

RMYC Community Youth Crew and Regional Youth Crew
Results 12-Month Follow Up Study Summer Experiential Education Program 2021 Cohort
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Rocky Mountain Youth Corps (RMYC)
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Introduction

This report summarizes the results of a 12-month follow-up study with the Summer 2021 cohort, using data collected during Summer 2022 from 64 participants in both RMYC's Community Youth Crews (ages 14-15) and Regional Youth Crews (ages 16-18) 12 months after their participation in the program during 2021. The report starts with a description of instrument development and distribution as well as the sampling strategies used for the follow-up study. The instrument mirrored the 2022 revised Entrance survey to facilitate comparison between follow-up data and previously collected data for each of seven subscales: 1. Planning and Decision Making, 2. Interpersonal Skills, 3. Peer/Social Support, 4. Resiliency, 5. Enhanced Self Efficacy, 6. Leadership, and 7. Civic Engagement. Previous evaluation reports of the 2021 Community and Regional Youth Crews and copies of the surveys may be made available by Rocky Mountain Youth Corps upon request. Section 2 of this report discusses efforts made to determine if Follow-up survey respondents were equivalent to the initial participant group.

Sections 3 - 9 of this report present comparisons of Entrance, Exit, and Follow-up survey data for each of the seven subscales to investigate the longer-term effects of the program on RMYC's Youth Crews. Entrance and Exit Effect size differences were used to show the initial program extent of impact and significance determination for each of the items. Item averages and standard deviations for Exit and Follow-up surveys means were compared, using paired t-tests to test the significance of 12-month effects. Time series graphs for each of the subscales also were included to show change from Entrance to Exit to Follow-up. Sections 10 and 11 report Alcohol and Marijuana use at Entrance, Exit, and Follow-up by frequency. Section 12 interprets the Follow-up data findings.

1. Survey Development and Sampling

Based on the 2021 evaluation results, the evaluator worked with RMYC to review their evaluation needs going forward. In addition to continuing to evaluate the on-going 2022 RMYC programs, the decision was made to conduct a 12-month follow-up study to see the extent to which the 2021 participants had changed since their program experience. The 2022 Entrance and Exit surveys were revised: one subscale was eliminated, and a 6-point Likert scale replaced the 4-point scale used in 2021. Reliabilities on the seven subscale, revised instruments for 2022 ranged from .82 to .88. The Follow-up survey included the following subscales with the number of items in each subscale listed.

Survey Subscales with Number of Items per Scale

Survey Outcome Subscales	Number of Items
1. Planning and Decision Making	10
2. Interpersonal Skills	8
3. Peer/Social Support	5
4. Resiliency	7
5. Enhanced Self Efficacy	10
6. Leadership	6
7. Civic Engagement	4

During Summer 2021, participants completed the same Entrance and Exit surveys online, as they began and ended their two or four weeks of service. RMYC counted 176 official participants for the summer.

From those, 165 participants responded to the Entrance Survey and 144 completed the Exit survey. Among those, 109 matched pairs were identified to measure immediate pre/post changes associated with program participation. Given this, the Entrance survey response rate was 93.8%, Exit survey response rate 81.8%, and the matched pair response rate 61.9%.

Approximately 12 months later, an online Follow-Up survey was sent to the 153 participants of the 2021 summer program for whom contact information was available with the exception of 25 participants who were returning to participate in 2022 summer program. These 25 participants completed the 2022 Entrance survey, which asked the same questions as the 2021 Follow-Up survey. Of the 128 participants who were contacted to complete the Follow-Up Survey, 48 responded after three attempts to contact them. With the 25 returnees, this provided a total of 63 responses from a possible 153 participants for a response rate of 41.2%.

2. Group Equivalence

Before proceeding to a comparison of 2022 Follow-up results with 2021 Entrance and Exit survey results, it was important to establish that responders to the Follow-up survey weren't different from those who did not respond. As a means of establishing group equivalence, 2021 Entrance survey results for both Follow-up respondents and non-respondents were compared, using a t-test for independent samples. With alpha set at .01 across the 50 items of the seven subscales, none of the differences between the two groups were found significant on entering the program.

Comparison of Survey Subscale Responses

With group equivalence established, paired t-test comparisons between Follow-up survey data and Exit survey data from 2021 were conducted. Before conducting the analysis, data from the 6-point Likert scale used with the 2021 Follow up survey were converted to a 4-point scale to facilitate comparisons. These tests examined the degree to which respondents expressed differences on the subscales 12 months later. Among the 63 respondents to the Follow-up survey, 48 had Exit survey data available (76.2%).

The tables that follow provide number of respondents, means, and standard deviations (SD) by item for both the Exit Survey and Follow-Up survey responses. The Exit Survey subscales asked participants to rate statements, using a 4-point Likert scale. The first two subscales, Planning and Decision Making, and Interpersonal Skills asked respondents to select among four choices: Not at all like me (1), A little like me (2), Somewhat like me (3), and Exactly like me (4). The remaining five subscales used Strongly Disagree (1), Disagree (2), Agree (3), and Strongly Agree (4) as their options. Paired t-test were conducted to determine any significant differences between Exit and Follow-up items. The p-values listed are 2-tailed significance levels; for this analysis a p-value of 0.100 or less would be considered significant.

The tables additionally provide effect size differences from the 2021 Entrance and Exit surveys (i.e., Pre/Post Effect Size), which serve as a baseline for the strengths of the initial program outcomes and can be compared across items. According to Tanner-Smith, S., Durlak, J., & Marx, R. (2018)¹ setting targets and interpreting effect size changes is directly related to program contexts. After their synthesis of 74 meta-analyses from more than 1100 controlled empirical trials with almost a half million school age participations, they reported average effect size ranged from .07 to .16 standard deviations. An effect size of .25 or greater would indicate a substantial positive change for a program aiming to enhance protective factors among participants. Items in bold were shown in the 2021 evaluation report to show significant positive change from Entrance to Exit, based on 109 matched pairs.

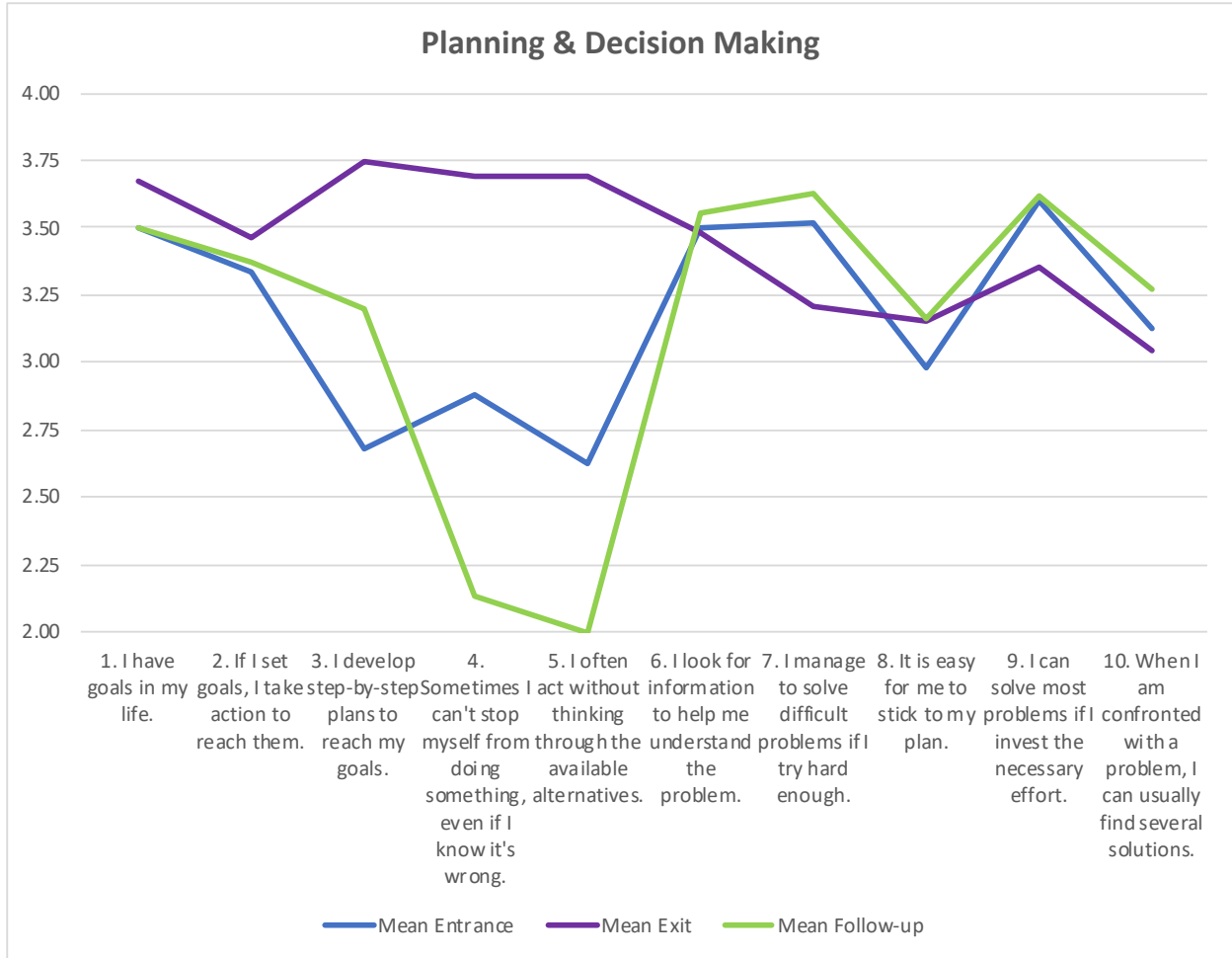
3. Planning and Decision Making

¹ Tanner-Smith, S., Durlak, J., & Marx, R. (2018). Empirically based mean effect size distributions for universal prevention programs targeting school-aged youth: A review of meta-analyses. *Prevention Science, 19*, 1091-1101

As shown below, the program experience had significant positive impact on the participants' planning and decision-making skills. The first column in the table below shows significant positive effect sizes in bold that were found initially from Entrance to Exit for four of the items (i.e., Items 2, 3, 4, and 8). Columns two and three provide item averages and standard deviations for Exit and Follow-up surveys. The fourth column lists p-values for paired t-test comparisons between Exit and Follow-up means. Significant p-values are bolded. Almost all of the Follow-up data show improvements with Items 3 and 4 showing continued significant improvement 12 months later.

ITEMS (n=48)	Pre/Post Effect Size	Mean Exit (SD)	Mean Follow-up (SD)	p-value
1. I have goals in my life.	-.039	3.50 (.68)	3.50 (.62)	.968
2. If I set goals, I take action to reach them.	.161	3.38 (.64)	3.38 (.22)	1.000
3. I develop step-by-step plans to reach my goals.	.229	2.85 (.90)	3.20 (.66)	.009
4. Sometimes I can't stop myself from doing something, even if I know it's wrong.	.159	2.85 (1.01)	2.13 (.86)	.000
5. I often act without thinking through all the alternatives.	-.056	2.71 (1.01)	2.00 (.76)	.001
6. I look for information to help me understand the problem.	.038	3.56 (.62)	3.63 (.49)	.899
7. I manage to solve difficult problems if I try hard enough.	.105	3.50 (.42)	3.63 (.84)	.124
8. It is easy for me to stick to my plan.	.256	3.11 (.84)	3.17 (.66)	.617
9. I can solve most problems if I invest the necessary effort.	-.037	3.62 (.61)	3.62 (.48)	1.000
10. When I am confronted with a problem, I can usually find several solutions.	.221	3.27 (.74)	3.27 (.58)	1.000

Another way to view the data is through a time series graph. The line graph that follows shows the average Entrance, Exit, and Follow-up scores for each of the 10 items in the subscale. The wider the gap among the three points for each of the items, the more change that has occurred. For example, Item 3, **I develop step-by-step plans to reach my goals** shows an improvement from Entrance to Exit to Follow-up. Items 4 and 5, both of which are worded in a way that would hope for lower scores, show significant positive change from Exit to Follow-up. In general, you can see that 12 months after their program experiences participants maintained or improved upon the positive youth assets promoted by RMYC.



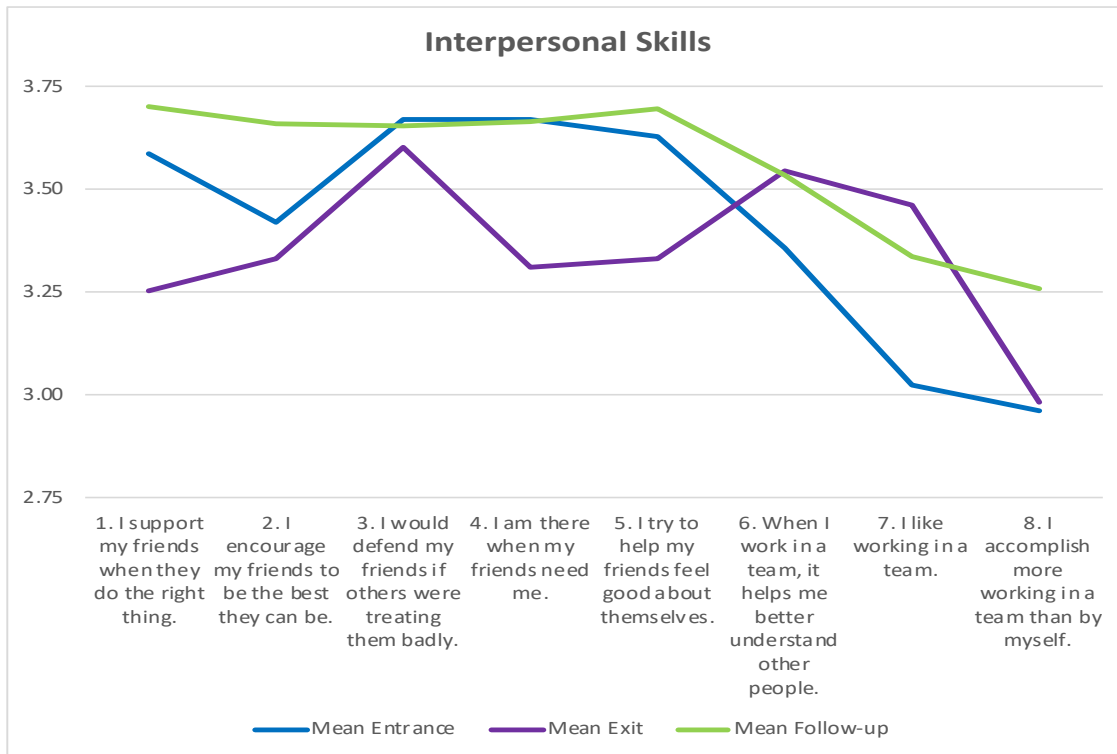
4. Interpersonal Skills

The program experience had significant positive impact on the participants' interpersonal skills. The first column in the table below shows significant positive effect sizes in bold that were found initially from Entrance to Exit for three of the items (i.e., Items 6, 7, and 8). Columns two and three provide item averages and standard deviations for Exit and Follow-up surveys. The fourth column lists p-values for paired t-test comparisons between Exit and Follow up means. Significant p-values are bolded. Almost all of the Follow-up data show improvements in the means with Item 2 revealing significant improvement 12 months later.

ITEMS (n=48)	Pre/Post Effect Size	Mean Exit (SD)	Mean Follow-up (SD)	p-value
1. I support my friends when they do the right thing.	.075	3.67 (.63)	3.70 (.37)	.719
2. I encourage my friends to be the best they can be.	.155	3.46 (.80)	3.66 (.48)	.062
3. I would defend my friends if others were treating them badly.	.117	3.75 (.48)	3.65 (.46)	.187
4. I am there when my friends need me.	.030	3.69 (.59)	3.66 (.48)	.787

5. I try to help my friends feel good about themselves.	.063	3.68 (.63)	3.69 (.39)	.880
6. When I work in a team, it helps me better understand other people.	.198	3.48 (.74)	3.53 (.71)	.656
7. I like working in a team.	.276	3.17 (.81)	3.27 (.54)	.253
8. I accomplish more working in a team than by myself.	.241	3.21 (.75)	3.34 (.58)	.354

Another way to view the data is through a time series graph. The line graph that follows shows the average Entrance, Exit, and Follow-up scores for each of the 8 items in the subscale. The wider the gap among the three points for each of the items, the more change that has occurred. For example, Item 8, **I accomplish more working in a team than by myself** shows a slight improvement from Entrance to Exit and then a larger improvement in Follow-up. For six of the eight items, Follow-up scores are higher than Exit scores.



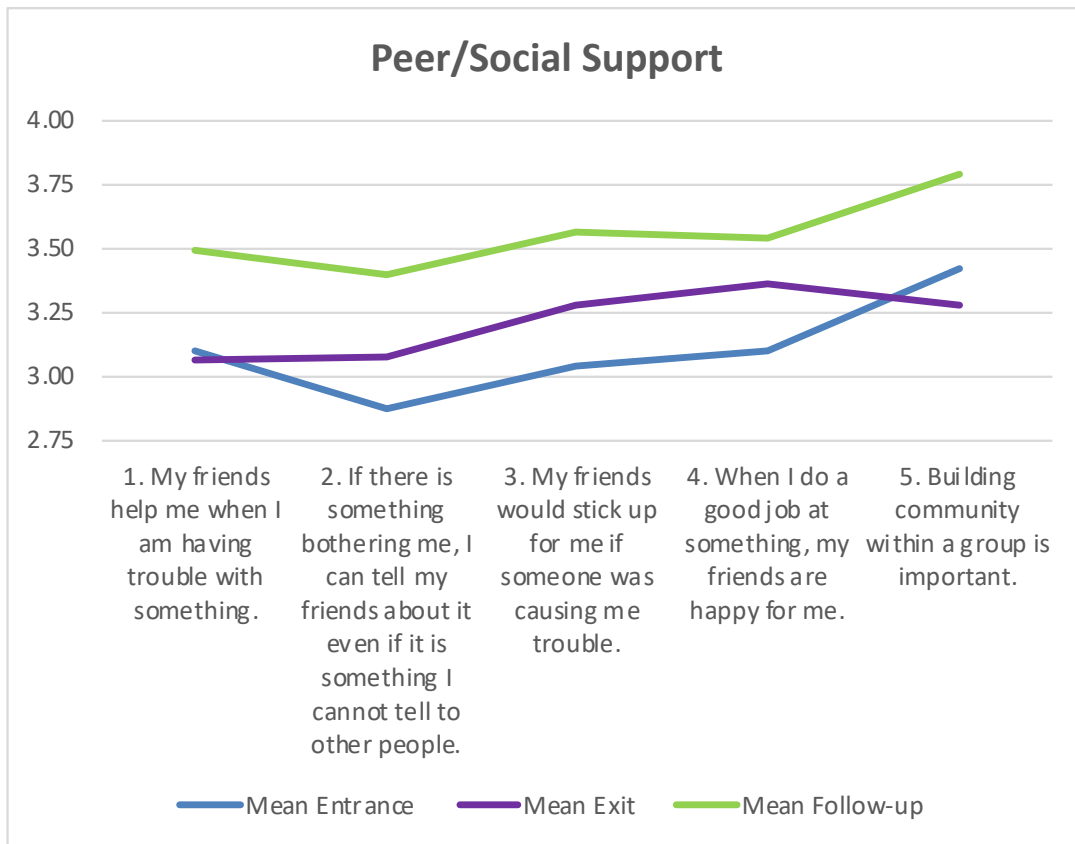
5. Peer/Social Support

As shown below, from Entrance to Exit the program experience had significant positive impact on the participants' peer and social support; four of the five items in this subscale showed significant positive effect size changes. These positive impacts continued 12 months later with four of the five items showing significant improvements.

ITEMS (n=48)	Pre/Post Effect Size	Mean Exit (SD)	Mean Follow-up (SD)	p-value
1. My friends help me when I am having trouble with something.	.266	3.35 (.67)	3.49 (.53)	.211

2. If there is something bothering me, I can tell my friends about it even if it is something I cannot tell to other people.	.194	3.04 (.92)	3.40 (.63)	.009
3. My friends would stick up for me if someone was causing me trouble.	.195	3.25 (.75)	3.56 (.48)	.004
4. When I do a good job at something, my friends are happy for me.	.269	3.33 (.66)	3.53 (.39)	.036
5. Building community within a group is important.	.105	3.60 (.64)	3.79 (.32)	.045

These improvements are shown in the graph below, indicating continued growth on the five items.

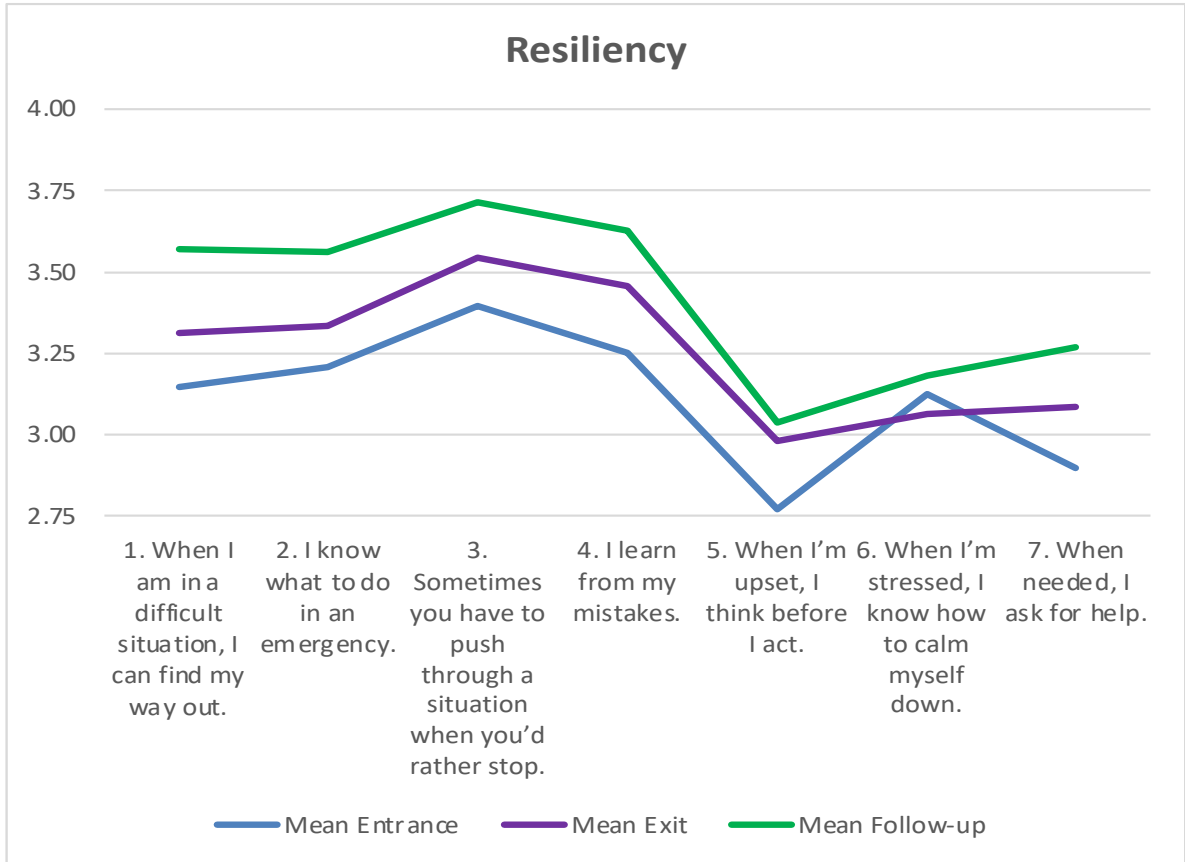


6. Resiliency

The initial Entrance and Exit data supported that the program experience had significant positive impact on the participants' resiliency with six of the seven items showing significant effect size improvement. Follow-up data revealed that three of the seven items continued showing improvements significantly with the remaining four items increasing slightly.

ITEMS (n=48)	Pre/Post Effect Size	Mean Exit (SD)	Mean Follow-up (SD)	p-value
1. When I am in a difficult situation, I can find my way out.	.301	3.31 (.66)	3.58 (.39)	.005
2. I know what to do in an emergency.	.337	3.33 (.69)	3.57 (.44)	.023
3. Sometimes you have to push through a situation when you'd rather stop.	.257	3.54 (.65)	3.71 (.33)	.082
4. I learn from my mistakes.	.276	3.46 (.68)	3.63 (.44)	.122
5. When I'm upset, I think before I act.	.343	2.98 (.83)	3.05 (.73)	.598
6. When I'm stressed, I have trouble doing things.	.101	3.06 (.84)	3.20 (.68)	.334
7. When needed, I ask for help.	.406	3.08 (.76)	3.26 (.73)	.152

The graph below shows consistent improvement in the first four Resiliency subscale items from Entrance to Exit to Follow-up. For the remaining three items, Follow-up data are consistently higher than Exit data.



7. Enhanced Self-Efficacy

From initial Entrance to Exit the program experience showed significant positive impact on all 10 of the self-efficacy items. The Follow-up survey data show continued significant gains in 3 of the 10 items (i.e., 6. *I have important contributions to make to groups*, 7. *I cope well with stressful situations*, and 8. *I am a good friend*).

ITEMS (n=48)	Pre/Post Effect Size	Mean Exit (SD)	Mean Follow-up (SD)	p-value
1. I am confident that I could deal efficiently with unexpected events.	.465	3.28 (.80)	3.46 (.48)	.101
2. Thanks to my resourcefulness, I know how to handle unforeseen situations.	.327	3.36 (.70)	3.53 (.43)	.135
3. I can remain calm when facing difficulties because I know what to do.	.404	3.28 (.68)	3.83 (.48)	.401
4. I am confident speaking up in groups.	.660	2.85 (1.00)	3.03 (.81)	.238
5. I tell people what I think of them.	.497	2.85 (.84)	2.91 (.81)	.715
6. I have important contributions to make to groups.	.487	3.23 (.69)	3.50 (.36)	.006
7. I cope well with stressful situations.	.508	2.91 (.92)	3.18 (.71)	.054
8. I am a good friend.	.269	3.47 (.77)	3.70 (.37)	.048
9. I know my strengths.	.436	3.47 (.75)	3.57 (.45)	.350
10. I am confident that I could plan a balanced meal on a limited budget.	.446	3.43 (.78)	3.50 (.70)	.792

The graph that follows shows consistent improvement over time for all 10 items.

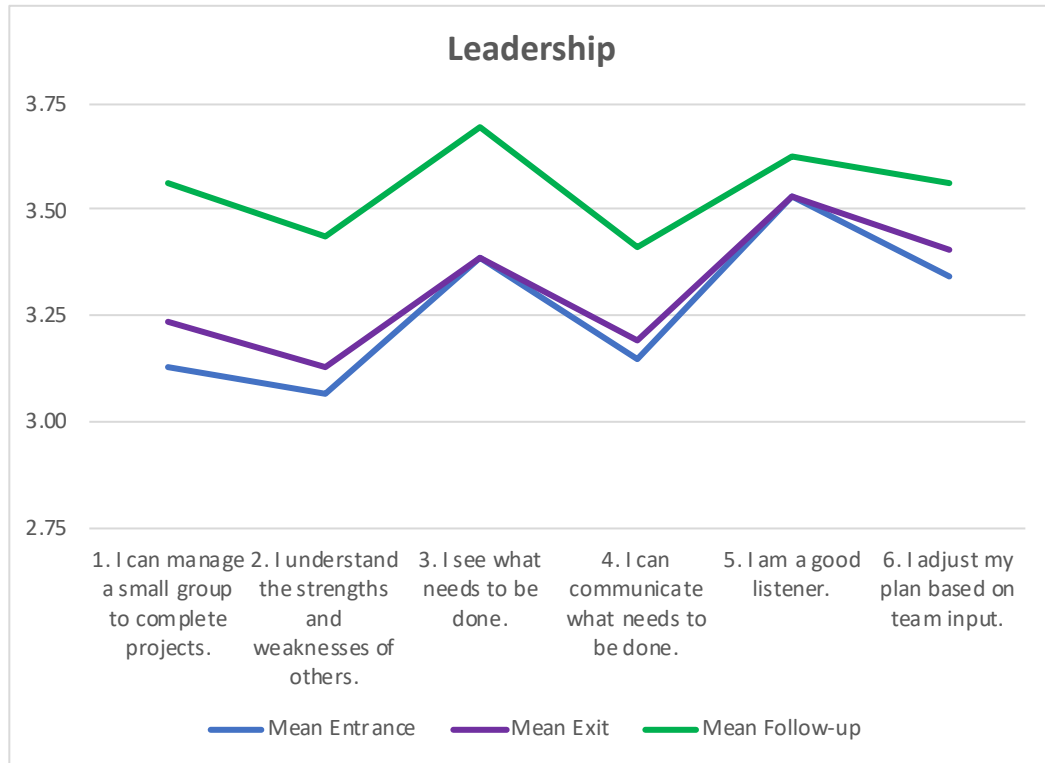


8. Leadership

From initial Entrance to Exit surveys, the program experience showed significant positive impacts on six of the seven leadership skill items. Follow-up data reveal that three of the leadership items continued to improve significantly (i.e., 1. *I can manage small group to complete projects*, 2. *I understand the strengths and weaknesses of others*, and 3. *I see what needs to be done*).

ITEMS (n=48)	Pre/Post Effect Size	Mean Exit (SD)	Mean Follow-up (SD)	p-value
1. I can manage small group to complete projects.	.378	3.25 (.86)	3.56 (.44)	.012
2. I understand the strengths and weaknesses of others.	.312	3.15 (.83)	3.43 (.57)	.039
3. I see what needs to be done.	.152	3.38 (.82)	3.69 (.37)	.013
4. I can communicate what needs to be done.	.344	3.21 (1.00)	3.40 (.59)	.163
5. I am a good listener.	.200	3.54 (.74)	3.64 (.41)	.439
6. I adjust my plan based on team input.	.231	3.42 (.74)	3.55 (.40)	.269

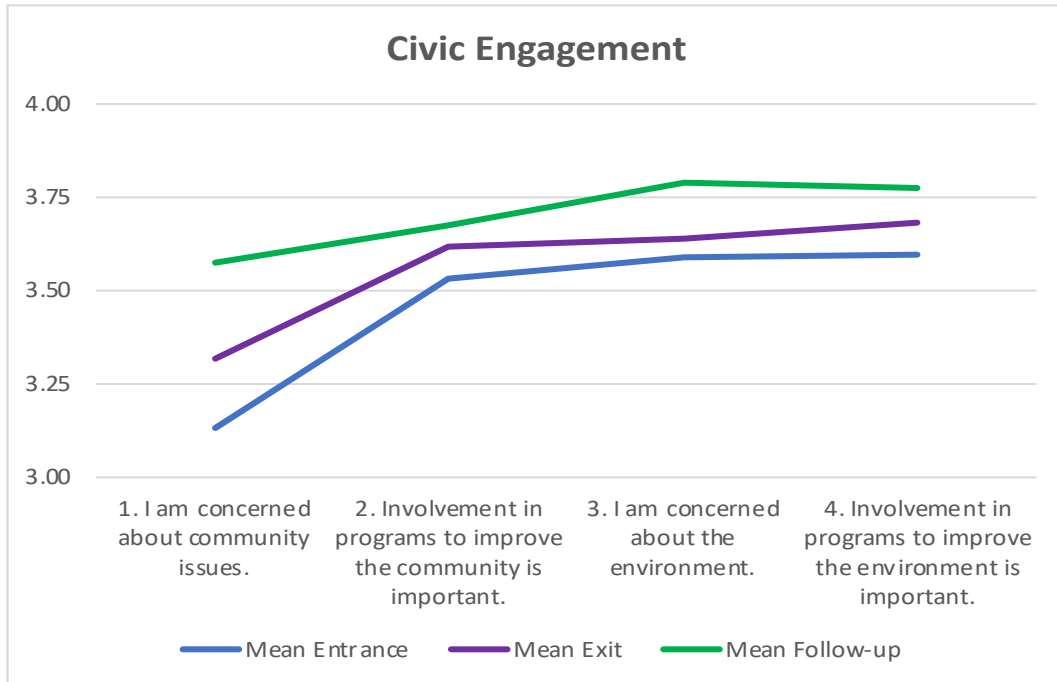
The graph that follows shows consistent improvement over time for all six items.



9. Civic Engagement

From initial Entrance to Exit surveys, the program experience had significant positive impact on three of the four civic engagement items. Only one of the four items increased significantly in the Follow-up survey: *1. I am concerned about community issues.*

ITEMS (n=48)	Pre/Post Effect Size	Mean Exit (SD)	Mean Follow-up (SD)	p-value
1. I am concerned about community issues.	.378	3.13 (.83)	3.57 (.52)	.001
2. Involvement in programs to improve the community is important.	.312	3.63 (.61)	3.68 (.43)	.582
3. I am concerned about the environment.	.152	3.65 (.64)	3.79 (.34)	.111
4. Involvement in programs to improve the environment is important	.344	3.69 (.62)	3.78 (.34)	.324



10. Use of Alcohol Last 30 Days

Use of alcohol was measured at Entrance, Exit, and Follow-up post by asking for frequency of use in the prior 30 days. As can be seen in the table that follows, at Entrance slightly more than 85% of participants reported not using alcohol before program participation. For this sample of 48, there were 7 users at Entrance, 4 at Exit, and 12 at Follow-up. The high percentage of non-users does not allow much room for positive change, which is what the Exit and Follow-up survey data show.

	None	1-2	3-5	6-9	10-19	All 30
Entrance	85.42%	6.25%	4.17%	2.08%	2.08%	0.00%
Exit	91.67%	6.25%	2.08%	0.00%	0.00%	0.00%
Follow-up	75.00%	10.42%	10.42%	2.08%	2.08%	0.00%

11. Use of Marijuana Last 30 Days

Use of marijuana was measured at Entrance, Exit, And Follow-up by asking for frequency of use in the prior 30 days. As can be seen in the table that follows more than 90% of participants reported not using marijuana before program participation. For this sample of 48, users at Entrance, Exit, and Follow-up represent 3, 2, and 7 individuals respectively. This high percentage of non-users does not allow much room for positive change, which is what the Exit and Follow-up survey data show.

	None	1-2	3-5	6-9	10-19	All 30
Entrance	93.75%	0.00%	2.08%	2.08%	2.08%	0.00%
Exit	95.83%	0.00%	2.08%	2.08%	0.00%	0.00%
Follow-up	85.42%	4.17%	6.25%	4.17%	0.00%	2.08%

Caution about Interpreting Follow-Up Data for Alcohol and Marijuana Use

The data from the Follow-up study definitely show a reduction in users from Entrance to Exit. The data also show an increase in the number of users of alcohol and marijuana from Exit to Follow-up. With a sample size of 48, percentage reporting can be misleading. The increase in users from Entrance to

Follow-up represents 5 individuals for alcohol and 4 for marijuana. Generally, substance use increases with age among individuals under 25 years of age. For example, the 2020 National Survey on Drug Use and Health reported nearly 17% of youth aged 16 to 17 using alcohol, whereas almost 32% among 18-20 year-olds reported 30-day past use of alcohol. To investigate if these increases might be age related, the Follow-up data were disaggregated by age of respondent. In general, the two tables that follow indicate the expected pattern of increased use with increased age.

Alcohol

	15 year olds	16 year olds	17 year olds	18 year olds	19 year olds	20 year olds
Frequency of Use	n=9	n=10	n=15	n=8	n=4	n=2
NONE	9	8	11	5	3	
1-2		2	1	2		
3-5			1	1	1	2
6-9			1			
10-19			1			
20-29						
ALL 30						

Marijuana

	15 year olds	16 year olds	17 year olds	18 year olds	19 year olds	20 year olds
Frequency of Use	n=9	n=10	n=15	n=8	n=4	n=2
NONE	9	8	14	7	3	
1-2						2
3-5		1		1	1	
6-9		1	1			
10-19						
20-29						
ALL 30						

12. Interpreting the 12-month Follow Up Results

The Follow-up survey data consistently show that the initial gains made from Entrance to Exit across the seven subscales (i.e., 1. Planning and Decision Making, 2. Interpersonal Skills, 3. Peer/Social Support, 4. Resiliency, 5. Enhanced Self Efficacy, 6. Leadership, and 7. Civic Engagement) maintained or showed enhancement 12 months later. Alcohol and Marijuana use were somewhat higher but substantially lower than national projections for youth of similar ages. The table below shows the number of items by subscales that were significantly different just before and after the program and the number of items that were significantly different from Exit to Follow-up. Clearly there is evidence to show that Rocky Mountain Youth Corps Youth Crew members exhibit positive immediate and longer terms effects of program participation in strengthen positive youth assets.

Survey Outcome Subscales	Number of Items	Number of Items Significantly Different Entrance to Exit	Number of Items Significantly Different Exit to Follow-up
1. Planning and Decision Making	8	4	3
2. Interpersonal Skills	7	3	1
3. Peer/Social Support	5	4	4
4. Resiliency	7	6	3
5. Enhanced Self Efficacy	10	10	3
6. Leadership	6	5	3
7. Civic Engagement	4	3	1