

# NONPROFIT INVESTOR

## INDEPENDENT RESEARCH FOR PHILANTHROPY

### FIRST

Nonprofit Investor Rating:

**BUY**

#### Mission Statement

Inspire young people to be science and technology leaders, by engaging them in exciting mentor-based programs that build science, engineering and technology skills, that inspire innovation, and that foster well-rounded life capabilities including self-confidence, communication, and leadership

#### Financial Overview

*\$ in MM, Fiscal Year Ended June 30th*

	<u>2009</u>	<u>2010</u>	<u>2011</u>
Revenue and Support	\$34.7	\$35.0	\$41.3
Expenses	\$34.2	\$32.9	\$40.0
% of Total:			
Program Expenses	90.0%	87.6%	88.0%
Management and General	8.0%	9.7%	10.2%
Fundraising	2.0%	2.7%	1.7%

**Year Founded:** 1989

#### Contact Details

FIRST  
200 Bedford St.  
Manchester, NH 03101  
(603) 666-3906

<http://www.usfirst.org/>

EIN: 22-2990908

**Analyst:** A. Lee

**Peer Review:** R. Yen, N. Bhartiya

#### Publication Date

August 6th, 2012

#### SUMMARY

Founded in 1989, FIRST is a 501(c)(3) not-for-profit organization that helps young people discover and develop a passion for science, engineering, technology, and math through its innovative, progressive programs.

#### STRENGTHS

▲ **Strong program growth.** Participation in FIRST programs has increased considerably over the years. FIRST's four main programs have exhibited consistent year-over-year growth both in terms of program budget and the number of participants.

▲ **Extensive network of supporters.** FIRST has developed and maintained a comprehensive network of sponsors and supporters including corporations, government agencies, educational and professional institutions, foundations, and individuals.

▲ **Significant positive impacts on participants.** FIRST programs have made noteworthy influence on youths from ages 6 to 18, not only in cultivating interests in science and technology but also in developing important business and life skills. According to FIRST's annual reports, 100% of its participants had a meaningful learning experience.

#### CAUTIONS

● **Increasing management and general expenses.** Management and general expenses continued to grow at a double-digit rate. Despite the decrease in total expenses per participant, management and general expenses grew 16.6% in 2010 and 28.3% in 2011. As a percentage of total expenses, management and general expenses were 10.2% in 2011, compared to 9.7% in 2010 and 8.0% in 2009.

● **Unclear trend in "total expenses per participant metric".** After a decrease in 2010, the "total expenses per participant" metric saw a small increase in 2011.

#### RECOMMENDATION: BUY

FIRST has proven to be successful in meeting its goals of helping young people develop interests in science, technology, engineering, and math through its engaging and educational robotic programs. These programs have made positive impacts on the participating students, schools, teachers, and mentors. NPI highly recommends considering a monetary donation, volunteering for one of FIRST's programs, and/or becoming a sponsor of FIRST.

## OVERVIEW OF FIRST'S ACTIVITIES

Founded in 1989, FIRST is a 501(c)(3) not-for-profit organization that helps young people discover and develop a passion for science, engineering, technology, and math through its innovative, progressive programs. For the 2010/2011 season, 248,000+ students (a 17% increase since the 2009/2010 season) from 50 states across the US and from more than 60 countries participated in the organization's programs. For the 2011/2012 seasons, the number of students participating in FIRST programs is expected to grow to 293,000+.

With an annual budget of \$40 million, FIRST offers four main programs to young people from ages 6 to 18. Students not only learn engineering and program concepts but also gain important business skills such as creating a business plan, developing a budget, forming a company, marketing a product, raising funds, and obtaining patents.

Below lists the four core robotic programs FIRST offers:

### FIRST Robotic Competition (FRC) – ages 14 through 18 (84% of 2011 Program Expenses)

FRC is FIRST's largest and oldest program. Teams of 25 students or more are challenged to raise funds, design a team brand, hone teamwork skills, and build and program an up-to-150 pound robot in six weeks from a common kit of parts to perform prescribed tasks against a field of competitors. Students work alongside professional engineers and develop project management, programming, teamwork, and strategic thinking skills.

### FIRST Tech Challenge (FTC) – ages 14 through 18

FTC is FIRST's newest program. Teams of up to 10 students develop strategy, design, build, and program a robot using a reusable, modular kit of parts based on engineering principles. Students learn to apply real-world math and science concepts and develop strategic problem-solving, organizational, and team-building skills.

### FIRST LEGO League (FLL) – ages 9 through 16

In FLL, teams build autonomous LEGO-based robots that perform a series of missions and create innovative solutions to real-world challenges. Students develop career and life skills including critical thinking, time management, collaboration, and communication.

### Junior FIRST LEGO League (Jr. FLL) – ages 6 through 9

In Jr. FLL, teams design and construct models using LEGO bricks and moving parts and present their research journey on posters. Students practice presentation skills and discover real-world math and science.

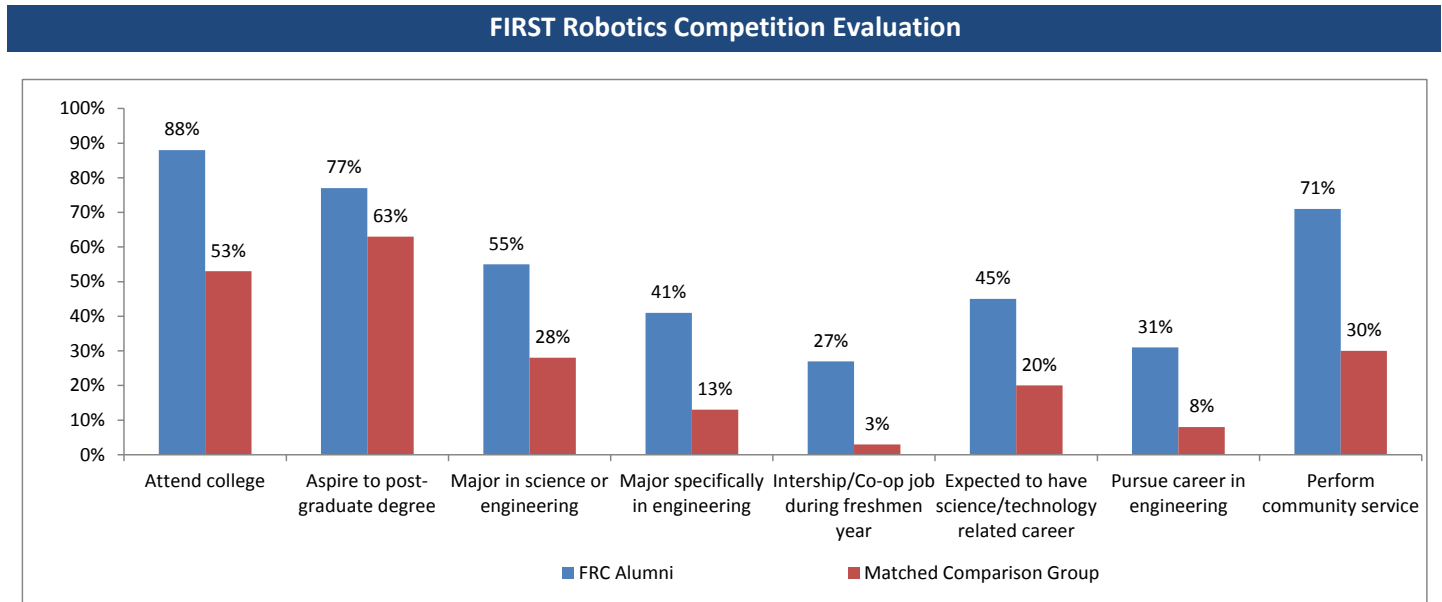
## PROGRAM RESULTS AND EFFECTIVENESS

FIRST Robotics Competition (83% of total program expenses) has grown from 28 teams at its inception in 1992 to an expected 2,343 teams in 2012, and is projected to reach over 58,000+ high school students in 2012 alone. FIRST Tech Challenge (4% of total program expenses) is expected to reach over 21,000 high school students in the 2011/2012 season, a 31% increase over the 2010/2011 season. FIRST LEGO League is expected to have 198,000 students from over 50 countries participating in the 2011/2012 season, up from 167,000 students in the 2010/2011 season. Junior FIRST LEGO League will expand to 2,600 teams in the 2011/2012 season.

For the 2010/2011 season, over 90,000 mentors, coaches, and volunteers have contributed a total of 7 million hours to FIRST. Mentors and coaches are often professional engineers. Additionally, the organization is supported by a network of 3,500+ sponsors including corporations, foundations, and educational and professional institutions. According to the

organization’s website, for the 2011/2012 season, 153 scholarship providers are making available a total value of close to \$15 million in scholarship opportunities to FIRST students.

According to recent independent studies conducted by Brandeis University’s Center for Youth and Communities, FIRST alumni attended college at a rate substantially higher than the national average for graduated high school students. When compared to a peer group of non-FIRST participants with similar demographic and academic experiences, FIRST alumni were much more likely to major in science or engineering, have an internship in their freshman year, achieve a postgraduate degree, and pursue a career in science, technology, or engineering. The chart below illustrates some of the positive education and career outcomes associated with participation in FIRST programs based on the comparison group analysis.



Source: “An Evaluation of the FIRST Robotics Competition Participant and Institutional Impacts” by Center for Youth and Communities at the Heller School for Social Policy and Management of Brandeis University

## TRANSPARENCY

FIRST provides detailed financial information through its annual reports from 2003 through 2011 on its website. The audited financial statements for fiscal year 2010 and 2011 are also made available on the organization’s website. FIRST files a Form 990 with the IRS on an annual basis, although the forms are not available on the organization’s website. FIRST also provides copies of independent research studies and program evaluations conducted by Brandeis University’s Center for Youth and Communities on its website. In addition to these studies, FIRST provides results and impact of its programs regularly and consistently on its annual report, including number of participants, number of volunteer hours, number of robots constructed, percentage of participants who have a meaningful learning experience with FIRST programs, and other important performance metrics.

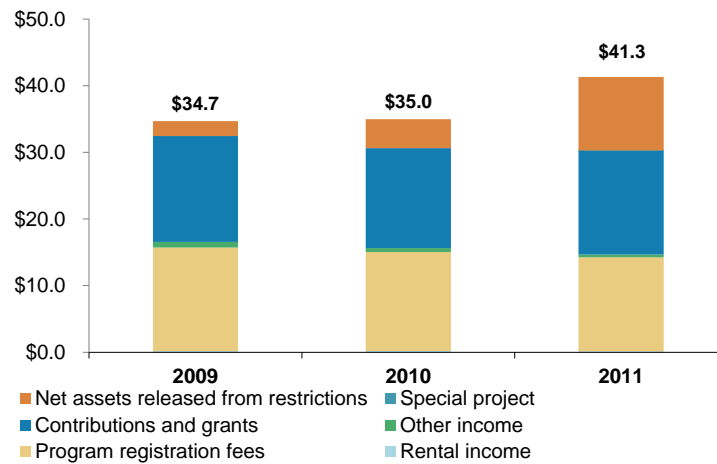
## FINANCIAL OVERVIEW

### REVENUE

FIRST has healthy cash reserves and good financial security. Because its programs are not self-sustainable, the organization depends largely on grants and contributions to fund these programs. FIRST has a diverse and supportive donor base, with total contributions not influenced by any particular individual donor.

While revenue growth had slowed down in prior years, revenue in 2011 grew 18% from 2010. A large portion of that increase is attributable to release of restricted contributions and grants. Program registration fees as well as contributions and grants stayed relative flat in 2011. One third of the \$15.6 million contributions and grants are promises to give recorded as pledge receivables and revenue.

### Revenue Breakdown (\$ in MM)



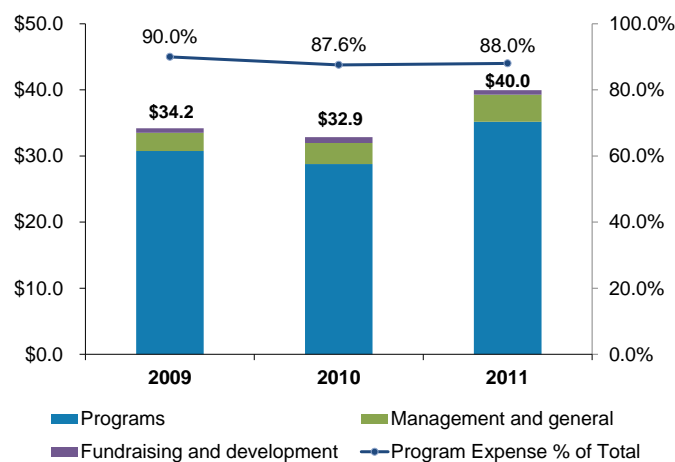
### EXPENSES

Program expenses were 88.0% of total expenses in 2011, compared to 87.6% in 2010 and 90.0% in 2009. While program expenses stayed relatively flat, management and general expenses as a percentage of total expenses increased from 9.7% to 10.2%. Fundraising expenses as a percentage of total expenses decreased from 2.7% to 1.7%.

In 2011, total expenses increased by 22% from the prior year due to higher program expenses and higher management and general expenses. The increase in these expenses was likely driven by growing program participants and costs associated with additional staff. According to the IRS 990 forms, the total number of employees increased from 94 people in 2010 to 105 people in 2011.

Total expenses per participant were \$174 in 2009 and \$155 in 2010 to \$161 in 2011. At the program level, expenses per participant follow a similar trend. Without more detailed data on the “expenses per participant” metric for each individual program, we are unable to conclude whether the overall decreases in total expenses per participant indicate improved operating efficiency.

### Expenses Breakdown (\$ in MM)



## Detailed Financial Information

Fiscal Year Ended June 30th

	2009	2010	2011	<u>Source:</u>
<b>Revenue and expenses (GAAP accounting basis)</b>				
Revenues and other support				
Program registration fees	\$15,535,666	\$14,843,617	\$14,074,525	<i>Audited financial statements (GAAP) and annual reports</i>
Contributions and grants	15,900,906	14,976,448	15,615,389	<i>Audited financial statements (GAAP) and annual reports</i>
Rental income	175,629	195,152	158,845	<i>Audited financial statements (GAAP) and annual reports</i>
Other income	842,874	609,300	429,425	<i>Audited financial statements (GAAP) and annual reports</i>
Special project	0	0	25,017	<i>Audited financial statements (GAAP) and annual reports</i>
Net assets released from restrictions	2,231,912	4,347,633	11,007,189	<i>Audited financial statements (GAAP) and annual reports</i>
<b>Total support and revenues</b>	<b>\$34,686,987</b>	<b>\$34,972,150</b>	<b>\$41,310,390</b>	
<i>% Growth</i>	9%	0.8%	18.1%	
<b>Expenses:</b>				
FIRST Robotics Competition	\$25,259,844	\$23,313,034	\$29,310,219	<i>Audited financial statements (GAAP) and annual reports</i>
FIRST LEGO League and Junior FIRST Lego League	3,714,529	3,835,473	3,989,305	<i>Audited financial statements (GAAP) and annual reports</i>
FIRST Tech Challenge	1,169,372	1,132,089	1,301,130	<i>Audited financial statements (GAAP) and annual reports</i>
FIRST Place	145,855	89,192	110,022	<i>Audited financial statements (GAAP) and annual reports</i>
General, administrative and supporting services	3,382,414	3,893,127	4,677,870	<i>Audited financial statements (GAAP) and annual reports</i>
Operation of building	160,420	211,576	192,786	<i>Audited financial statements (GAAP) and annual reports</i>
Depreciation	348,288	386,744	382,435	<i>Audited financial statements (GAAP) and annual reports</i>
<b>Total expenses:</b>	<b>\$34,180,722</b>	<b>\$32,861,235</b>	<b>\$39,963,767</b>	
<i>% of revenue</i>	98.5%	94.0%	96.7%	
<b>Revenue less expenses</b>	<b>\$506,265</b>	<b>\$2,110,915</b>	<b>\$1,346,623</b>	
Refundable advances - amortization	319,968			<i>Audited financial statements (GAAP) and annual reports</i>
<b>Change in unrestricted net assets</b>	<b>\$826,233</b>	<b>\$2,110,915</b>	<b>\$1,346,623</b>	
<b>Cash flows from operating activities</b>	<b>na</b>	<b>\$5,462,152</b>	<b>\$2,130,990</b>	<i>Audited financial statements (GAAP) and annual reports</i>
<b>Expenses by function (GAAP accounting basis)</b>				
Programs	30,762,650	28,772,602	35,175,437	<i>Audited financial statements (GAAP) and annual reports</i>
Management and general	2,734,458	3,187,842	4,090,136	<i>Audited financial statements (GAAP) and annual reports</i>
Fundraising and development	683,614	900,791	698,194	<i>Audited financial statements (GAAP) and annual reports</i>
<b>Total expenses</b>	<b>34,180,722</b>	<b>32,861,235</b>	<b>39,963,767</b>	
<b>Program costs as a % of total expenses</b>	<b>90.0%</b>	<b>87.6%</b>	<b>88.0%</b>	
<b>Management and general as a % of total expenses</b>	<b>8.0%</b>	<b>9.7%</b>	<b>10.2%</b>	
<b>Fundraising as a % of total expenses</b>	<b>2.0%</b>	<b>2.7%</b>	<b>1.7%</b>	
<b>Cost per beneficiary</b>				
Total # of participants	196,000	212,000	248,000	<i>Annual reports</i>
Total cost per beneficiary	\$174	\$155	\$161	
Total cost per beneficiary, less program revenues	\$95	\$85	\$104	
FRC cost per beneficiary	\$601	\$518	\$575	

## THIRD PARTY RATINGS

**Charity Navigator** has rated the organization 4 out of 4 stars for the past 4 years.

## GET INVOLVED

- Donate: <http://www.usfirst.org/involved/donate>
- Volunteer: <http://www.usfirst.org/roboticsprograms/coachesmentors>
- Become a sponsor: <http://www.usfirst.org/sponsors/become-a-first-sponsor>

## DISCLOSURES

Annie Lee certifies that she does not have any affiliation with FIRST and has never made a donation to the organization. Additionally, Annie has not supported directly competing organizations in a greater capacity than a nominal donation. NPI analysts and NPI as an organization do not receive any form of compensation from reviewed charities.

This report is for informational purposes only and does not constitute a solicitation for donations. While the reliability of information contained in this report has been assessed by NPI, NPI makes no representation as to its accuracy or completeness, except with respect to the Disclosure Section of the report. Any opinions expressed herein reflect our judgment as of the date of the materials and are subject to change without notice. NPI has no obligation to update, modify or amend any report or to otherwise notify a reader thereof in the event that any matter stated herein, or any opinion, projection, forecast or estimate set forth herein, changes or subsequently becomes inaccurate, or if research on the subject organization is withdrawn.

Opinions and recommendations in our reports do not take into account specific reader circumstances, objectives, or needs. The recipients of our reports must make their own independent decisions regarding any organization mentioned by NPI.