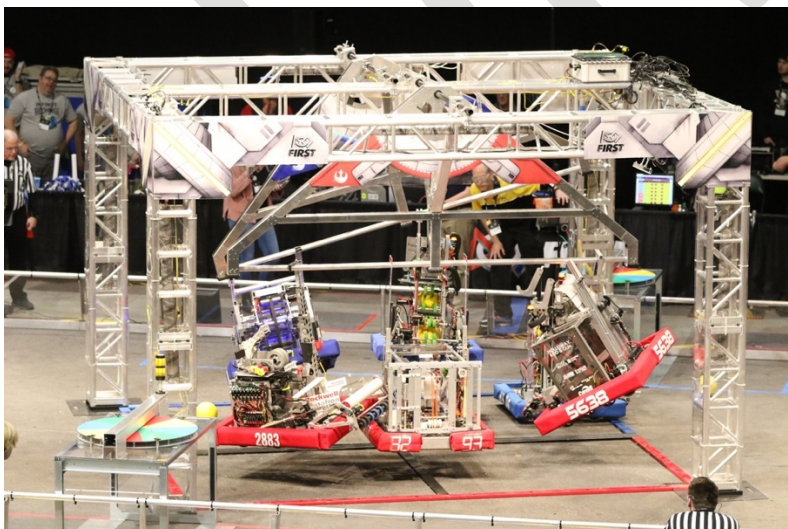
This complicated project was led by board member Gene Jasper and leveraged board member knowledge of government contracting, RFP processes, community involvement, and logistics. The project created five facilities: Central MN Robotics Hub, Byron Public Schools / Byron Robotics, Arrowhead Robotics Coalition, Minneapolis Urban Robotics Alliance, and Hmong College Prep Academy.

How to get involved with FUM

1-As a FUM Board Member. The FUM Nominating Committee is an independent committee of the FUM Board of Directors, and actively recruits candidates for Director positions. The Nominating Committee is led by FUM Board of Directors Chair Steve Peterson; Vice Chair, Jane Peterson, and volunteers Evan Hochstein and Kelli Aellen. Membership on the Nominating Committee is open to Woodie Flowers Finalist Award winners who are active mentors of teams and/or are active FRC volunteers for events in Minnesota, North Dakota, or South Dakota. Jane Peterson is the contact for the Nominating Committee. Her email is jane.peterson@firstuppermidwest.org.

2-Volunteer for a committee. FUM Committees support the *FIRST* Robotics Competition program outside of the event-specific duties of local regional planning committees. Volunteers are needed to help design and implement initiatives that will support and grow *FIRST* Robotics in our region. Contact Jane Peterson, jane.peterson@firstuppermidwest.org to get involved today!

3-Volunteer as a Team Mentor. There are *FIRST* Robotics Competition Teams that need help from adult volunteers. Check out the newly-launched *FIRST* Mentor Network (<https://info.firstinspires.org/mentor-network>) to create your profile and find a match with a *FIRST* Robotics Competition team. Individuals interested in a particular team or specific area, please contact Ken Rosen, Minnesota Regional Director, krosen@firstinspires.org.



Three teams performing a "level hang" at the end of an "Infinite Recharge" match – climbing onto the bar, and balancing their weight so it remains level.

Financial Statements

Presented below are the unaudited financial statements of *FIRST* in Upper Midwest, Inc, as of June 30, 2020.

Statement of Financial Position June 30, 2020

	Total
ASSETS	
Current Assets	
Bank Accounts	
1000 Cash	
1001 US Bank Checking	\$ 13,811.62
Total 1000 Cash	\$ 13,811.62
Total Bank Accounts	\$ 13,811.62
Accounts Receivable	
1100 Accounts Receivable	\$ 7,197.50
Total Accounts Receivable	\$ 7,197.50
Total Current Assets	\$ 21,009.12
TOTAL ASSETS	\$ 21,009.12
LIABILITIES AND EQUITY	
Liabilities	
Current Liabilities	
Accounts Payable	
2000 Payables	\$ 0.00
Total Accounts Payable	\$ 0.00
Total Current Liabilities	\$ 0.00
Total Liabilities	\$ 0.00
Equity	
3000 Unrestricted Net Assets	\$ -757.00
Net Revenue	\$ 21,766.12
Total Equity	\$ 21,009.12
TOTAL LIABILITIES AND EQUITY	\$ 21,009.12

Statement of Activity July 1, 2019 to June 30, 2020

Revenue	
4000 Revenue from direct contributions	
4010 Individual/small business contributions	\$ 3,084.50
4020 Corporate contributions	\$ 9,077.68

Total 4000 Revenue from direct contributions	\$ 12,162.18
4100 Donated goods & services revenue	
4130 Donated use of facilities	\$ 12,000.00
Total 4100 Donated goods & services revenue	\$ 12,000.00
4200 Revenue from non-government grants	
4250 Nonprofit organization grants	\$ 12,500.00
Total 4200 Revenue from non-government grants	\$ 12,500.00
4500 Revenue from government grants	
4530 State Grants (Restricted)	\$ 95,000.00
Total 4500 Revenue from government grants	\$ 95,000.00
5100 Revenue from program-related sales & fees	\$ 6,487.50
5180 Program service fees	\$ 12,000.00
Total 5100 Revenue from program-related sales & fees	\$ 18,487.50
5300 Revenue from investments	
5310 Short term investments	\$ 5.05
Total 5300 Revenue from investments	\$ 5.05
5400 Revenue from other sources	
5499 Uncategorized Income	\$ 0.01
Total 5400 Revenue from other sources	\$ 0.01
Total Revenue	\$ 150,154.74
Gross Profit	\$ 150,154.74
Expenditures	
7000 Grants, Contracts & Direct Assistance	
7010 Contracts - program-related	\$ 107,500.00
Total 7000 Grants, Contracts & Direct Assistance	\$ 107,500.00
8100 Nonpersonnel expenses	
8110 Supplies	\$ 563.75
8140 Shipping and postage	\$ 6,080.00
Total 8100 Nonpersonnel expenses	\$ 6,643.75
8200 Facility and equipment expenses	
8210 Rent, parking, other occupancy	\$ 12,000.00
Total 8200 Facility and equipment expenses	\$ 12,000.00
8500 Other expenses	
8520 Insurance - non-employee	\$ 2,194.87
8560 Outside computer services	\$ 50.00
Total 8500 Other expenses	\$ 2,244.87
Total Expenditures	\$ 128,388.62
Net Operating Revenue	\$ 21,766.12
Net Revenue	\$ 21,766.12

Notes to financial statements

1. Financial statements are prepared on an accrual basis.
2. Donated use of facilities income and Rent, parking, and other occupancy expense represented the estimated value of donated storage for the forward deployed FRC field.
3. Nonprofit organization grant revenue represents contributions by the Competitive Robotics Hubs grantees for a portion of the field perimeter and shipping cost.
4. Program service fee income represents cost-sharing for use of the forward deployed FRC field.
5. Contracts-program related costs represent expenses associated with the Competitive Robotics Hubs project.
6. Supplies, shipping, postage, and insurance represent expenses primarily associated with the forward deployed FRC field.