



THE ASPEN INSTITUTE

# PROJECT PLAY

2019 National Youth Sport Survey

In collaboration with and analysis  
by Dr. Travis Dorsch of the



**UtahStateUniversity**<sup>®</sup>  
FAMILIES IN SPORT LAB

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## **BACKGROUND**

## Commissioning of the study

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The Aspen Institute's Sports & Society team has been in existence since 2013 and its primary mission is to convene leaders, foster dialogue, and inspire solutions that help sport serve the public interest, with a focus on the development of healthy children and communities. The program has successfully provided a venue for thought leadership where knowledge can be deepened and breakthrough strategies explored on a range of issues.

To date, its signature initiatives have been *Project Play* and *Future of Sports*. The Project Play team has issued State of Play reports on the issues affecting youth sports engagement in Baltimore, Harlem, Mobile, Southeast Michigan, and Western New York. As a next step, the Sports & Society team (Tom Farrey, Jon Solomon, Emily Stets, Otto Strong) wished to assess the national state of youth sports and sought out a partnership with Dr. Travis Dorsch, founding director of the Families in Sport Lab at Utah State University.

The two-part study, described herein, targeted a nationally representative sample of 1000 youth sport parents as well as small representative samples from 13 communities that map to past, current, and potential future State of Play reports across the United States. The aim of the study was therefore to address the important role that parents play on children's developmental outcomes in youth sport.

The survey, hosted and distributed by Qualtrics International, Inc. in Provo, Utah, was a study designed instrument built by Dr. Dorsch with input from the Aspen Institute Sport & Society team. The initial section of the survey asked parents to answer 16 demographic items about themselves, their children, and their family. The second section of the survey asked parents to respond to specific questions about their children's sport participation, their personally held desires for coach training, important sport outcomes, sources of pressure on their athletes, athlete sport experiences, and utilized modes of transportation. The final section of the survey asked parents to identify the sports their children had discontinued, including when and why the discontinuation occurred.

## **THE NATIONAL SAMPLE**

## Parent demographics

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SURVEY ITEM: What is your age?

<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>Range</i>
1032	40.76	10.52	18-71

TAKE HOME: The national sample was comprised of 1032 parents ranging in age from 18 to 71 ( $M = 40.76$ ).

SURVEY ITEM: What is your gender?

	<i>n</i>	<i>% of sample</i>
Male	294	28.5%
Female	737	71.4%
Non-binary	1	0.1%

TAKE HOME: The 1032 parents were 737 females and 294 males. One participant identified as non-binary.

SURVEY ITEM: What is your race?

	<i>n</i>	<i>% of sample</i>
Asian/Pacific Islander	62	6.0%
Black or African American	108	10.5%
Hispanic or Latino	94	9.1%
Native American or American Indian	11	1.1%
White	741	71.8%
More than one race	9	0.9%
Other	7	0.7%

TAKE HOME: Though predominantly white (71.8%), parents represented a range of races and ethnicities.

SURVEY ITEM: What is your current relationship status?

	<i>n</i>	<i>% of sample</i>
Married	678	65.7%
Single, never married	150	14.5%
Living with partner, not married	91	8.8%
Widowed	18	1.7%
Divorced	84	8.1%
Separated	11	1.1%

TAKE HOME: Though coming primarily from married relationships (65.7%), parents represented a range of relationship statuses.

SURVEY ITEM: What is the highest degree or level of school you have achieved?

	<i>n</i>	<i>% of sample</i>
Elementary	2	0.2%
Junior high/middle school	3	0.3%
Some high school	30	1.9%
High school graduate or GED	177	17.2%
Some college	213	20.6%
Associate's degree	149	14.4%
Bachelor's degree	280	27.1%
Master's degree	140	13.6%
Professional degree	22	2.1%
Doctorate degree	26	2.5%

TAKE HOME: A plurality (45.4%) of parents had attained a four-year degree (or higher), whereas 54.6% of parents had less than a four-year college degree.

SURVEY ITEM: What is your current employment status?

	<i>n</i>	<i>% of sample</i>
Full-time	611	59.2%
Part-time	110	10.7%
Self-employed	44	4.3%
Out of work, looking for work	24	2.3%
Out of work, not looking for work	6	0.6%
Homemaker	156	15.1%
Student	16	1.6%
Retired	40	3.9%
Unable to work	25	2.4%

TAKE HOME: Though working primarily in full-time positions (59.2%), parents represented a range of employment statuses.

## Athlete demographics

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SURVEY ITEM: What is your oldest child's age?

<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>Range</i>
1032	12.50	3.67	6-18

TAKE HOME: The 1032 parents answered questions related to each parent's oldest child who was an active participant in youth sport. The athletes ranged in age from 6 to 18 years ( $M = 12.50$ ).

SURVEY ITEM: What is your oldest child's gender?

	<i>n</i>	<i>% of sample</i>
Male	531	51.5%
Female	500	48.4%
Non-binary	1	0.1%

TAKE HOME: The 1032 athletes on whom parents reported were 531 males and 500 females. One participant identified by their parent as non-binary.

SURVEY ITEM: What is your oldest child's race?

	<i>n</i>	<i>% of sample</i>
Asian/Pacific Islander	62	6.0%
Black or African American	109	10.6%
Hispanic or Latino	96	9.3%
Native American or American Indian	13	1.3%
White	732	70.8%
More than one race	13	1.3%
Other	7	0.7%

TAKE HOME: Though predominantly white (70.8%), athletes represented a range of races and ethnicities.



## Family demographics

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SURVEY ITEM: In what state does your family currently reside?

	<i>n</i>	<i>% of sample</i>
Alabama	25	2.4%
Alaska	1	0.1%
Arizona	18	1.7%
Arkansas	8	0.8%
California	33	3.2%
Colorado	4	0.4%
Connecticut	19	1.8%
Delaware	3	0.3%
Florida	73	7.1%
Georgia	44	4.3%
Hawaii	1	0.1%
Idaho	7	0.7%
Illinois	47	4.6%
Indiana	14	1.4%
Iowa	9	0.9%
Kansas	17	1.6%
Kentucky	10	1.0%
Louisiana	19	1.8%
Maine	4	0.4%
Maryland	19	1.8%
Massachusetts	34	3.3%
Michigan	8	0.8%
Minnesota	12	1.2%
Mississippi	12	1.2%
Missouri	30	2.9%
Montana	3	0.3%
Nebraska	7	0.7%
Nevada	8	0.8%
New Hampshire	5	0.5%
New Jersey	95	9.2%
New Mexico	7	0.7%
New York	38	3.7%
North Carolina	49	4.7%
North Dakota	1	0.1%
Ohio	43	4.2%
Oklahoma	17	1.6%
Oregon	7	0.7%
Pennsylvania	59	5.7%
Rhode Island	10	1.0%
South Carolina	21	2.0%
South Dakota	2	0.2%
Tennessee	27	2.6%
Texas	69	6.7%
Utah	3	0.3%

Vermont	1	0.1%
Virginia	28	2.7%
Washington	9	0.9%
West Virginia	11	1.1%
Wisconsin	38	3.7%
Wyoming	3	0.3%

TAKE HOME: Families whose parents participated in the survey represented all 50 states. Respondents per state ranged from 1 (in Alaska, Hawaii, North Dakota, and Vermont) to 95 (New Jersey) ( $M = 20.64$  respondents per state).

SURVEY ITEM: Please describe your community/neighborhood.

	<i>n</i>	<i>% of sample</i>
Urban	207	20.1%
Suburban	611	59.2%
Rural	214	20.7%

TAKE HOME: Families whose parents participated in the survey represented primarily suburban households (59.2%), with the remainder representing a relatively even split of urban and rural households.

SURVEY ITEM: What is your annual pre-tax HOUSEHOLD income (across all earners)?

<i>Mean</i>	<i>SD</i>	<i>Range</i>
\$90,907.79	\$119,267.31	\$0-\$1,400,000

TAKE HOME: The 1032 parent respondents reported gross annual HOUSEHOLD incomes ranging from \$0 to \$1,400,000 ( $M = \$119,267.31$ ).

SURVEY ITEM: How many children currently reside in your home?

<i>Mean</i>	<i>SD</i>	<i>Range</i>
1.90	1.04	1-10

TAKE HOME: Parents reported having from 1 to 10 children living in the household ( $M = 1.90$ ).

## **DESCRIPTIVE STATISTICS**

## Sport participation

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SURVEY ITEM: Please select all the sports in which your child regularly participates and/or competes. For the purposes of this survey, “regularly” was defined as a minimum of 35 practice, training, or competition days within the previous 12 month period.

<i>N<sub>athletes</sub></i>	<i>N<sub>sports</sub></i>	<i>Mean</i>	<i>SD</i>	<i>Range</i>
1032	2073	2.01	1.39	1-16

Athletes were “regular” participants in...	<i>n</i>	<i>% of sample</i>
1 sport	470	45.4%
2 sports	306	29.7%
3 sports	144	14.0%
4 sports	55	5.3%
5 sports	28	2.7%
6 sports	15	1.5%
7 sports	5	0.5%
8 sports	3	0.3%
9 sports	4	0.4%
13 sports	1	0.1%
16 sports	1	0.1%

Athletes were “regular” participants in...	<i>n</i>	<i>% of sample</i>
Baseball	250	12.1%
Basketball	347	16.7%
Bicycling	38	1.8%
Cross country	60	2.9%
Field hockey	16	0.8%
Flag football	73	3.5%
Tackle	123	5.9%
Golf	42	2.0%
Gymnastics	89	4.3%
Ice hockey	22	1.1%
Lacrosse	28	1.4%
Martial arts	73	3.5%
Skateboarding	25	1.2%
Skiing/Snowboarding	14	0.7%
Soccer	271	13.1%
Softball	100	4.8%
Swimming	111	5.4%
Tennis	69	3.3%
Track & field	111	5.4%
Volleyball	87	4.2%
Wrestling	33	1.6%
Other sports	91	4.4%

NOTE: Other sports listed were: Archery 4, Badminton 2, Bowling 7, Boxing 1, Canoeing 1, Cheerleading 21, CrossFit 1, Dance 27, Disc golf 1, Equestrian 1, Fencing 3, Figure skating 2, Fishing 1, Floor hockey 4, Hiking 1, Ice Skating 1, Karate 5, Parkour 1, Pickle ball 1, Rock climbing 1, Rodeo 1, Water polo 2, Water skiing 1, and Weightlifting 1

TAKE HOME: Parents reported that their children were “regular” participants in 1 to 16 sports ( $M = 2.01$ ). Though a plurality of athletes (45.4%) participated regularly in only one sport, the majority (54.2%) participated regularly in 2 to 6 sports. The most commonly participated in sports were basketball (16.7% of the sample), soccer (13.1% of the sample), and baseball (12.1% of the sample).

SURVEY ITEM: At what age did your child begin playing [SPORT] on a regular basis?

Age of athletes' first "regular" participation	Mean	SD	Range
Baseball	6.47	2.63	2-18
Basketball	7.87	2.80	3-18
Bicycling	6.68	2.40	3-13
Cross country	10.37	3.76	4-18
Field hockey	9.06	3.61	4-16
Flag football	7.73	3.28	3-16
Tackle football	9.63	2.85	5-18
Golf	8.00	3.72	2-16
Gymnastics	5.82	3.00	1-16
Ice hockey	7.23	3.21	3-16
Lacrosse	10.14	3.57	4-16
Martial arts	7.25	2.89	3-16
Skateboarding	7.42	2.90	3-13
Skiing/Snowboarding	6.36	1.91	4-10
Soccer	6.72	2.88	2-17
Softball	8.28	3.02	4-15
Swimming	7.11	2.94	3-16
Tennis	9.12	3.36	2-17
Track & field	11.07	3.20	4-17
Volleyball	10.25	3.01	4-16
Wrestling	10.12	4.20	3-16
Other sports	8.40	3.72	2-17
<b>ALL SPORTS</b>	<b>7.97</b>	<b>3.36</b>	<b>1-18</b>

TAKE HOME: The average age of first regular sport participation was 7.97 years. However, in five sports (cross country, lacrosse, track & field, volleyball, and wrestling) participants did not start regular participation until, on average, after 10 years of age.

SURVEY ITEM: How many hours a week does your child engage in the following during the [SPORT] season?

Weekly hours of participation	Pickup/ Free play	Practice/ Training	Games or Competition	M	SD	Range
Baseball	3.55	5.20	4.67	13.42	10.84	1-57
Basketball	4.17	4.55	3.57	12.29	11.32	1-60
Bicycling	4.69	2.58	1.51	8.78	7.80	1-35
Cross country	4.14	4.07	2.51	10.72	7.76	1-23
Field hockey	3.77	4.69	3.92	12.38	12.63	1-49
Flag football	3.10	3.66	2.78	9.54	10.19	1-39
Tackle football	2.83	6.80	3.10	12.63	8.48	1-43
Golf	3.79	2.85	2.62	9.26	8.73	1-53
Gymnastics	3.19	3.96	2.51	9.66	10.22	1-57
Ice hockey	2.45	4.65	2.86	9.96	6.71	1-40
Lacrosse	3.74	6.11	4.30	14.15	10.67	1-47
Martial arts	2.59	3.48	1.79	7.87	8.74	1-58
Skateboarding	6.26	2.67	0.95	9.88	9.69	1-43
Skiing/Snowboarding	9.33	2.92	1.16	13.41	9.53	4-40
Soccer	3.23	4.33	3.23	10.79	10.43	1-59
Softball	2.67	5.34	4.67	12.68	9.80	1-46
Swimming	4.60	4.34	2.25	11.19	8.23	1-32
Tennis	3.16	3.50	2.12	8.78	8.74	1-48
Track & field	2.33	5.69	3.95	11.97	9.75	1-27
Volleyball	3.18	5.92	3.71	12.81	10.63	1-49
Wrestling	2.24	5.52	4.07	11.83	8.93	1-39
Other sports	2.43	4.20	2.00	8.66	8.00	1-52
<b>ALL SPORTS</b>	<b>3.66</b>	<b>4.80</b>	<b>3.42</b>	<b>11.87</b>	<b>10.21</b>	<b>1-60</b>

TAKE HOME: The average weekly sport participation was 11.87 hours. However, there was a surprisingly wide range of weekly sport participation reported by parents (1 to 60 hours). In part, this could be due to the fact that data were collected in the summer, at which time many children were out of school.

SURVEY ITEM: Please estimate your family's spending on [SPORT] over the last 12 months?

Family spending	Registration	Equipment	Travel	Lessons	Camps	Other	M	SD	Range
Baseball	\$165.90	\$121.03	\$175.11	\$106.22	\$99.85	\$25.51	\$659.96	\$1294.58	\$0-\$14,500
Basketball	\$86.34	\$74.72	\$113.96	\$60.74	\$87.55	\$2.36	\$426.78	\$988.43	\$0-\$9229
Bicycling	\$120.34	\$503.66	\$247.13	\$29.22	\$105.52	\$5.73	\$1011.61	\$1922.30	\$0-\$8700
Cross country	\$130.13	\$87.44	\$146.74	\$22.48	\$30.56	\$3.51	\$420.86	\$786.95	\$0-\$4500
Field hockey	\$408.85	\$521.35	\$934.42	\$85.77	\$132.12	\$42.12	\$2124.62	\$2322.42	\$0-\$7750
Flag football	\$73.96	\$68.44	\$58.32	\$26.88	\$35.85	\$7.94	\$268.46	\$433.70	\$0-\$3240
Tackle football	\$91.12	\$109.86	\$83.35	\$116.48	\$76.32	\$7.44	\$484.57	\$784.43	\$0-\$6100
Golf	\$80.62	\$363.82	\$237.56	\$88.24	\$113.24	\$41.91	\$925.38	\$1081.96	\$0-\$3825
Gymnastics	\$151.56	\$111.37	\$762.60	\$421.60	\$104.47	\$16.11	\$1580.28	\$4840.11	\$0-\$30,700
Ice hockey	\$634.38	\$389.05	\$829.40	\$389.33	\$301.55	\$39.02	\$2582.74	\$3662.55	\$0-\$20,950
Lacrosse	\$411.02	\$279.50	\$280.70	\$67.50	\$230.50	\$20.00	\$1289.22	\$1760.98	\$0-\$9000
Martial arts	\$81.56	\$85.94	\$106.92	\$467.02	\$25.46	\$9.61	\$776.51	\$974.86	\$0-\$6500
Skateboarding	\$20.02	\$109.08	\$80.71	\$23.57	\$141.33	\$5.31	\$380.02	\$1108.05	\$0-\$7500
Skiing/Snowboarding	\$167.96	\$1173.89	\$433.67	\$280.89	\$55.78	\$136.67	\$2248.84	\$2592.73	\$0-\$12,000
Soccer	\$157.55	\$124.94	\$106.59	\$66.35	\$73.45	\$6.45	\$536.90	\$1144.23	\$0-\$9500
Softball	\$141.31	\$158.85	\$187.15	\$65.67	\$52.99	\$4.73	\$612.83	\$1136.17	\$0-\$7000
Swimming	\$115.50	\$58.62	\$388.26	\$153.70	\$67.51	\$3.20	\$786.03	\$2151.99	\$0-\$21,020
Tennis	\$114.89	\$121.54	\$351.81	\$470.72	\$94.60	\$16.53	\$1170.09	\$3746.65	\$0-\$34,900
Track & field	\$51.20	\$46.89	\$49.20	\$20.05	\$13.90	\$9.30	\$191.34	\$350.15	\$0-\$3040
Volleyball	\$241.60	\$66.40	\$170.28	\$52.70	\$54.04	\$7.85	\$595.49	\$1380.13	\$0-\$9150
Wrestling	\$101.72	\$58.80	\$172.28	\$61.50	\$54.36	\$24.44	\$476.45	\$900.55	\$0-\$4600
Other sports	\$104.97	\$336.40	\$153.83	\$508.32	\$57.66	\$77.77	\$1233.30	\$2509.13	\$0-\$15,900
<b>ALL SPORTS</b>	<b>\$124.96</b>	<b>\$143.88</b>	<b>\$196.25</b>	<b>\$133.52</b>	<b>\$80.86</b>	<b>\$14.35</b>	<b>\$692.53</b>	<b>\$1,780.60</b>	<b>\$0-\$34,900</b>

TAKE HOME: The average amount of family spending on sport was \$692.53 per child, per sport, per year. However, there was a surprisingly wide range of family spending (\$0 to \$34,900).

## Desired coach training

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SURVEY ITEM: How important is it to you that your child's [SPORT] coach(es) have the following training?

	<i>CPR/ basic first-aid</i>	<i>Physical conditioning</i>	<i>Effective motivation techniques</i>	<i>Sport skills &amp; tactics</i>	<i>General safety</i>	<i>Concussion prevention &amp; mgmt</i>
Baseball	4.07	4.01	4.24	4.31	4.33	4.24
Basketball	4.12	4.05	4.18	4.25	4.29	4.27
Bicycling	4.15	4.00	3.91	3.84	4.04	3.94
Cross country	4.23	4.20	4.31	4.18	4.41	4.12
Field hockey	4.42	4.27	4.15	4.23	4.38	4.35
Flag football	4.35	4.13	4.29	4.26	4.40	4.31
Tackle football	4.36	4.38	4.35	4.40	4.57	4.50
Golf	4.07	3.85	4.15	4.19	4.15	3.85
Gymnastics	4.34	4.36	4.37	4.33	4.51	4.39
Ice hockey	4.17	3.93	4.24	4.21	4.43	4.31
Lacrosse	4.38	4.22	4.24	4.28	4.30	4.40
Martial arts	4.15	4.33	4.44	4.37	4.50	4.42
Skateboarding	3.41	3.31	3.43	3.29	3.39	3.33
Skiing/Snowboarding	3.93	3.93	4.04	4.16	4.22	4.02
Soccer	4.22	4.06	4.27	4.28	4.36	4.29
Softball	4.30	4.13	4.23	4.30	4.41	4.29
Swimming	4.48	4.24	4.29	4.20	4.49	4.23
Tennis	3.95	3.99	4.04	4.03	4.13	3.99
Track & field	4.32	4.28	4.31	4.28	4.36	4.31
Volleyball	4.38	4.22	4.33	4.27	4.43	4.36
Wrestling	4.16	4.18	4.20	4.24	4.28	4.30
Other sports	3.93	3.99	4.23	4.07	4.31	4.01
<b>ALL SPORTS</b>	<b>4.21</b>	<b>4.11</b>	<b>4.24</b>	<b>4.26</b>	<b>4.35</b>	<b>4.26</b>

\*Data were collected on a scale ranging from 1-5

**TAKE HOME:** Parents reported a relatively consistent desire for all forms of coach training and education. Not surprisingly, safety ( $M = 4.35$ ) was the highest concern for parents. Conditioning ( $M = 4.11$ ) was parents' lowest rated concern related to coach training.



## Important sport outcomes

SURVEY ITEM: Please rate the importance of the following outcomes for your child in [SPORT].

	<i>Fun</i>	<i>Peer relationships</i>	<i>Social skills</i>	<i>Sport skills</i>	<i>Physical health</i>	<i>Mental health</i>	<i>College admission</i>	<i>Scholarship</i>	<i>Pro opportunity</i>
Baseball	4.51	4.46	4.42	4.34	4.44	4.39	3.51	3.42	3.26
Basketball	4.49	4.34	4.36	4.24	4.33	4.29	3.40	3.35	3.21
Bicycling	4.22	4.01	3.94	4.07	4.19	4.13	3.63	3.54	3.52
Cross country	4.46	4.29	4.32	4.23	4.40	4.38	3.11	3.01	2.87
Field hockey	4.35	4.12	4.31	4.27	4.31	4.08	3.50	3.27	3.19
Flag football	4.53	4.34	4.29	4.29	4.35	4.30	3.46	3.34	3.21
Tackle football	4.35	4.30	4.33	4.33	4.40	4.26	3.49	3.51	3.42
Golf	4.44	4.21	4.25	4.21	4.13	4.29	3.41	3.32	3.29
Gymnastics	4.67	4.39	4.43	4.32	4.39	4.38	3.38	3.40	3.31
Ice hockey	4.52	4.33	4.31	4.21	4.43	4.33	3.50	3.43	3.14
Lacrosse	4.28	4.24	4.22	4.20	4.18	4.32	3.34	3.20	2.88
Martial arts	4.47	4.50	4.45	4.36	4.47	4.44	3.14	2.92	3.00
Skateboarding	4.39	4.10	4.16	3.80	4.02	4.08	2.78	2.59	2.82
Skiing/Snowboarding	4.40	4.04	4.24	4.22	4.44	4.22	2.82	2.80	2.82
Soccer	4.60	4.42	4.39	4.25	4.41	4.34	3.00	2.94	2.80
Softball	4.61	4.39	4.31	4.27	4.34	4.29	3.13	3.07	2.89
Swimming	4.50	4.29	4.30	4.13	4.43	4.34	3.23	3.12	3.14
Tennis	4.43	4.17	4.20	4.10	4.23	4.19	3.36	3.21	3.13
Track & field	4.41	4.27	4.20	4.14	4.45	4.33	3.12	3.01	2.89
Volleyball	4.46	4.36	4.39	4.20	4.39	4.36	3.36	3.36	3.22
Wrestling	4.28	4.16	4.20	4.30	4.34	4.28	3.52	3.34	3.10
Other sports	4.46	4.47	4.39	3.99	4.33	4.32	2.88	2.68	2.54
<b>ALL SPORTS</b>	<b>4.49</b>	<b>4.35</b>	<b>4.33</b>	<b>4.24</b>	<b>4.37</b>	<b>4.33</b>	<b>3.30</b>	<b>3.22</b>	<b>3.13</b>

\*Data were collected on a scale ranging from 1-5

TAKE HOME: Parents reported a relatively high desire for all sport outcomes. However, parents' desire for an enhanced chance of college admission ( $M = 3.30$ ), scholarship opportunities ( $M = 3.22$ ), and pro opportunities ( $M = 3.13$ ) were lower relative to the other outcomes.

## Sources of pressure on athletes

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SURVEY ITEM: How much pressure does your child feel in [SPORT]?

	<i>From parents</i>	<i>From siblings</i>	<i>From peers</i>	<i>From coaches</i>	<i>From the sport organization</i>	<i>From the community</i>	<i>From broader society</i>
Baseball	2.69	2.37	3.04	3.33	2.93	2.61	2.57
Basketball	3.19	2.93	3.28	3.48	3.18	3.10	3.10
Bicycling	3.18	3.03	3.09	3.31	3.09	2.96	3.09
Cross country	3.21	2.96	3.26	3.36	3.31	3.00	3.00
Field hockey	3.58	3.38	3.54	3.58	3.69	3.54	3.42
Flag football	3.31	3.06	3.30	3.44	3.22	3.16	3.15
Tackle football	3.20	3.00	3.33	3.49	3.22	3.13	3.05
Golf	3.18	2.82	3.15	3.22	3.22	2.99	3.01
Gymnastics	3.15	2.96	3.11	3.41	3.21	2.97	2.92
Ice hockey	3.00	2.86	3.29	3.50	3.07	2.95	2.88
Lacrosse	2.94	2.64	3.14	3.32	3.10	2.82	2.76
Martial arts	3.05	2.78	2.80	3.14	2.94	2.89	2.81
Skateboarding	2.76	2.65	2.76	2.57	2.69	2.67	2.76
Skiing/Snowboarding	3.04	2.93	2.96	2.89	2.91	2.82	2.73
Soccer	3.09	2.78	3.15	3.31	3.09	2.96	2.93
Softball	3.17	2.81	3.19	3.39	3.15	3.04	2.95
Swimming	3.10	2.90	3.23	3.24	3.10	3.00	3.01
Tennis	3.19	3.01	3.29	3.29	2.97	3.02	3.04
Track & field	3.10	2.91	3.20	3.37	3.12	3.02	2.93
Volleyball	3.05	2.90	3.18	3.35	3.10	2.96	2.92
Wrestling	3.36	3.16	3.44	3.62	3.44	3.24	3.10
Other sports	2.99	2.74	3.02	3.23	2.97	2.79	2.79
<b>ALL SPORTS</b>	<b>3.09</b>	<b>2.88</b>	<b>3.18</b>	<b>3.37</b>	<b>3.13</b>	<b>2.99</b>	<b>2.95</b>

\*Data were collected on a scale ranging from 1-5

TAKE HOME: Parents reported relatively moderate levels of pressure in their athletes. The highest source of pressure across the sample was coaches ( $M = 3.37$ ) and the lowest was siblings ( $M = 2.88$ ).

## Athlete sport experiences

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SURVEY ITEM: Please rate your child on the following in [SPORT].

	<i>Enjoyment</i>	<i>Competence</i>	<i>Stress</i>	<i>Commitment</i>
Baseball	5.88	5.62	3.89	5.43
Basketball	5.81	5.51	4.00	5.43
Bicycling	5.67	5.52	4.18	5.25
Cross country	5.70	5.39	3.78	5.27
Field hockey	5.69	5.50	4.50	5.58
Flag football	5.94	5.69	4.09	5.46
Tackle football	5.79	5.57	4.04	5.45
Golf	5.71	5.35	4.15	5.06
Gymnastics	6.01	5.52	4.07	5.43
Ice hockey	5.83	5.29	3.79	5.43
Lacrosse	5.42	5.16	4.20	5.24
Martial arts	5.85	5.52	3.76	5.37
Skateboarding	5.82	5.22	3.63	4.88
Skiing/Snowboarding	5.76	5.53	3.51	4.96
Soccer	5.78	5.42	3.71	5.20
Softball	5.94	5.65	3.99	5.46
Swimming	6.00	5.59	4.05	5.43
Tennis	5.68	5.31	4.00	5.10
Track & field	5.68	5.47	3.62	5.38
Volleyball	5.76	5.36	3.93	5.39
Wrestling	5.58	5.42	3.82	5.50
Other sports	5.87	5.51	3.61	5.42
<b>ALL SPORTS</b>	<b>5.81</b>	<b>5.53</b>	<b>3.91</b>	<b>5.37</b>

\*Data were collected on a scale ranging from 1-7

TAKE HOME: Parents reported relatively high levels of enjoyment, competence and commitment in their athletes, and moderate levels of stress. The sport with the highest average level of enjoyment was gymnastics ( $M = 6.01$ ) and the sport with the lowest average level of enjoyment was lacrosse ( $M = 5.42$ ). The sport with the highest average level of competence was flag football ( $M = 5.69$ ) and the sport with the lowest average level of competence was lacrosse ( $M = 5.16$ ). The sport with the highest average level of stress was field hockey ( $M = 4.50$ ) and the sport with the lowest average level of stress was skiing/snowboarding ( $M = 3.51$ ). The sport with the highest average level of commitment was wrestling ( $M = 5.50$ ) and the sport with the lowest average level of commitment was skateboarding ( $M = 4.88$ ).

## Utilized modes of transportation

SURVEY ITEM: What percent of the time does your child travel to [SPORT] practices, training, games, and/or competitions in the following ways?

	<i>Parent</i>	<i>Carpool</i>	<i>Program</i>	<i>School bus</i>	<i>City bus</i>	<i>Subway/ train</i>	<i>Taxi/Uber/ Lyft</i>	<i>By foot</i>	<i>Bicycle</i>
Baseball	69.15%	7.58%	4.91%	5.88%	3.89%	1.47%	1.52%	2.66%	2.94%
Basketball	61.23%	7.14%	6.62%	13.02%	1.95%	1.83%	2.21%	3.87%	2.13%
Bicycling	40.78%	7.01%	9.73%	7.94%	4.01%	2.78%	2.19%	3.09%	22.47%
Cross country	54.96%	6.19%	7.84%	22.54%	1.28%	0.60%	0.81%	4.27%	1.51%
Field hockey	47.31%	26.92%	9.23%	10.19%	3.08%	1.35%	0.81%	0.46%	0.65%
Flag football	67.64%	16.29%	3.17%	3.94%	1.34%	2.01%	1.49%	2.65%	1.47%
Tackle football	59.83%	9.00%	6.60%	14.40%	2.12%	1.57%	1.77%	3.03%	1.68%
Golf	71.13%	6.96%	7.50%	4.78%	1.91%	1.03%	2.13%	2.50%	2.06%
Gymnastics	78.06%	5.07%	4.73%	4.73%	1.44%	1.42%	2.10%	1.27%	1.18%
Ice Hockey	72.36%	4.88%	11.51%	2.05%	1.88%	0.88%	1.60%	1.60%	3.24%
Lacrosse	59.06%	14.26%	7.94%	10.54%	1.00%	0.40%	1.40%	4.40%	1.00%
Martial arts	85.76%	2.61%	2.62%	2.02%	2.31%	0.50%	2.29%	0.61%	1.28%
Skateboarding	52.78%	6.06%	4.10%	2.10%	2.31%	3.61%	1.63%	25.63%	1.78%
Skiing/Snowboarding	72.02%	9.79%	5.04%	4.11%	3.84%	3.80%	0.29%	0.27%	0.84%
Soccer	74.22%	10.15%	3.85%	4.77%	1.11%	0.62%	1.05%	2.86%	1.37%
Softball	71.19%	8.00%	4.31%	9.71%	1.94%	0.83%	1.19%	2.00%	0.83%
Swimming	67.34%	6.30%	4.76%	12.22%	1.31%	1.63%	1.27%	3.57%	1.60%
Tennis	65.45%	15.93%	2.15%	7.73%	0.71%	0.84%	0.79%	3.49%	2.91%
Track & field	50.40%	6.41%	9.21%	24.25%	1.10%	0.96%	0.87%	4.70%	2.10%
Volleyball	57.58%	9.46%	8.54%	17.02%	1.42%	0.88%	1.28%	3.17%	0.65%
Wrestling	58.00%	5.60%	5.10%	15.80%	1.62%	5.28%	2.40%	4.00%	2.20%
Other sports	68.63%	5.31%	2.27%	2.68%	13.55%	1.50%	3.77%	1.06%	1.23%
<b>ALL SPORTS</b>	<b>66.16%</b>	<b>7.21%</b>	<b>5.75%</b>	<b>8.97%</b>	<b>1.26%</b>	<b>1.00%</b>	<b>1.12%</b>	<b>2.72%</b>	<b>1.57%</b>

NOTE: The sum score across all modes of transportation did not equal 100% for all parent respondents. Therefore, the columns depicted in this table do not sum to 100%. Values should therefore be considered close approximations of families' actual transportation behavior.

TAKE HOME: The vast majority of athletes (66.16%) are being transported to and from their practice/training and games/competitions by their parents.

## Sport discontinuation

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SURVEY ITEM: Please identify the sport(s) in which your child has discontinued regular participation/competition (at one time your child participated in at least 35 practice, training, game, and/or competition days per year, but does not any more).

	<i>n</i> participated regularly	<i>n</i> dropped out	% dropped out
Baseball	407	157	38.6%
Basketball	497	150	30.2%
Bicycling	72	17	23.6%
Cross country	95	35	36.8%
Field hockey	28	12	42.9%
Flag football	116	43	37.1%
Tackle	173	50	28.9%
Golf	65	23	35.4%
Gymnastics	148	59	39.9%
Ice hockey	37	15	40.5%
Lacrosse	39	11	28.2%
Martial arts	123	50	40.7%
Skateboarding	34	9	26.5%
Skiing/Snowboarding	20	6	30.0%
Soccer	417	146	35.0%
Softball	142	42	29.6%
Swimming	159	48	30.2%
Tennis	95	26	27.4%
Track & field	154	43	27.9%
Volleyball	122	35	28.7%
Wrestling	62	29	46.8%
Other sports	257	166	64.6%
<b>ALL SPORTS</b>	<b>3245</b>	<b>1172</b>	<b>36.1%</b>

TAKE HOME: Parents reported that athletes had discontinued participation in 1172 of the 3245 sports (36.1%) in which they had at one point been regular participants. The sport with the highest discontinuation rate (other than the “other” category) was wrestling (46.8%). The sport with the lowest discontinuation rate was competitive or team bicycling (23.6%).

SURVEY ITEM: At what age did your child start and stop participating regularly in [SPORT]?

	Age of FIRST regular participation			Age of LAST regular participation			Average length of participation
	<i>Mean</i>	<i>SD</i>	<i>Range</i>	<i>Mean</i>	<i>SD</i>	<i>Range</i>	
Baseball	7.12	3.23	2-17	10.46	3.88	3-18	3.32
Basketball	7.99	3.31	2-17	11.22	3.79	3-18	3.23
Bicycling	6.93	3.24	3-15	9.47	3.80	5-18	2.53
Cross country	11.02	2.97	5-16	12.71	3.29	6-18	1.69
Field hockey	6.32	2.56	3-13	11.42	3.72	4-18	5.11
Flag football	6.35	1.71	3-12	10.42	3.03	5-18	4.07
Tackle football	9.16	3.08	5-17	11.93	3.69	6-18	2.77
Golf	8.97	3.63	2-15	11.78	3.60	5-18	2.81
Gymnastics	5.75	2.73	1-15	8.72	3.08	3-17	2.97
Ice hockey	7.86	2.45	4-12	10.91	2.69	6-16	3.05
Lacrosse	9.00	2.77	5-14	11.21	3.41	6-18	2.21
Martial arts	6.61	2.79	2-17	9.17	2.77	4-18	2.56
Skateboarding	9.25	3.07	4-16	12.00	2.78	7-17	2.75
Skiing/Snowboarding	7.78	3.06	3-15	12.11	4.27	6-18	4.33
Soccer	6.11	2.61	2-17	9.08	3.37	3-18	2.96
Softball	7.59	2.97	3-17	10.38	3.57	4-18	2.79
Swimming	7.06	3.44	2-16	10.23	3.56	4-18	3.17
Tennis	8.98	4.31	3-17	10.91	4.27	3-18	1.93
Track & field	11.05	2.84	4-16	13.00	3.17	4-18	1.95
Volleyball	10.32	2.72	5-17	12.30	3.35	6-18	1.98
Wrestling	8.24	3.80	3-17	9.82	3.65	3-18	1.58
Other sports	7.20	3.14	2-17	9.48	3.86	3-18	2.29
<b>ALL SPORTS</b>	<b>7.65</b>	<b>3.35</b>	<b>1-17</b>	<b>10.52</b>	<b>3.71</b>	<b>3-18</b>	<b>2.86</b>

TAKE HOME: Across the sample, athletes' age of FIRST regular participation in sport ranged from 1 to 17 years ( $M = 7.65$ ) and athletes' age of LAST regular participation ranged from 3 to 18 years ( $M = 10.52$ ). The sport with the earliest age of FIRST participation was gymnastics ( $M = 5.75$ ) and the sports with the latest age of FIRST participation were cross country ( $M = 11.02$ ) and track & field ( $M = 11.05$ ). The sport with the earliest age of LAST participation was also gymnastics ( $M = 8.72$ ) and the sports with the latest age of LAST participation were also cross country ( $M = 12.71$ ) and track & field ( $M = 13.00$ ).

SURVEY ITEM: Please list the factor(s) that contributed to your child’s decision to discontinue participation in [SPORT].

Reasons cited for discontinuation	<i>Aged out or graduated</i>	<i>Being cut or quitting due to a lack of ability</i>	<i>Burned out</i>	<i>Death</i>	<i>Desire to spend time with friends or family</i>	<i>Diminishing enjoyment in current sport</i>	<i>Diminishing interest in current sport</i>	<i>Dissolution of team, club, or league</i>	<i>Feelings of stress and pressure</i>	<i>Increasing physicality/competitiveness</i>	<i>Increasing constraints on time</i>	<i>Increasing expenses</i>	<i>Injury or severe illness</i>	<i>Issues with teammates</i>	<i>Interest in non-sport opportunities</i>	<i>Interest in other sport opportunities</i>	<i>Lack of high quality coaching</i>	<i>Reduced access to facilities</i>
Baseball	2	5	4			48	29	2	14	5	13	6	8		8	30	6	
Basketball	7	15	3		4	30	23	1	6	4	12	2	11	2	3	22	5	1
Bicycling		2				4	2		2	1	1	1	4			1		1
Cross country	3		1		2	8	4				2		6	1	4	5		
Field hockey	1					2	2			1	4	1				3		1
Flag football	7	1				9	7	1	1	3	4		3		3	13	2	2
Tackle football	7	2			2	10	7	2	4	14	3		9		3	5	1	1
Golf	4		2		2	5	11			1	2	3				2	1	
Gymnastics	3	2	1		2	10	11		3	2	6	5	8		8	9	1	4
Ice hockey	2	1	2			2			2	2	1	1				1	1	2
Lacrosse	1	1			1	7	1		1	2	1	2				4		1
Martial arts	1	1	2		1	15	14			2	4	4	1		5	7	2	2
Skateboarding	2					1	4			1	1		1	1		4		
Skiing/Snowboarding			2	1		2	2	1		2	2	3	4		1	3	2	1
Soccer	12	13	3		2	64	21	2	1	13	6	3	3	2	5	39	3	
Softball	2	1			2	20	14		3	3	7	1			3	9	2	1
Swimming	2	1	2	1	1	6	1		1	1	2		1		1	4	1	
Tennis	1	1	2		1	7	3		1	1	3	2	1		2	2	1	1
Track & field	6	2	1		3	4	3		1	3	5		2		3	12	1	
Volleyball	6	2	1		2	13	2	1		3	5	1	1		1	5	1	
Wrestling	1		2		1	10	4	1	1	4	2	1	1		1	5		
Other sports	9	3	3		2	16	17	4	4		9	5	4		3	8	3	1
<b>TOTAL RESPONSES</b>	<b>79</b>	<b>53</b>	<b>31</b>	<b>2</b>	<b>28</b>	<b>293</b>	<b>182</b>	<b>15</b>	<b>45</b>	<b>68</b>	<b>95</b>	<b>41</b>	<b>68</b>	<b>6</b>	<b>54</b>	<b>193</b>	<b>33</b>	<b>19</b>
<b>% of RESPONSES</b>	<b>6.0</b>	<b>4.1</b>	<b>2.4</b>	<b>0.2</b>	<b>2.1</b>	<b>22.5</b>	<b>13.9</b>	<b>1.1</b>	<b>3.4</b>	<b>5.2</b>	<b>7.3</b>	<b>3.1</b>	<b>5.2</b>	<b>0.6</b>	<b>4.1</b>	<b>14.8</b>	<b>2.5</b>	<b>1.5</b>

TAKE HOME: The primary reasons cited for athletes discontinuing sport participation were diminishing enjoyment (22.5% of responses), interest in other sport opportunities (14.8% of responses), and diminishing interest in the current sport (13.9% of responses).

## Desired parent resources

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SURVEY ITEM: Please rate how important the following youth sport parenting resources would be to you.

	<i>Mean</i>	<i>SD</i>
How to find affordable teams	5.39	1.62
How to choose the most appropriate level of competition	5.23	1.57
How to develop appropriate expectations	5.27	1.50
How to find quality coaching	5.27	1.50
How to communicate with coaches	5.30	1.52
How to optimize the youth sport experience	5.01	1.68
Evidence-based strategies for parent involvement	5.25	1.56

\*Data were collected on a scale ranging from 1-7

TAKE HOME: Parents reported a relatively consistent desire for all forms of parent resources. Given the rising costs associated with many youth sport opportunities, it was not surprising that “how to find affordable teams” ( $M = 5.39$ ) was the most desired resource.



## **INFERENCEAL STATISTICS**

## Sport participation

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NOTE: For the purposes of these analysis, parents ( $n = 1$ ) and children ( $n = 1$ ) who identified as non-binary were excluded because group means could not be established across the dependent variables with just one individual in the sub-sample.

### Weekly sport participation

		More than 10 hours	More than 20 hours	More than 30 hours
Child gender	Male	46.0%	15.5%	6.5%
	Female	43.9%	16.9%	7.7%

\*Denotes a significant difference in the vertical columns

TAKE HOME: There was no statistical difference in the amount of hours males and females spent participating in youth sport.

### Length of regular participation

		More than 2 years	More than 5 years	More than 10 years
Child gender	Male	44.6%*	18.7%*	3.9%
	Female	38.2%*	13.7%*	3.2%

\*Denotes a significant difference in the vertical columns

TAKE HOME: Female athletes were 89.6% as likely to participate in a sport for more than 2 years and 94.2% as likely to participate in a sport for more than 5 years as male athletes. There was no statistical difference in the percentage of males and females who participated in a sport for more than 10 years.

### Family financial investment

		More than 1%	More than 2%	More than 5%	More than 10%
Child gender	Male	23.0%*	12.2%*	4.1%*	1.8%*
	Female	28.9%*	16.7%*	6.9%*	2.8%*

\*Denotes a significant difference in the vertical columns

TAKE HOME: Parents were 79.7% as likely to spend more than 1%, 72.9% as likely to spend more than 2%, 59.1% as likely to spend more than 5%, and 64.4% as likely to spend more than 10% of the family's gross annual income on a male as they were a female child.

		More than 1%	More than 2%	More than 5%	More than 10%
Community type	<i>Urban</i>	25.9%	13.1%	5.8%	2.9%
	<i>Suburban</i>	26.4%	15.4%	5.2%	1.9%
	<i>Rural</i>	23.4%	12.7%	5.1%	2.1%

\*Denotes a significant difference in the horizontal rows

TAKE HOME: There were no statistical differences in the percent of gross annual household income allocated toward athletes living in urban, suburban, and rural communities.

### Spending on registrations

		Number of sports	
		<i>Single</i>	<i>Multi</i>
Child gender	<i>Male</i>	\$155	\$127
	<i>Female</i>	\$170	\$122

Main effect of child gender is NOT significant ( $p = .74$ )  
 Main effect of number of sports is significant ( $p = .007^*$ )  
 Interaction effect is NOT significant ( $p = .47$ )

TAKE HOME: The amount of money parents spent on sport registration varied in a statistically significant way across single- and multi-sport participants. There were no statistically significant differences in parent spending across male and female athletes.

### Spending on equipment & uniforms

		Number of sports	
		<i>Single</i>	<i>Multi</i>
Child gender	<i>Male</i>	\$187	\$132
	<i>Female</i>	\$171	\$136

Main effect of child gender is NOT significant ( $p = .84$ )  
 Main effect of number of sports is significant ( $p = .03^*$ )  
 Interaction effect is NOT significant ( $p = .63$ )

TAKE HOME: The amount of money parents spent on sport equipment and uniforms varied in a statistically significant way across single- and multi-sport participants. There were no statistically significant differences in parent spending across male and female athletes.

### Spending on travel & lodging

		Number of sports	
		<i>Single</i>	<i>Multi</i>
Child gender	<i>Male</i>	\$155	\$129
	<i>Female</i>	\$404	\$243

Main effect of child gender is significant ( $p = .002^*$ )  
 Main effect of number of sports is NOT significant ( $p = .07$ )  
 Interaction effect is NOT significant ( $p = .19$ )

TAKE HOME: The amount of money parents spent on travel and lodging did NOT vary in a statistically significant way across single- and multi-sport participants. However, there was a statistically significant differences in parent spending across male and female athletes.

### Spending on lessons & instruction

		Number of sports	
		Single	Multi
Child gender	Male	\$164	\$103
	Female	\$282	\$139

Main effect of child gender is significant ( $p = .005^*$ )  
 Main effect of number of sports is significant ( $p < .001^*$ )  
 Interaction effect is NOT significant ( $p = .09$ )

TAKE HOME: The amount of money parents spent on sport lessons and instruction varied in a statistically significant way across single- and multi-sport participants. There was also a statistically significant difference in parent spending across male and female athletes.

### Spending on camps or athlete schools

		Number of sports	
		Single	Multi
Child gender	Male	\$90	\$66
	Female	\$75	\$91

Main effect of child gender is NOT significant ( $p = .92$ )  
 Main effect of number of sports is NOT significant ( $p = .76$ )  
 Interaction effect is NOT significant ( $p = .14$ )

TAKE HOME: There were no statistically significant differences across single- and multi-sport participants or males and females in the amount of money parents spent on camps or athlete schools.

### Other spending

		Number of sports	
		Single	Multi
Child gender	Male	\$31	\$10
	Female	\$39	\$7

Main effect of child gender is NOT significant ( $p = .85$ )  
 Main effect of number of sports is significant ( $p < .001^*$ )  
 Interaction effect is NOT significant ( $p = .40$ )

TAKE HOME: The amount of money parents spent on other sport-related expenditures varied in a statistically significant way across single- and multi-sport participants. There were no statistically significant differences in parent spending across male and female athletes.

### Hours spent engaged in sport

		More than 10	More than 20	More than 30
		Community type	Urban	49.4%*
Suburban	42.3%		14.0%	5.9%
Rural	45.6%		16.2%	5.8%

\*Denotes a significant difference in the horizontal rows

TAKE HOME: Athletes from urban communities were 1.16 times as likely to participate in one sport for more than 10 hours, and 1.42 times as likely to participate in more than 20 hours per week as athletes from suburban communities. Athletes from urban communities were 1.62 and 1.65 times as likely to participate in one sport for more than 30 hours per week as athletes from suburban and rural communities, respectively.

### Hours engaged in pickup or free play

		Number of sports	
		<i>Single</i>	<i>Multi</i>
Child gender	<i>Male</i>	3.03	3.56
	<i>Female</i>	2.63	3.92

Main effect of child gender is NOT significant ( $p = .90$ )  
Main effect of number of sports is significant ( $p < .001^*$ )  
Interaction effect is significant ( $p = .03^*$ )

TAKE HOME: The amount of hours athletes spent engaged in pickup or free play varied in a statistically significant way across single- and multi-sport participants. There were no statistically significant differences in hours engaged in pickup or free play across male and female athletes. Interestingly, male single-sport athletes and female multi-sport athletes spent significantly more time than male multi-sport athletes and female single-sport athletes in pickup or free play.

### Hours engaged in focused practice or drills

		Number of sports	
		<i>Single</i>	<i>Multi</i>
Child gender	<i>Male</i>	4.65	4.61
	<i>Female</i>	4.49	4.75

Main effect of child gender is NOT significant ( $p = .59$ )  
Main effect of number of sports is NOT significant ( $p = .58$ )  
Interaction effect is NOT significant ( $p = .44$ )

TAKE HOME: There were no statistically significant differences across single- and multi-sport participants or males and females in the amount of hours athletes spent engaged in focused practice or drills.

### Hours engaged in games or competition

		Number of sports	
		<i>Single</i>	<i>Multi</i>
Child gender	<i>Male</i>	3.00	3.27
	<i>Female</i>	2.81	3.34

Main effect of child gender is NOT significant ( $p = .76$ )  
Main effect of number of sports is significant ( $p = .005^*$ )  
Interaction effect is NOT significant ( $p = .38$ )

TAKE HOME: The amount of hours athletes spent engaged in games or competition varied in a statistically significant way across single- and multi-sport participants. There were no statistically significant differences in hours engaged in pickup or free play across male and female athletes.

## Desired coach training

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NOTE: For the purposes of this analysis, non-binary parents and children were excluded. Because there was only one parent and one child who identified as non-binary, group means could not be established across the dependent variables

### CPR and basic first-aid

		Parent gender	
		Male	Female
Child gender	Male	3.96	4.32
	Female	4.10	4.37

Main effect of parent gender is NOT significant ( $p = .79$ )

Main effect of child gender is significant ( $p < .001^*$ )

Interaction effect is NOT significant ( $p = .09$ )

TAKE HOME: The importance parents placed on coaches' training in CPR and basic first-aid varied in a statistically significant way across male and female athletes. There were no statistically significant differences across parent gender.

		Number of sports	
		Single	Multi
Child gender	Male	4.02	4.20
	Female	4.10	4.29

Main effect of child gender is significant ( $p = .004^*$ )

Main effect of number of sports is significant ( $p < .001^*$ )

Interaction effect is significant ( $p = .005^*$ )

TAKE HOME: The importance parents placed on coaches' training in CPR and basic first-aid varied in a statistically significant way across single- and multi-sport participants. There were also statistically significant differences in the importance parents placed on coaches' training in CPR and basic first-aid across male and female athletes. Interestingly, parents of multi-sport athletes and female single-sport athletes placed significantly more importance on coaches' training in CPR and basic first-aid.

### Physical conditioning

		Parent gender	
		Male	Female
Child gender	Male	3.96	4.19
	Female	4.12	4.16

Main effect of parent gender is NOT significant ( $p = .46$ )

Main effect of child gender is significant ( $p = .002^*$ )

Interaction effect is significant ( $p = .006^*$ )

TAKE HOME: The importance parents placed on coaches' training in physical conditioning varied in a statistically significant way across male and female athletes. There were no statistically significant differences across parent gender. Interestingly, female parents of male athletes and male parents of female athletes rated coaches' training in physical conditioning as significantly more important than female parents of female athletes and male parents of male athletes.

		Number of sports	
		Single	Multi
Child gender	Male	3.96	4.13
	Female	4.05	4.19

Main effect of child gender is significant ( $p = .002^*$ )

Main effect of number of sports is significant ( $p < .001^*$ )

Interaction effect is NOT significant ( $p = .17$ )

TAKE HOME: The importance parents placed on coaches' training in physical conditioning varied in a statistically significant way across single- and multi-sport participants. There were also statistically significant differences in the importance parents placed on coaches' training in physical conditioning across male and female athletes.

### Motivational techniques

		Parent gender	
		Male	Female
Child gender	Male	4.05	4.39
	Female	4.21	4.24

Main effect of parent gender is NOT significant ( $p = .11$ )  
 Main effect of child gender is significant ( $p = .004^*$ )  
 Interaction effect is significant ( $p < .001^*$ )

TAKE HOME: The importance parents placed on coaches' training in the use of motivational techniques varied in a statistically significant way across male and female athletes. There were no statistically significant differences across parent gender. Interestingly, female parents of male athletes and male parents of female athletes rated coaches' training in the use of motivational techniques as significantly more important than female parents of female athletes and male parents of male athletes.

		Number of sports	
		Single	Multi
Child gender	Male	4.17	4.27
	Female	4.23	4.23

Main effect of child gender is significant ( $p = .02^*$ )  
 Main effect of number of sports is NOT significant ( $p = .20$ )  
 Interaction effect is NOT significant ( $p = .21$ )

TAKE HOME: The importance parents placed on coaches' training in the use of motivational techniques did NOT vary in a statistically significant way across single- and multi-sport participants. However, there was a statistically significant difference in the importance parents placed on coaches' training in the use of motivational techniques across male and female athletes.

### Sport skills and tactics

		Parent gender	
		Male	Female
Child gender	Male	4.06	4.38
	Female	4.23	4.24

Main effect of parent gender is NOT significant ( $p = .05$ )  
 Main effect of child gender is significant ( $p = .006^*$ )  
 Interaction effect is significant ( $p < .001^*$ )

TAKE HOME: The importance parents placed on coaches' training in sport skills and tactics varied in a statistically significant way across male and female athletes. There were no statistically significant differences across parent gender. Interestingly, female parents of male athletes and male parents of female athletes rated coaches' training in sport skills and tactics as significantly more important than female parents of female athletes and male parents of male athletes.

		Number of sports	
		Single	Multi
Child gender	Male	4.18	4.26
	Female	4.25	4.24

Main effect of child gender is significant ( $p = .01^*$ )  
 Main effect of number of sports is NOT significant ( $p = .39$ )  
 Interaction effect is NOT significant ( $p = .29$ )

TAKE HOME: The importance parents placed on coaches' training in sport skills and tactics did NOT vary in a statistically significant way across single- and multi-sport participants. However, there was a statistically significant difference in the importance parents placed on coaches' training in sport skills and tactics across male and female athletes.

### General safety & Injury prevention

		Parent gender	
		Male	Female
Child gender	Male	4.11	4.31
	Female	4.56	4.57

Main effect of parent gender is NOT significant ( $p = .38$ )  
 Main effect of child gender is significant ( $p < .001^*$ )  
 Interaction effect is significant ( $p < .001^*$ )

TAKE HOME: The importance parents placed on coaches' training in general safety and injury prevention varied in a statistically significant way across male and female athletes. There were no statistically significant differences across parent gender. Interestingly, female parents and male parents of female athletes rated coaches' training in general safety and injury prevention as significantly more important than male parents of male athletes.

		Number of sports	
		Single	Multi
Child gender	Male	4.27	4.35
	Female	4.36	4.37

Main effect of child gender is significant ( $p < .001^*$ )  
 Main effect of number of sports is NOT significant ( $p = .22$ )  
 Interaction effect is NOT significant ( $p = .35$ )

TAKE HOME: The importance parents placed on coaches' training in general safety and injury prevention did NOT vary in a statistically significant way across single- and multi-sport participants. However, there was a statistically significant difference in the importance parents placed on coaches' training in general safety and injury across male and female athletes.

### Concussion prevention & management

		Parent gender	
		Single	Multi
Child gender	Male	3.98	4.43
	Female	4.21	4.28

Main effect of parent gender is NOT significant ( $p = .19$ )  
 Main effect of child gender is significant ( $p = .004^*$ )  
 Interaction effect is significant ( $p < .001^*$ )

TAKE HOME: The importance parents placed on coaches' training in concussion prevention and management varied in a statistically significant way across male and female athletes. There were no statistically significant differences across parent gender. Interestingly, female parents of male athletes and male parents of female athletes rated coaches' training in concussion prevention and management as significantly more important than female parents of female athletes and male parents of male athletes.

		Number of sports	
		Single	Multi
Child gender	Male	4.19	4.25
	Female	4.31	4.29

Main effect of child gender is significant ( $p = .02^*$ )  
 Main effect of number of sports is NOT significant ( $p = .10$ )  
 Interaction effect is NOT significant ( $p = .90$ )

TAKE HOME: The importance parents placed on coaches' training in concussion prevention and management did NOT vary in a statistically significant way across single- and multi-sport participants. However, there was a statistically significant difference in the importance parents placed on coaches' training in concussion prevention and management across male and female athletes.



## Important sport outcomes

Bivariate correlation matrix	Age of first regular participation	Number of sports	Weekly hours of participation	Family sport spending	Fun	Positive peer relationships	Social and emotional skills	Sport skills and tactics	Physical health	Mental health	Preferential college admission	College athletic scholarship	Opportunity to play professionally
Age of first "regular" participation	-----												
Number of sports	-.06**	-----											
Weekly hours of participation	.10**	.02	-----										
Family sport spending	-.04*	-.07**	.12**	-----									
Fun	.01	-.04*	.08**	.05**	-----								
Positive peer relationships	.02	-.09**	.08**	.06**	.62***	-----							
Social and emotional skills	.02	-.07**	.08**	.05**	.60***	.72***	-----						
Sport skills and tactics	-.01	-.00	.11**	.08**	.46***	.53***	.54***	-----					
Physical health	.06**	-.07**	.09**	.06**	.53***	.59***	.61***	.57***	-----				
Mental health	.04*	-.06**	.11**	.06**	.54***	.60***	.64***	.53***	.67***	-----			
Preferential college admission	-.01	.13**	.14**	.04*	.09**	.12**	.16**	.32***	.19**	.21***	-----		
College athletic scholarship	-.01	.11**	.15**	.05**	.09**	.10**	.15**	.30***	.17**	.18**	.87***	-----	
Opportunity to play professionally	.03	.14**	.14**	.10**	.07**	.09**	.13**	.28***	.15**	.15**	.81***	.85***	-----

\*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

TAKE HOME: Across the sample, the athlete's age of first regular sport participation was positively associated with parents' ratings of physical and mental health. This means that parents whose children started sports later, rated physical and mental health as significantly more important. Across the sample, the number of sports in which an athlete was a regular participant was inversely associated with five of the first six outcomes and positively associated with the last three. This is interesting, as parents who want their children to receive preferential admission to college, earn a college athletic scholarship, and/or have an opportunity to play professionally are more likely to have children who play more sports regularly. Finally, across the sample, the athlete's weekly hours of sport participation and family sport spending were both positively associated with parents' ratings of sport outcomes. This means that parents who spent more on their children's sport participation and whose children spent more hours weekly participating in sport, rated these variables as significantly more important.

## Fun

		Parent gender	
		Male	Female
Child gender	Male	4.36	4.60
	Female	4.46	4.50

Main effect of parent gender is NOT significant ( $p = .19$ )  
 Main effect of child gender is significant ( $p < .001^*$ )  
 Interaction effect is significant ( $p < .001^*$ )

TAKE HOME: The importance parents placed on fun as a sport outcome varied in a statistically significant way across male and female athletes. There were no statistically significant differences across parent gender. Interestingly, female parents of male athletes and male parents of female athletes rated fun as significantly more important than female parents of female athletes and male parents of male athletes.

		Number of sports	
		Single	Multi
Child gender	Male	4.53	4.48
	Female	4.51	4.48

Main effect of child gender is NOT significant ( $p = .10$ )  
 Main effect of number of sports is NOT significant ( $p = .23$ )  
 Interaction effect is NOT significant ( $p = .81$ )

TAKE HOME: The importance parents placed on fun as a sport outcomes did NOT vary in a statistically significant way across single- and multi-sport participants or across male and female athletes.

## Positive peer relationships

		Parent gender	
		Male	Female
Child gender	Male	4.15	4.50
	Female	4.35	4.35

Main effect of parent gender is NOT significant ( $p = .23$ )  
 Main effect of child gender is significant ( $p < .001^*$ )  
 Interaction effect is significant ( $p < .001^*$ )

TAKE HOME: The importance parents placed on the development of positive peer relationships varied in a statistically significant way across male and female athletes. There were no statistically significant differences across parent gender. Interestingly, female parents of male athletes and male parents of female athletes rated the development of positive peer relationships as significantly more important than female parents of female athletes and male parents of male athletes.

		Number of sports	
		Single	Multi
Child gender	Male	4.42	4.32
	Female	4.46	4.31

Main effect of child gender is significant ( $p < .001^*$ )  
 Main effect of number of sports is significant ( $p < .001^*$ )  
 Interaction effect is significant ( $p = .49$ )

TAKE HOME: The importance parents placed on athletes' development of positive peer relationships varied in a statistically significant way across single- and multi-sport participants. Moreover, there was a statistically significant difference in the importance parents placed on athletes' development of positive peer relationships across male and female athletes.

### Social and emotional skills

		Parent gender	
		Male	Female
Child gender	Male	4.14	4.51
	Female	4.31	4.33

Main effect of parent gender is significant ( $p = .04^*$ )  
 Main effect of child gender is significant ( $p < .001^*$ )  
 Interaction effect is significant ( $p < .001^*$ )

TAKE HOME: The importance parents placed on the development of athletes' social and emotional skills varied in a statistically significant way across male and female athletes. There were also statistically significant differences across parent gender. Interestingly, female parents of male athletes and male parents of female athletes rated the development of athletes' social and emotional skills as significantly more important than female parents of female athletes and male parents of male athletes.

		Number of sports	
		Single	Multi
Child gender	Male	4.44	4.33
	Female	4.39	4.30

Main effect of child gender is significant ( $p < .001^*$ )  
 Main effect of number of sports is significant ( $p = .002^*$ )  
 Interaction effect is NOT significant ( $p = .76$ )

TAKE HOME: The importance parents placed on athletes' development of social and emotional skills varied in a statistically significant way across single- and multi-sport participants. Moreover, there was a statistically significant difference in the importance parents placed on athletes' development of social and emotional skills across male and female athletes.

### Sport skills & tactics

		Parent gender	
		Male	Female
Child gender	Male	4.09	4.38
	Female	4.24	4.20

Main effect of parent gender is NOT significant ( $p = .22$ )  
 Main effect of child gender is significant ( $p = .001^*$ )  
 Interaction effect is significant ( $p < .001^*$ )

TAKE HOME: The importance parents placed on the development of sport skills and tactics varied in a statistically significant way across male and female athletes. There were no statistically significant differences across parent gender. Interestingly, female parents of male athletes and male parents of female athletes rated the development of sport skills and tactics as significantly more important than female parents of female athletes and male parents of male athletes.

		Number of sports	
		Single	Multi
Child gender	Male	4.19	4.27
	Female	4.20	4.21

Main effect of child gender is significant ( $p < .001^*$ )  
 Main effect of number of sports is NOT significant ( $p = .22$ )  
 Interaction effect is NOT significant ( $p = .30$ )

TAKE HOME: The importance parents placed on athletes' development of sport skills and tactics did NOT vary in a statistically significant way across single- and multi-sport participants. However, there was a statistically significant difference in the importance parents placed on athletes' development of sport skills and tactics across male and female athletes.

### Physical health

		Parent gender	
		Male	Female
Child gender	Male	4.19	4.51
	Female	4.40	4.36

Main effect of parent gender is NOT significant ( $p = .35$ )  
 Main effect of child gender is significant ( $p < .001^*$ )  
 Interaction effect is significant ( $p < .001^*$ )

TAKE HOME: The importance parents placed on physical health varied in a statistically significant way across male and female athletes. There were no statistically significant differences across parent gender. Interestingly, female parents of male athletes and male parents of female athletes rated physical health as significantly more important than female parents of female athletes and male parents of male athletes.

		Number of sports	
		Single	Multi
Child gender	Male	4.37	4.37
	Female	4.47	4.34

Main effect of child gender is significant ( $p < .001^*$ )  
 Main effect of number of sports is NOT significant ( $p = .06$ )  
 Interaction effect is NOT significant ( $p = .05$ )

TAKE HOME: The importance parents placed on athletes' physical health did NOT vary in a statistically significant way across single- and multi-sport participants. However, there was a statistically significant difference in the importance parents placed on athletes' physical health across male and female athletes.

### Mental health

		Parent gender	
		Male	Female
Child gender	Male	4.14	4.46
	Female	4.35	4.31

Main effect of parent gender is NOT significant ( $p = .18$ )  
 Main effect of child gender is significant ( $p < .001^*$ )  
 Interaction effect is significant ( $p < .001^*$ )

TAKE HOME: The importance parents placed on mental health varied in a statistically significant way across male and female athletes. There were no statistically significant differences across parent gender. Interestingly, female parents of male athletes and male parents of female athletes rated mental health as significantly more important than female parents of female athletes and male parents of male athletes.

		Number of sports	
		Single	Multi
Child gender	Male	4.36	4.31
	Female	4.40	4.29

Main effect of child gender is significant ( $p = .004^*$ )  
 Main effect of number of sports is significant ( $p = .02^*$ )  
 Interaction effect is NOT significant ( $p = .37$ )

TAKE HOME: The importance parents placed on athletes' mental health varied in a statistically significant way across single- and multi-sport participants. Moreover, there was a statistically significant difference in the importance parents placed on athletes' mental health across male and female athletes.

### Preferential admission to college

		Parent gender	
		Male	Female
Child gender	Male	3.33	3.14
	Female	3.45	3.31

Main effect of parent gender is NOT significant ( $p = .17$ )  
 Main effect of child gender is NOT significant ( $p = .17$ )  
 Interaction effect is NOT significant ( $p = .44$ )

TAKE HOME: The importance parents placed on gaining preferential admission to college did NOT vary in a statistically significant way across male and female athletes. There were also no statistically significant differences across parent gender.

		Number of sports	
		Single	Multi
Child gender	Male	3.17	3.24
	Female	3.30	3.36

Main effect of child gender is NOT significant ( $p = .07$ )  
 Main effect of number of sports is NOT significant ( $p = .28$ )  
 Interaction effect is NOT significant ( $p = .91$ )

TAKE HOME: The importance parents placed on gaining preferential admission to college did NOT vary in a statistically significant way across single- and multi-sport participants or across male and female athletes.

### College athletic scholarship

		Parent gender	
		Male	Female
Child gender	Male	3.27	3.06
	Female	3.31	3.23

Main effect of parent gender is NOT significant ( $p = .18$ )  
 Main effect of child gender is NOT significant ( $p = .24$ )  
 Interaction effect is NOT significant ( $p = .23$ )

TAKE HOME: The importance parents placed on earning a college scholarship did NOT vary in a statistically significant way across male and female athletes. There were also no statistically significant differences across parent gender.

		Number of sports	
		Single	Multi
Child gender	Male	3.10	3.17
	Female	3.24	3.25

Main effect of child gender is NOT significant ( $p = .13$ )  
 Main effect of number of sports is NOT significant ( $p = .52$ )  
 Interaction effect is NOT significant ( $p = .58$ )

TAKE HOME: The importance parents placed on earning a college athletic scholarship did NOT vary in a statistically significant way across single- and multi-sport participants or across male and female athletes.

### Professional playing opportunity

		Parent gender	
		Male	Female
Child gender	Male	3.14	2.95
	Female	3.11	3.16

Main effect of parent gender is NOT significant ( $p = .29$ )  
 Main effect of child gender is NOT significant ( $p = .24$ )  
 Interaction effect is significant ( $p = .04^*$ )

TAKE HOME: The importance parents placed on a professional playing opportunity did NOT vary in a statistically significant way across male and female athletes. There were also no statistically significant differences across parent gender. However, perhaps surprisingly, female parents of male athletes rated having a professional playing opportunity significantly lower than male parents and female parents of female athletes.

		Number of sports	
		<i>Single</i>	<i>Multi</i>
Child gender	<i>Male</i>	2.90	3.07
	<i>Female</i>	3.01	3.20

Main effect of child gender is NOT significant ( $p = .10$ )  
 Main effect of number of sports is significant ( $p = .002^*$ )  
 Interaction effect is NOT significant ( $p = .91$ )

TAKE HOME: The importance parents placed on athletes' opportunity to play professionally varied in a statistically significant way across single- and multi-sport participants. However, there were no statistically significant differences in the importance parents placed on athletes' mental health across male and female athletes.

## Sources of pressure on athletes

Bivariate correlation matrix	Age of first regular participation	Number of sports	Weekly hours of participation	Family sport spending	Parents	Siblings	Peers	Coaches	Sport organization	Community	Broader society
Age of first "regular" participation	-----										
Number of sports	-.06**	-----									
Weekly hours of participation	.10**	.02	-----								
Family sport spending	-.04*	-.07**	.12**	-----							
Parents	-.02*	.13**	.07**	.03	-----						
Siblings	.01	.14**	.05**	-.01	.68***	-----					
Peers	.01	.11**	.12**	.03	.62***	.61***	-----				
Coaches	.03*	.05**	.13**	.06**	.52***	.45***	.62***	-----			
Sport organization	.01	.10**	.10**	.04*	.59***	.57***	.60***	.65***	-----		
Community	.02	.13**	.06**	.00	.61***	.66***	.60***	.54***	.70***	-----	
Broader society	.01	.11**	.04*	.01	.61**	.66***	.59**	.50***	.67**	.79***	-----

\*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

TAKE HOME: Across the sample, the athlete's age of first regular sport participation and family spending on sport were not meaningfully related to parents' ratings of pressure. However, the number of sports in which an athlete was a regular participant and the weekly hours each athlete spent engaged in sport were positively and significantly associated with all seven sources of pressure. This is interesting, as more sports and more hours of participation in each sport is linked to children feeling more pressure from a variety of proximal individuals and distal environments.

## Parents

		Parent gender	
		Male	Female
Child gender	Male	3.21	2.90
	Female	2.98	3.17

Main effect of parent gender is significant ( $p < .001^*$ )  
 Main effect of child gender is significant ( $p = .001^*$ )  
 Interaction effect is significant ( $p < .001^*$ )

**TAKE HOME:** The way parents rated themselves as a source of pressure on athletes varied in a statistically significant way across male and female athletes. There were also statistically significant differences across parent gender. Interestingly, male parents of male athletes and female parents of female athletes rated themselves as a significantly greater source of pressure than male parents of female athletes and male parents of female athletes.

		Number of sports	
		Single	Multi
Child gender	Male	2.93	3.07
	Female	3.08	3.16

Main effect of child gender is significant ( $p = .02^*$ )  
 Main effect of number of sports is significant ( $p = .01^*$ )  
 Interaction effect is NOT significant ( $p = .46$ )

**TAKE HOME:** The way parents rated themselves as a source of pressure on athletes varied in a statistically significant way across single- and multi-sport participants. Moreover, there was a statistically significant difference in the way parents rated themselves as a source of pressure on athletes across male and female athletes.

## Siblings

		Parent gender	
		Male	Female
Child gender	Male	2.97	2.65
	Female	2.82	2.91

Main effect of parent gender is NOT significant ( $p = .09$ )  
 Main effect of child gender is NOT significant ( $p = .19$ )  
 Interaction effect is significant ( $p < .001^*$ )

**TAKE HOME:** The way parents rated athletes' siblings as a source of pressure on athletes did NOT vary in a statistically significant way across male and female athletes. There were also no statistically significant differences across parent gender. Interestingly however, male parents of male athletes and female parents of female athletes rated athletes' siblings as a significantly greater source of pressure than male parents of female athletes and male parents of female athletes.

		Number of sports	
		Single	Multi
Child gender	Male	2.65	2.83
	Female	2.80	2.93

Main effect of child gender is significant ( $p = .01^*$ )  
 Main effect of number of sports is significant ( $p < .001^*$ )  
 Interaction effect is NOT significant ( $p = .53$ )

**TAKE HOME:** The way parents rated their athletes' siblings as a source of pressure on athletes varied in a statistically significant way across single- and multi-sport participants. Moreover, there was a statistically significant difference in the way parents rated their athletes' siblings as a source of pressure on athletes across male and female athletes.



## Peers

		Parent gender	
		Male	Female
Child gender	Male	3.29	3.07
	Female	3.20	3.16

Main effect of parent gender is significant ( $p = .04^*$ )  
 Main effect of child gender is NOT significant ( $p = .18$ )  
 Interaction effect is significant ( $p = .02^*$ )

TAKE HOME: The way parents rated athletes' peers as a source of pressure on athletes did NOT vary in a statistically significant way across male and female athletes. There were statistically significant differences across parent gender. Moreover, male parents of male athletes and female parents of female athletes rated athletes' peers as a significantly greater source of pressure than male parents of female athletes and male parents of female athletes.

		Number of sports	
		Single	Multi
Child gender	Male	3.00	3.22
	Female	3.13	3.19

Main effect of child gender is NOT significant ( $p = .36$ )  
 Main effect of number of sports is significant ( $p < .001^*$ )  
 Interaction effect is significant ( $p = .04^*$ )

TAKE HOME: The way parents rated their athletes' peers as a source of pressure on athletes varied in a statistically significant way across single- and multi-sport participants. However, there were no statistically significant differences in the way parents rated their athletes' peers as a source of pressure on athletes across male and female athletes. Interestingly, parents of multi-sport athletes and female parents of single-sport athletes rated peers as a significantly greater source of pressure than parents of male single-sport athletes.

## Coaches

		Parent gender	
		Male	Female
Child gender	Male	3.40	3.31
	Female	3.28	3.36

Main effect of parent gender is significant ( $p = .04^*$ )  
 Main effect of child gender is significant ( $p = .03^*$ )  
 Interaction effect is significant ( $p = .005^*$ )

TAKE HOME: The way parents rated coaches as a source of pressure on athletes varied in a statistically significant way across male and female athletes. There were also statistically significant differences across parent gender. Interestingly, male parents of male athletes and female parents of female athletes rated coaches as a significantly greater source of pressure than male parents of female athletes and male parents of female athletes.

		Number of sports	
		Single	Multi
Child gender	Male	3.27	3.37
	Female	3.34	3.35

Main effect of child gender is NOT significant ( $p = .46$ )  
 Main effect of number of sports is NOT significant ( $p = .17$ )  
 Interaction effect is NOT significant ( $p = .21$ )

TAKE HOME: The way parents rated coaches as a source of pressure on athletes did NOT vary in a statistically significant way across male and female athletes or across parent gender.

### Sport organizations

		Parent gender	
		Male	Female
Child gender	Male	3.20	2.98
	Female	3.13	3.14

Main effect of parent gender is significant ( $p = .04^*$ )  
 Main effect of child gender is NOT significant ( $p = .05$ )  
 Interaction effect is significant ( $p = .004^*$ )

TAKE HOME: The way parents rated their children's sport organizations as a source of pressure on athletes did NOT vary in a statistically significant way across male and female athletes. There were, however, statistically significant differences across parent gender. Interestingly, male parents of male athletes and female parents of female athletes rated their children's sport organizations as a significantly greater source of pressure than male parents of female athletes and male parents of female athletes.

		Number of sports	
		Single	Multi
Child gender	Male	2.95	3.11
	Female	3.15	3.14

Main effect of child gender is significant ( $p = .01^*$ )  
 Main effect of number of sports is NOT significant ( $p = .09$ )  
 Interaction effect is significant ( $p = .04^*$ )

TAKE HOME: The way parents rated their athletes' sport organizations as a source of pressure on athletes did NOT vary in a statistically significant way across single- and multi-sport participants. However, there were statistically significant differences in the way parents rated their athletes' sport organizations as a source of pressure on athletes across male and female athletes. Additionally, parents of multi-sport athletes and female parents of single-sport athletes rated their athletes' sport organizations as a significantly greater source of pressure than parents of male single-sport athletes.

### Community

		Parent gender	
		Male	Female
Child gender	Male	3.08	2.82
	Female	2.86	3.03

Main effect of parent gender is NOT significant ( $p = .10$ )  
 Main effect of child gender is NOT significant ( $p = .14$ )  
 Interaction effect is significant ( $p < .001^*$ )

TAKE HOME: The way parents rated their community as a source of pressure on athletes did NOT vary in a statistically significant way across male and female athletes. There were also no statistically significant differences across parent gender. Interestingly however, male parents of male athletes and female parents of female athletes rated their community as a significantly greater source of pressure than male parents of female athletes and male parents of female athletes.

		Number of sports	
		Single	Multi
Child gender	Male	2.81	2.97
	Female	2.99	3.00

Main effect of child gender is significant ( $p = .04^*$ )  
 Main effect of number of sports is significant ( $p = .04^*$ )  
 Interaction effect is NOT significant ( $p = .08$ )

TAKE HOME: The way parents rated their community as a source of pressure on athletes varied in a statistically significant way across single- and multi-sport participants. Moreover, there was a statistically significant difference in the way parents rated their community as a source of pressure on athletes across male and female athletes.

**Broader society**

		Parent gender	
		Male	Female
Child gender	Male	3.02	2.80
	Female	2.85	3.01

Main effect of parent gender is NOT significant ( $p = .11$ )  
 Main effect of child gender is NOT significant ( $p = .11$ )  
 Interaction effect is significant ( $p < .001^*$ )

TAKE HOME: The way parents rated society at-large as a source of pressure on athletes did NOT vary in a statistically significant way across male and female athletes. There were also no statistically significant differences across parent gender. Interestingly however, male parents of male athletes and female parents of female athletes rated society at-large as a significantly greater source of pressure than male parents of female athletes and male parents of female athletes.

		Number of sports	
		Single	Multi
Child gender	Male	2.79	2.92
	Female	2.97	2.98

Main effect of child gender is significant ( $p = .02^*$ )  
 Main effect of number of sports is NOT significant ( $p = .10$ )  
 Interaction effect is NOT significant ( $p = .18$ )

TAKE HOME: The way parents rated society at-large siblings as a source of pressure on athletes did NOT vary in a statistically significant way across single- and multi-sport participants. However, there was a statistically significant difference in the way parents rated society at-large as a source of pressure on athletes across male and female athletes.

## Athlete sport experiences

Bivariate correlation matrix	Age of first regular participation	Number of sports	Weekly hours of participation	Family sport spending	Enjoyment	Competence	Stress	Commitment
	Age of first "regular" participation	-----						
Number of sports	-.06**	-----						
Weekly hours of participation	.10**	.02	-----					
Family sport spending	-.04*	-.07**	.12**	-----				
Enjoyment	-.01	.02	.10**	.07**	-----			
Competence	-.00	.06**	.13**	.10**	.62***	-----		
Stress	-.00	.13**	.04*	.04*	.47***	.20***	-----	
Commitment	.02	.05**	.17**	.10**	.55***	.63***	.26***	-----

\*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

**TAKE HOME:** Across the sample, the athlete's age of first regular sport participation was not significantly related to parents' ratings of the athlete's enjoyment, competence, stress, or commitment. However, the number of sports in which an athlete was a regular participant, the weekly hours each athlete spent engaged in sport, and family sport spending were positively and significantly associated with these four sport experiences. For weekly hours in sport and family sport spending, correlations were more robust for enjoyment, competence, and commitment; however, for number of sports played, correlations were more robust for stress.

### Enjoyment

		Parent gender	
		Male	Female
Child gender	Male	5.78	5.92
	Female	5.87	5.75

Main effect of parent gender is NOT significant ( $p = .15$ )

Main effect of child gender is significant ( $p < .001^*$ )

Interaction effect is significant ( $p = .007^*$ )

**TAKE HOME:** The way parents rated their children's enjoyment varied in a statistically significant way across male and female athletes. There were, however, no statistically significant differences across parent gender. Interestingly, male parents of female athletes and female parents of male athletes rated their children's enjoyment as significantly higher than male parents of male athletes and female parents of female athletes.

		Number of Sports	
		Single	Multi
Child Gender	Male	5.83	5.87
	Female	5.76	5.78

Main effect of child gender is significant ( $p < .001^*$ )

Main effect of number of sports is NOT significant ( $p = .61$ )

Interaction effect is NOT significant ( $p = .87$ )

**TAKE HOME:** The way parents rated their children's enjoyment did NOT vary in a statistically significant way across single- and multi-sport athletes. There were, however, statistically significant differences across athlete gender.

## Competence

		Parent gender	
		Male	Female
Child gender	Male	5.45	5.60
	Female	5.46	5.47

Main effect of parent gender is NOT significant ( $p = .17$ )  
 Main effect of child gender is significant ( $p = .005^*$ )  
 Interaction effect is significant ( $p = .04^*$ )

TAKE HOME: The way parents rated their children's competence varied in a statistically significant way across male and female athletes. There were, however, no statistically significant differences across parent gender. Interestingly, male parents and female parents of female athletes rated their children's competence as significantly lower than male parents of female athletes.

		Number of sports	
		Single	Multi
Child gender	Male	5.48	5.54
	Female	5.43	5.48

Main effect of child gender is significant ( $p = .02^*$ )  
 Main effect of number of sports is NOT significant ( $p = .30$ )  
 Interaction effect is NOT significant ( $p = .96$ )

TAKE HOME: The way parents rated their children's competence did NOT vary in a statistically significant way across single- and multi-sport athletes. There were, however, statistically significant differences across athlete gender.

## Stress

		Parent gender	
		Male	Female
Child gender	Male	4.07	3.65
	Female	4.16	3.94

Main effect of parent gender is significant ( $p = .03^*$ )  
 Main effect of child gender is significant ( $p = .002^*$ )  
 Interaction effect is significant ( $p = .02^*$ )

TAKE HOME: The way parents rated their children's stress varied in a statistically significant way across male and female athletes. There were also statistically significant differences across parent gender. Interestingly, male parents and female parents of female athletes rated their children's stress as significantly lower than male parents of female athletes.

		Number of sports	
		Single	Multi
Child gender	Male	3.62	3.89
	Female	3.92	4.00

Main effect of child gender is significant ( $p = .02^*$ )  
 Main effect of number of sports is significant ( $p = .02^*$ )  
 Interaction effect is NOT significant ( $p = .20$ )

TAKE HOME: The way parents rated their children's stress varied in a statistically significant way across single- and multi-sport athletes. Additionally, there were statistically significant differences across athlete gender.

## Commitment

		Parent gender	
		Male	Female
Child gender	Male	5.31	5.40
	Female	5.31	5.37

Main effect of parent gender is NOT significant ( $p = .09$ )  
 Main effect of child gender is NOT significant ( $p = .20$ )  
 Interaction effect is NOT significant ( $p = .20$ )

TAKE HOME: The way parents rated their children's commitment did NOT vary in a statistically significant way across male and female athletes or across parent gender.

		Number of sports	
		<i>Single</i>	<i>Multi</i>
Child gender	<i>Male</i>	5.28	5.38
	<i>Female</i>	5.32	5.38

Main effect of child gender is NOT significant ( $p = .15$ )

Main effect of number of sports is NOT significant ( $p = .19$ )

Interaction effect is NOT significant ( $p = .77$ )

TAKE HOME: The way parents rated their children's commitment did NOT vary in a statistically significant way across single- and multi-sport athletes or across athlete gender.

## **Utilized modes of transportation**

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It was not hypothesized that these data would cause or be caused by any of the other variables in the variable set; therefore, no inferential statistics were calculated on parents' reports of children's utilized modes of transportation. Please reference the DESCRIPTIVE STTISTICS section for a better understanding of these data.

## **Sport discontinuation**

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Retrospective participation data (e.g., sport participation, desired coach training, important sport outcomes, sources of pressure on athletes, athlete sport experiences, utilized modes of transportation, and desired parent resources) were only collected for the sports in which parents reported athletes being current participants. Therefore, no inferential statistics were calculated on parents' reports of children's sport discontinuation. Please reference the DESCRIPTIVE STTISTICS section for a better understanding of these data.



## **Desired parent resources**

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Regression and group difference analyses indicated that desired parent resources were not related to any other variables in the dataset and did not differ across age, gender, race, or socioeconomic class. Therefore, no inferential statistics were calculated on desired parent resources. Please reference the DESCRIPTIVE STTISTICS section for a better understanding of these data

**COMPARISON OF NATIONAL SAMPLE  
TO COMMUNITY SAMPLES OF INTEREST**

## Family demographics

	National	Mobile, AL	Los Angeles, CA	Denver, CO	Hawaii	Baltimore, MD	Southeast Michigan	New York City	Philadelphia, PA + Camden, NJ	Salt Lake City, UT	Seattle, WA	Western New York	Columbus, OH
<i>n</i> =	1032	51	75	54	52	55	63	63	55	53	53	57	53
<i>Parent age</i>	40.76	35.27	40.11	41.54	42.77	35.24	41.29	36.21	39.60	38.70	39.17	40.11	39.19
<i>Parent gender (male)</i>	294	9	35	15	14	19	19	28	16	20	15	18	19
<i>Parent race (White)</i>	741	31	40	38	11	13	52	33	31	47	32	50	42
<i>Annual household income (x 1000)</i>	90.9	117.4	111.2	148.7	96.2	111.5	105.5	102.1	62.4	85.8	141.4	82.8	92.5
<i>Number of children</i>	1.90	2.00	1.80	1.93	2.08	1.98	2.06	1.68	1.93	2.36	1.91	2.25	2.13
<i>Athlete age</i>	12.50	11.78	12.23	11.70	12.33	11.62	12.41	12.24	13.09	12.40	11.74	13.25	1.17
<i>Athlete gender (male)</i>	531	31	36	30	30	25	32	36	32	29	25	27	24
<i>Athlete race (White)</i>	732	30	38	38	11	12	50	32	31	47	31	49	42

## Sport participation

	National	Mobile, AL	Los Angeles, CA	Denver, CO	Hawaii	Baltimore, MD	Southeast Michigan	New York City	Philadelphia, PA + Camden, NJ	Salt Lake City, UT	Seattle, WA	Western New York	Columbus, OH
<i>n</i> =	1032	51	75	54	52	55	63	63	55	53	53	57	53
<i>Number of sports</i>	2.01	3.52	3.24	2.35	2.93	5.07	1.91	3.54	2.82	2.33	2.48	2.35	3.16
<i>Hours of weekly participation</i>	11.87	11.98	8.39	9.29	9.76	14.07	10.92	10.69	12.77	8.71	9.39	10.60	10.02
<i>Family sport spending (child x sport x season)</i>	693	509	691	1021	732	813	744	543	440	659	825	1138	1153
<i>Age when started</i>	7.97	7.68	7.81	7.27	8.43	7.91	7.83	7.38	7.55	8.31	7.59	7.77	7.53

## Desired coach training

	National	Mobile, AL	Los Angeles, CA	Denver, CO	Hawaii	Baltimore, MD	Southeast Michigan	New York City	Philadelphia, PA + Camden, NJ	Salt Lake City, UT	Seattle, WA	Western New York	Columbus, OH
<i>n =</i>	1032	51	75	54	52	55	63	63	55	53	53	57	53
<i>CPR and basic first-aid</i>	4.21	3.80	3.82	3.93	4.17	4.49	4.18	4.27	4.62	3.88	4.50	4.29	4.08
<i>Physical conditioning</i>	4.11	4.14	3.85	4.01	4.10	4.50	4.16	4.10	4.48	3.90	4.6	4.18	3.98
<i>Use of motivational techniques</i>	4.24	4.15	3.84	4.10	4.20	4.50	4.29	4.29	4.53	4.07	4.32	4.45	4.10
<i>Sport skills and tactics</i>	4.26	4.21	3.95	4.10	4.16	4.56	4.26	4.17	4.49	3.93	4.28	4.34	4.05
<i>General safety</i>	4.35	4.31	4.07	4.32	4.35	4.59	4.34	4.30	4.63	4.28	4.41	4.43	4.22
<i>Concussion prevention and management</i>	4.26	4.23	3.91	3.96	4.36	4.58	4.19	4.14	4.49	3.95	4.36	4.33	4.25

\*Data were collected on a scale ranging from 1-5

## Important sport outcomes

	National	Mobile, AL	Los Angeles, CA	Denver, CO	Hawaii	Baltimore, MD	Southeast Michigan	New York City	Philadelphia, PA + Camden, NJ	Salt Lake City, UT	Seattle, WA	Western New York	Columbus, OH
<i>n</i> =	1032	51	75	54	52	55	63	63	55	53	53	57	53
<i>Fun</i>	4.49	4.53	4.01	4.45	4.55	4.63	4.50	4.32	4.82	4.61	4.45	4.56	4.53
<i>Peer relationships</i>	4.35	4.33	4.03	4.31	4.35	4.53	4.29	4.22	4.56	4.33	4.25	4.53	4.29
<i>Social skills</i>	4.33	4.25	4.02	4.37	4.40	4.61	4.36	4.29	4.60	4.32	4.28	4.39	4.31
<i>Sport skills</i>	4.24	4.32	3.88	4.16	4.24	4.53	4.26	4.23	4.57	4.04	4.17	4.13	4.09
<i>Physical health</i>	4.37	4.38	4.01	4.41	4.32	4.64	4.37	4.27	4.69	4.43	4.23	4.40	4.34
<i>Mental health</i>	4.33	4.35	3.91	4.32	4.26	4.57	4.35	4.25	4.55	4.30	4.20	4.36	4.23
<i>College admission</i>	3.30	3.36	3.24	2.78	3.19	3.87	3.14	3.85	3.46	2.57	3.11	3.00	2.95
<i>College scholarship</i>	3.22	3.28	3.19	2.67	3.15	3.80	3.02	3.77	3.36	2.48	2.95	2.83	2.88
<i>Professional opportunity</i>	3.13	3.09	2.99	2.46	2.99	3.63	2.82	3.76	3.30	2.36	2.74	2.80	2.80

\*Data were collected on a scale ranging from 1-5

## Sources of pressure on athletes

	National	Mobile, AL	Los Angeles, CA	Denver, CO	Hawaii	Baltimore, MD	Southeast Michigan	New York City	Philadelphia, PA + Camden, NJ	Salt Lake City, UT	Seattle, WA	Western New York	Columbus, OH
<i>n</i> =	1032	51	75	54	52	55	63	63	55	53	53	57	53
<i>Parents</i>	3.09	2.75	3.07	2.74	3.36	2.77	3.12	3.47	3.07	3.00	3.33	2.99	3.13
<i>Siblings</i>	2.88	2.44	2.89	2.55	2.83	2.74	2.76	3.24	2.80	2.66	2.95	2.58	2.69
<i>Peers</i>	3.18	3.10	3.27	2.87	3.34	2.92	3.22	3.58	3.04	2.89	3.25	2.99	3.27
<i>Coaches</i>	3.37	3.21	3.42	3.08	3.56	3.08	3.45	3.65	3.17	3.16	3.40	3.10	3.33
<i>Sport organization</i>	3.13	3.03	3.20	2.89	3.17	2.85	3.18	3.57	2.97	2.88	3.07	2.82	2.97
<i>Community</i>	2.99	2.87	3.16	2.58	3.18	2.77	2.92	3.45	2.74	2.75	2.94	2.62	2.86
<i>Broader society</i>	2.95	2.91	3.22	2.51	3.08	2.72	3.00	3.43	2.71	2.74	2.93	2.59	2.88

\*Data were collected on a scale ranging from 1-5

## Sport experiences

	National	Mobile, AL	Los Angeles, CA	Denver, CO	Hawaii	Baltimore, MD	Southeast Michigan	New York City	Philadelphia, PA + Camden, NJ	Salt Lake City, UT	Seattle, WA	Western New York	Columbus, OH
<i>n</i> =	1032	51	75	54	52	55	63	63	55	53	53	57	53
<i>Enjoyment</i>	5.81	5.85	5.21	5.77	5.63	6.18	6.14	5.76	6.17	5.74	5.78	5.86	5.95
<i>Competence</i>	5.53	5.35	4.81	5.10	5.32	5.94	5.82	5.69	5.88	5.33	5.28	5.45	5.50
<i>Stress</i>	3.91	3.65	4.02	3.36	4.46	4.39	3.80	4.17	3.69	3.85	3.93	3.26	3.91
<i>Commitment</i>	5.37	5.26	4.88	4.67	5.66	5.75	5.27	5.61	5.62	5.02	5.22	5.50	5.50

\*Data were collected on a scale ranging from 1-7



## Utilized modes of transportation

	National	Mobile, AL	Los Angeles, CA	Denver, CO	Hawaii	Baltimore, MD	Southeast Michigan	New York City	Philadelphia, PA + Camden, NJ	Salt Lake City, UT	Seattle, WA	Western New York	Columbus, OH
<i>n</i> =	1032	51	75	54	52	55	63	63	55	53	53	57	53
<i>Parent</i>	66.16%	66.73%	56.90%	70.75%	67.94%	60.93%	65.85%	49.01%	64.71%	82.30%	65.56%	71.50%	77.83%
<i>Carpool</i>	7.21%	10.59%	8.66%	7.67%	5.55%	9.18%	6.39%	7.39%	5.43%	4.80%	7.03%	3.84%	6.92%
<i>Program</i>	5.75%	5.46%	4.82%	2.48%	3.89%	8.27%	5.95%	7.30%	4.05%	1.97%	5.25%	3.79%	5.10%
<i>School bus</i>	8.97%	7.59%	5.97%	3.53%	3.91%	8.63%	9.46%	7.53%	7.89%	4.52%	31.81%	12.88%	8.38%
<i>City bus</i>	1.26%	1.14%	4.12%	0.25%	0.63%	6.41%	8.03%	3.93%	1.40%	0.00%	21.23%	1.28%	2.67%
<i>Subway or train</i>	1.00%	0.62%	2.85%	0.37%	0.10%	4.66%	0.11%	5.82%	0.58%	0.00%	4.00%	0.22%	2.32%
<i>Taxi, Uber, or Lyft</i>	1.12%	3.21%	3.56%	0.25%	4.17%	5.29%	0.30%	4.74%	1.12%	0.00%	1.99%	0.08%	1.81%
<i>By foot</i>	2.72%	4.97%	5.56%	2.64%	0.94%	5.86%	2.71%	3.94%	4.88%	2.68%	3.75%	2.39%	3.24%
<i>By bicycle</i>	1.57%	1.10%	3.57%	5.10%	0.42%	3.42%	4.24%	3.99%	1.53%	1.72%	1.29%	1.61%	3.45%

NOTE: The sum score across all modes of transportation did not equal 100% for all parent respondents. Therefore, the columns depicted in this table do not sum to 100%. Values should therefore be considered close approximations of families' actual transportation behavior.

## Sport discontinuation

	National	Mobile, AL	Los Angeles, CA	Denver, CO	Hawaii	Baltimore, MD	Southeast Michigan	New York City	Philadelphia, PA + Camden, NJ	Salt Lake City, UT	Seattle, WA	Western New York	Columbus, OH
<i>n</i> =	1032	51	75	54	52	55	63	63	55	53	53	57	53
<i>Age when started</i>	7.65	7.33	7.91	7.04	7.67	7.12	6.84	7.37	7.89	8.62	7.36	8.00	6.95
<i>Age when done</i>	10.53	10.05	10.67	9.80	9.80	9.83	10.62	9.81	11.08	11.80	10.09	11.34	9.68
<i>Years played</i>	2.87	2.72	2.76	2.76	2.13	2.71	3.78	2.44	3.19	3.18	2.73	3.34	2.73

## Desired parent resources

	National	Mobile, AL	Los Angeles, CA	Denver, CO	Hawaii	Baltimore, MD	Southeast Michigan	New York City	Philadelphia, PA + Camden, NJ	Salt Lake City, UT	Seattle, WA	Western New York	Columbus, OH
<i>n</i> =	1032	51	75	54	52	55	63	63	55	53	53	57	53
<i>Affordable teams</i>	5.46	5.51	4.79	5.80	5.11	5.31	5.20	5.63	5.80	5.37	5.40	5.56	5.41
<i>Appropriate competitive level</i>	5.33	5.72	4.71	5.01	4.91	6.09	4.98	5.65	5.81	5.05	5.34	5.45	5.38
<i>Expectations</i>	5.33	5.67	4.86	5.07	5.21	5.38	5.39	5.77	5.63	4.88	5.30	5.22	5.33
<i>Find quality coaching</i>	5.33	5.69	4.82	5.01	5.31	5.37	5.41	5.74	5.60	4.86	5.32	5.29	5.35
<i>Communication</i>	5.35	5.52	4.91	4.64	5.19	5.76	5.12	5.60	5.78	4.91	4.95	5.33	5.40
<i>Enhanced youth experience</i>	5.11	5.30	4.44	4.75	5.00	5.53	4.87	5.55	5.58	4.57	4.56	4.99	5.16
<i>Appropriate involvement</i>	5.31	5.56	4.81	4.76	4.92	5.91	5.29	5.47	5.21	4.90	5.00	5.51	5.19

\*Data were collected on a scale ranging from 1-7