Combining and Expanding STEM Summer Youth Initiatives
DISCUSSION PAPER

Background

As directed by the Chairman Bryan Daniel at the July 5th TWC Commission meeting, information related to the analysis and feasibility of combining current STEM Camp initiatives is being provided. TWC currently runs two programs that provide youth summer camps related to STEM programs. The two programs are the Governor's Summer Merit Program (GSMP) and Camp Code.

Current Description

GSMP funds science, technology, engineering, and mathematics (STEM) camps for youth ages 14-21, and any STEM field or subject can be addressed. Past camp topics have included forensics, marine biology, paleontology, robotics, and computer or robot programming. Eligible applicants include:

- a general academic teaching institution in Texas, as defined by Texas Education Code § 61.003(3), that offers baccalaureate degree programs in engineering and/or engineering technology that is accredited by the Accreditation Board for Engineering and Technology, or that offers baccalaureate degree programs in computer science;
- an agency of higher education in Texas as defined by Texas Education Code § 61.003(6);
- an institution of higher education in Texas as defined by Texas Education Code § 61.003(8); or
- a private or independent institution of higher education in Texas as defined by Texas Education Code § 61.003(15).

The maximum that can be requested by any single grantee is $100,000. In 2021, $1,000,000 was allocated to this program with $716,377 awarded. Prior to the pandemic, in 2019, the response was stronger; $1,000,000 was allocated, and $946,906 was awarded.

As reported by grantees, below is the number of camps and demographic data for 2019.

Governors Summer Merit Program FY19

TOTAL OF 49 CAMPS / 1,210 planned students and 1,326 actual students	
DEMOGRAPHICS (Across all Camps)	**TOTAL**
Total Number of Enrollments	1210
Number of Female Participants	668
Number of Male Participants	658
Number of Foster Youth Participants	Unknown
Number of Participants with Disabilities	33

RACE (Number of students by race and gender)		
	FEMALE / MALE	
American Indian or Alaska Native	7	0
Asian	204	0
Black or African American	173	0
Native Hawaiian or Other Pacific Islander	6	0
White	368	0
Hispanic, Latino, and Spanish Ethnicities	494	0
Other	74	
Total	**1326**	**0**

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2   2020 numbers are not provided as all camps were canceled due to the COVID Pandemic.

3   As reported by grantees, below is the number of camps and demographic breakout for 2021.
4   There are 74 camps planned for the summer of 2022, and demographic data is not yet available.

TOTAL OF 32 CAMPS for 2021		
DEMOGRAPHICS (Across all Camps)	**TOTAL**	
Total Number of Enrollments	1217	
Number of Female Participants	500	
Number of Male Participants	569	
Number of Foster Youth Participants	23	
Number of Participants with Disabilities	35	
Number of Low-Income Participants	359	
RACE (Number of students by race and gender)		
	Female	**Male**
American Indian or Alaska Native	0	2
Asian	94	109
Black or African American	115	133
Native Hawaiian or Other Pacific Islander	0	1
White, including Hispanic, Latino, and Spanish Ethnicities	274	298
Other	17	26
Total	**500**	**569**
* Difference between planned enrollments and number of participants is planned vs. actual		

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6   Camp Code provides coding camps to youth grades 6th through 8th (typically ages 11-13 years
7   old) to increase the interest in coding and programming by providing hands-on experiences that

1   include challenging and innovative concepts and experiences in learning, problem solving, and
2   analytical skills, while simultaneously fostering an interest in STEM-related careers.

3   Eligible applicants include:
4   • Texas Independent School District that serves students in grades six (6) through eight (8);
5   • Texas school, whether public or private, that serves students in grades six (6) through
6   eight (8);
7   • Texas school on a military base that serves students in grades six (6) through eight (8);
8   • Texas Home school organization that serves students in grades six (6) through eight (8);
9   • not-for-profit organization that serves Texas students in grades six (6) through eight (8);
10   • general academic teaching institution in Texas, as defined by Texas Education Code
11   (TEC) § 61.003(3), that offers baccalaureate degree programs in engineering and/or
12   engineering technology that are accredited by the Accreditation Board for Engineering
13   and Technology, or that offers baccalaureate degree programs in computer science;
14   • other agency of higher education in Texas as defined by TEC § 61.003 (6);
15   • institution of higher education in Texas as defined by TEC § 61.003(8); or,
16   private or independent institution of higher education in Texas as defined by TEC §
17   61.003(15).

18   The maximum that can be requested by any single grantee is $100,000. In 2021, $600,000 was
19   allocated to this program with $399,586 awarded. Prior to the pandemic, in 2019, the response
20   was stronger; $600,000 was allocated, and $640,009 was awarded (after additional funds were
21   allocated). In 2019 and 2020 Camp Code quality applications significantly exceeded available
22   funds, as shown in the Funding Level section below.

23   As reported by grantees, below is the number of camps and demographic data for 2019.

Camp Code FY19

TOTAL OF 30 CAMPS / 1,191 planned students and 644 actual students	
DEMOGRAPHICS (Across all Camps)	**TOTAL**
Total Number of Enrollments	644
Number of Female Participants	644
Number of Male Participants	0
Number of Foster Youth Participants	Unknown
Number of Participants with Disabilities	15
RACE (Number of students by race and gender)	

	Female	**Male**
American Indian or Alaska Native	0	0
Asian	17	0
Black or African American	208	0
Native Hawaiian or Other Pacific Islander	0	0

White	54	0
Hispanic, Latino, and Spanish Ethnicities	224	0
Other	141	
Total	**644**	**0**

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2   2020 numbers are not provided as all camps were canceled due to the COVID Pandemic.

3   As reported by grantees, below is the number of camps and demographic breakout for 2021.

4   There are 42 camps planned for the summer of 2022, and demographic data is not yet available.

TOTAL OF 24 CAMPS for 2021		
DEMOGRAPHICS (Across all Camps)	**TOTAL**	
Total Number of Enrollments	1303	
Number of Female Participants	239	
Number of Male Participants	316	
Number of Foster Youth Participants	4	
Number of Participants with Disabilities	60	
Number of Low-Income Participants	384	
RACE (Number of students by race and gender)		
	Female	**Male**
American Indian or Alaska Native	3	4
Asian	2	4
Black or African American	80	112
Native Hawaiian or Other Pacific Islander	0	0
White, including Hispanic, Latino, and Spanish Ethnicities	146	186
Other	10	8
Total	**241**	**314**
* Difference between planned enrollments and number of participants is planned vs. actual		

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6   Both programs—GSMP and Camp Code—support day and overnight camps, have a minimum

7   length of 5 days, and must take place during the summer. Currently, TWC's policy does not

8   allow applicants to be awarded a grant under both programs.

9   **Funding Level**

10   A combined version of these programs would need funding of $2.3 million dollars. This amount

11   is estimated based on a review of the quality applications received over the last 4 years. Between

12   the two programs, since 2019, TWC has received an average of $2.46 million in applications

13   scoring above 70 (see table below for full data). While TWC will award scores below 70 (and

1   has in the past for both programs), staff recommend 70 as a good benchmark to design program

2   funding for highly competitive RFAs, which a combined program is expected to be.

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Year	Camp Code	GSMP	Total
2019	$2,288,122	$434,042	$2,722,164
2020	$2,075,367	$1,087,123	$3,162,490
2021	$532,830	$1,310,373	$1,843,203
2022	$626,779	$1,474,433	$2,101,212
Average over 4 Years	**$1,380,775**	**$1,076,493**	**$2,457,267**

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5   **Options**

6   Three options for commission consideration are outlined below regarding the approach that

7   could be taken while presenting these programs in budget proposals in 2024 and later.

8   • **Keep programs fully separate, making no material changes to the programs:** The

9   programs will be presented as two separate programs with separate budgets. Both programs

10   will continue to have the same eligibility requirements. Proposed budgets will be established

11   in line with overall budgeting guidelines. This option results in no changes to the initiatives

12   or how they are awarded.

13   • **Keep programs separate but combine budgets and make material changes to the**

14   **programs:** The programs could be presented as a single line item in the budget proposal,

15   with a proposed budget based on overall budgeting guidelines (aligned with historical

16   combined applications as laid out in the funding table above). The programs could be

17   procured using separate RFAs, but staff would be authorized to move funds between the

18   programs to address increased or decreased demand as needed. GSMP's eligibility

19   requirements could be expanded to allow middle school students to participate and allow

20   school districts to apply for funding. The commission may consider options to remove the

21   requirement that applicants choose one or the other and identify the best approach to

22   eliminate that requirement.

23   • **Fully combine the programs:** A new program could be developed that includes all

24   components (for example, eligibility of participants, eligibility of applicants, requirements)

25   of both programs, which could lead to increased opportunities for participants. A portion of

26   the funding for this program would be dedicated to middle school coding camps. This new

27   program would have a funding stream in line with the funding stream proposed in the

28   funding table above.

29   **Analysis of Risks and Benefits**

30   Risks:

1 • Both programs have developed distinct identities and combining the programs may result in
2   one or both losing name recognition. This loss of recognition could result in decreased
3   applications, or confusion for applicants familiar with the two distinct programs, or, because
4   of its highly specialized nature, a possible decrease in the number of coding camps. If the two
5   programs were combined, possible mitigation strategies are as follows:
6   o Increase outreach and awareness to ensure previous applicants are aware of the
7   combination of the programs and of the opportunities and benefits offered through
8   both programs.
9   o Identify a dedicated portion of the funds for middle school coding camps.
10   o Remove the exclusion requirement between the two programs. (Currently, an
11   applicant may not apply for both). With the exclusion requirement removed, more
12   school districts may desire to offer both STEM and coding camps.

13 Benefits:
14 • By offering the full range of STEM camps down to the middle school level, additional
15   opportunities will be made available for middle school students to engage with STEM
16   curriculum.
17 • By combining the two programs, staff will have the ability to balance the funding between
18   the two programs. (Historically the number of applications between these two programs has
19   varied, with GSMP typically receiving more applications.)
20 • Combining these two programs would remove the requirement that the two programs be
21   mutually exclusive. This removal could allow applicants that desire to offer both middle
22   school coding camps and high school STEM camps to increase the number of programs that
23   they offer, resulting in more opportunities for youth. (The exclusion requirement is a policy
24   put in place when it was noted that grantees were using funds from both programs for one
25   activity/project, leading to disallowed costs and no or low performance. If the policy were
26   revised, staff could review options and identify new methods for tracking grantee
27   expenditures and performance.)
28 **Decision Point**
29 This item is presented for commission consideration.