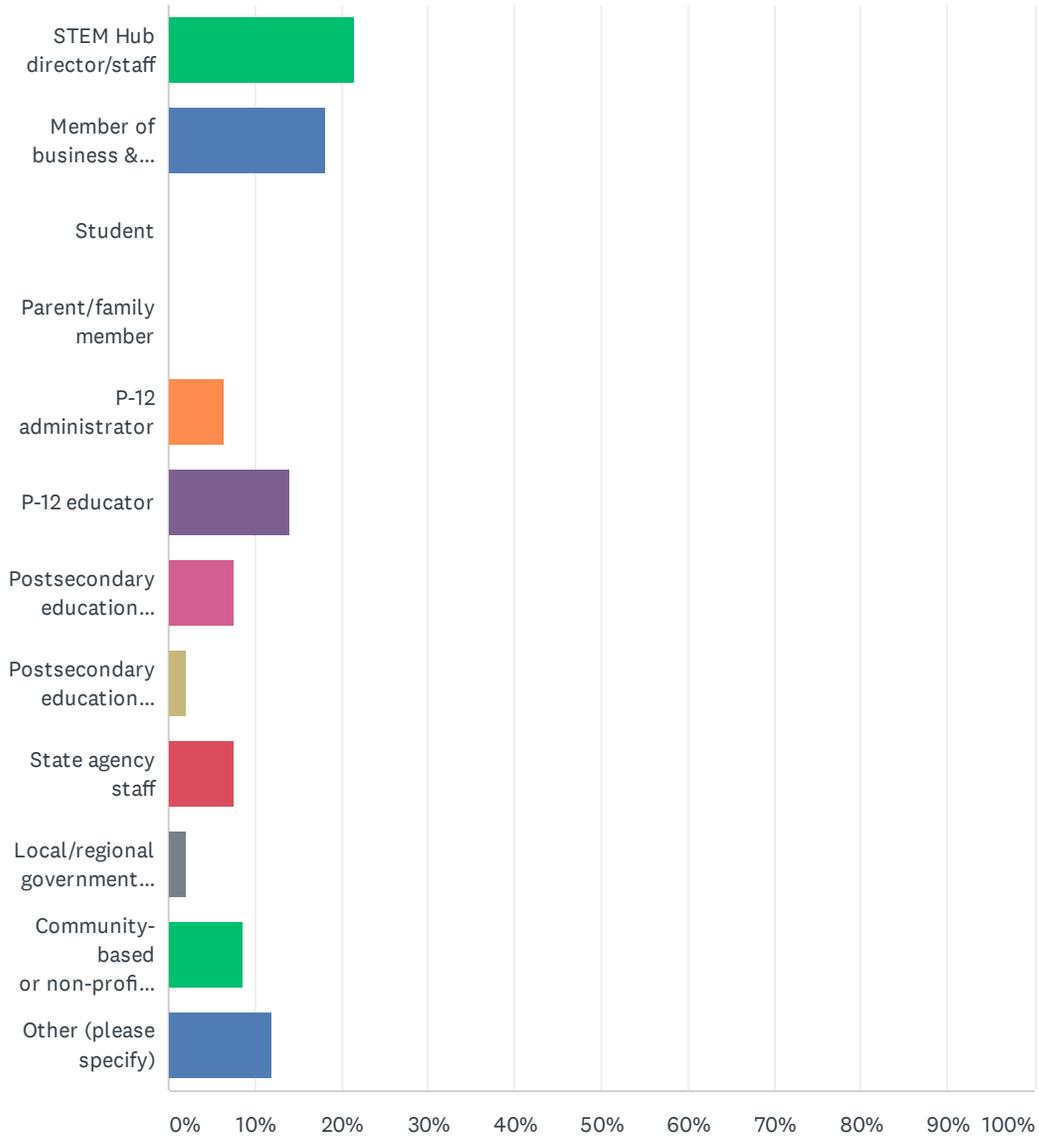


# Q1 What best describes you?

Answered: 93 Skipped: 1



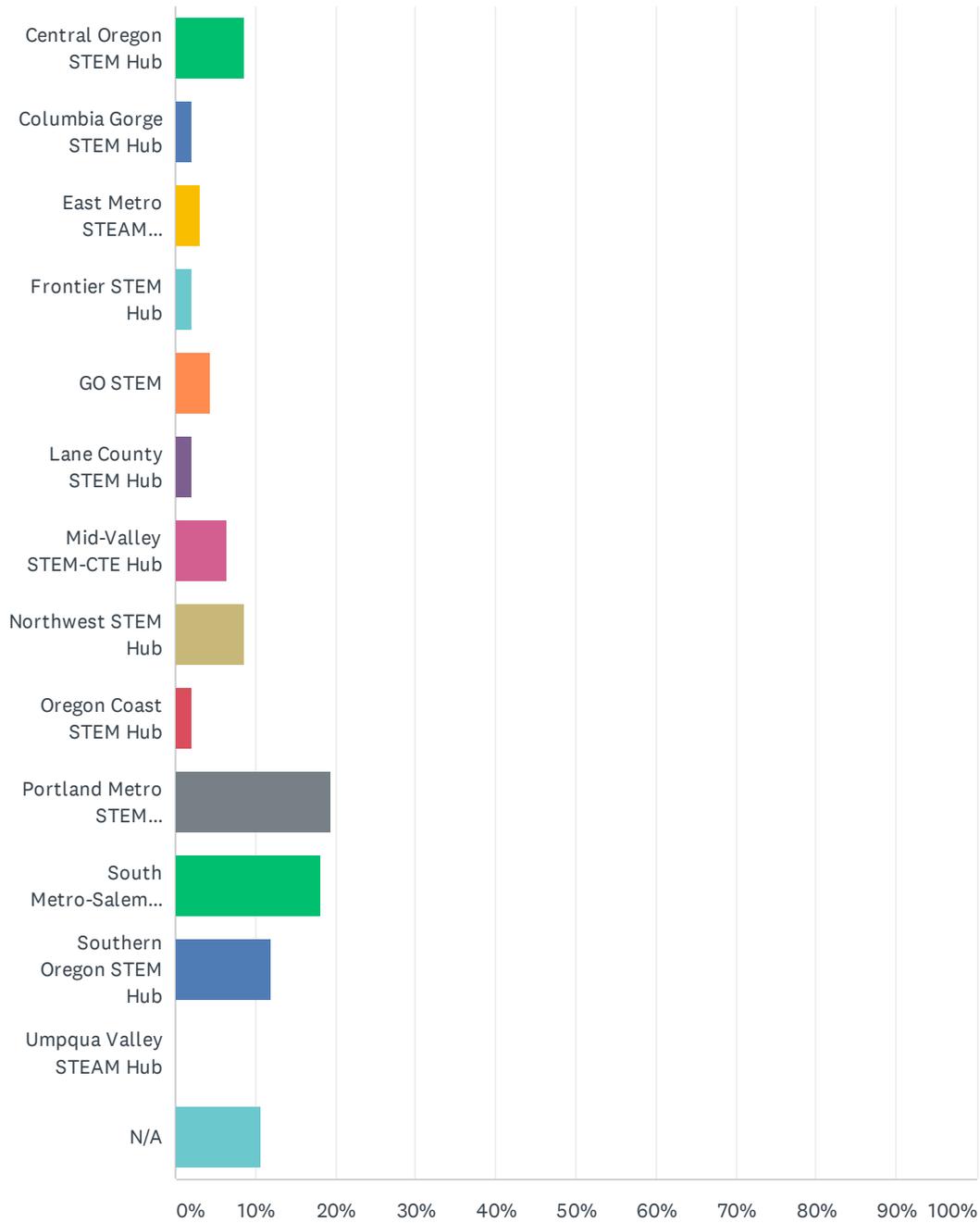
## Revising Oregon's STEM Education Plan

ANSWER CHOICES	RESPONSES	
STEM Hub director/staff	21.51%	20
Member of business & industry	18.28%	17
Student	0.00%	0
Parent/family member	0.00%	0
P-12 administrator	6.45%	6
P-12 educator	13.98%	13
Postsecondary education administrator	7.53%	7
Postsecondary education educator	2.15%	2
State agency staff	7.53%	7
Local/regional government staff	2.15%	2
Community-based or non-profit organization staff	8.60%	8
Other (please specify)	11.83%	11
<b>TOTAL</b>		<b>93</b>

#	OTHER (PLEASE SPECIFY)	DATE
1	Career and Technical Ed Regional Coordinator	3/31/2020 7:44 AM
2	Philanthropic funder	3/25/2020 10:30 AM
3	Educational Service District staff	3/23/2020 8:58 AM
4	Citizen	3/18/2020 11:28 AM
5	Graduate level health care research and treatment education	3/17/2020 3:11 PM
6	Retired plant manager volunteering at middle school tech club	3/17/2020 2:29 PM
7	Career and Technical Education Staff ESD	3/17/2020 7:43 AM
8	Retired faculty in Statewide STEM equity program, EE leader, STEM hubs	3/13/2020 2:03 PM
9	Dual credit Coordinator	3/12/2020 4:36 PM
10	CTE Regional Coordinator	3/12/2020 3:46 PM
11	STEM Hub Board	3/3/2020 10:05 AM

## Q2 Which STEM Hub region are you most closely connected to?

Answered: 93 Skipped: 1

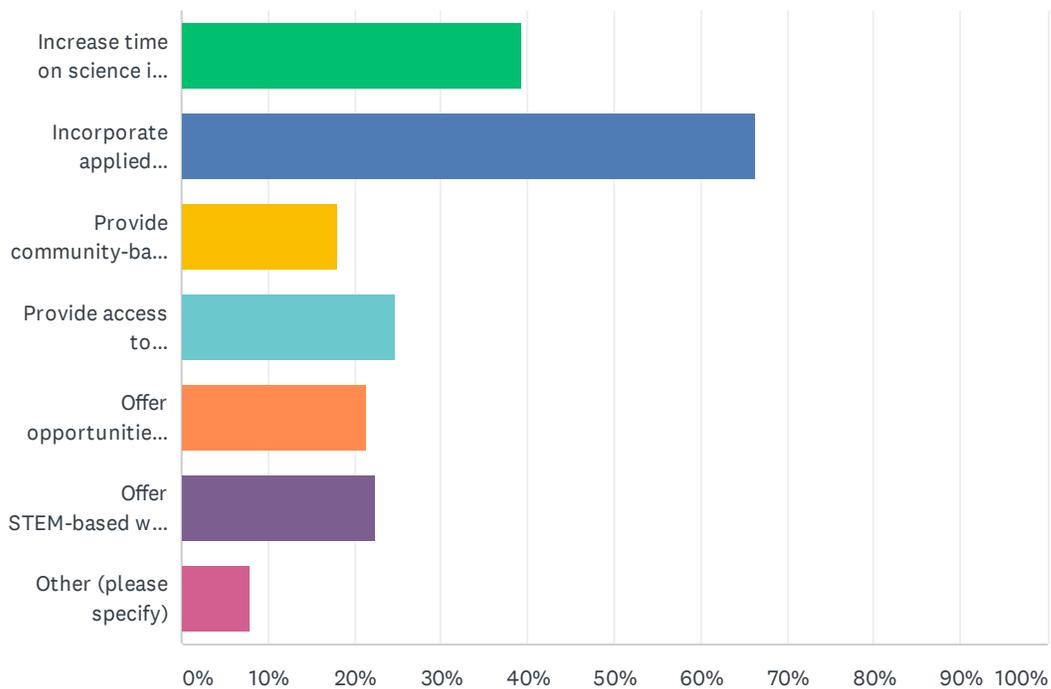


## Revising Oregon's STEM Education Plan

ANSWER CHOICES	RESPONSES	
Central Oregon STEM Hub	8.60%	8
Columbia Gorge STEM Hub	2.15%	2
East Metro STEAM Partnership	3.23%	3
Frontier STEM Hub	2.15%	2
GO STEM	4.30%	4
Lane County STEM Hub	2.15%	2
Mid-Valley STEM-CTE Hub	6.45%	6
Northwest STEM Hub	8.60%	8
Oregon Coast STEM Hub	2.15%	2
Portland Metro STEM Partnership	19.35%	18
South Metro-Salem STEM Partnership	18.28%	17
Southern Oregon STEM Hub	11.83%	11
Umpqua Valley STEAM Hub	0.00%	0
N/A	10.75%	10
<b>TOTAL</b>		<b>93</b>

**Q3 Proposed Outcome I: Oregon students are interested in STEM and develop a STEM identity. Select the two most important strategies for Outcome I over the next five years. If you do not see one of your top two strategies listed, please select "Other" and write the strategy in the comment box.**

Answered: 89 Skipped: 5



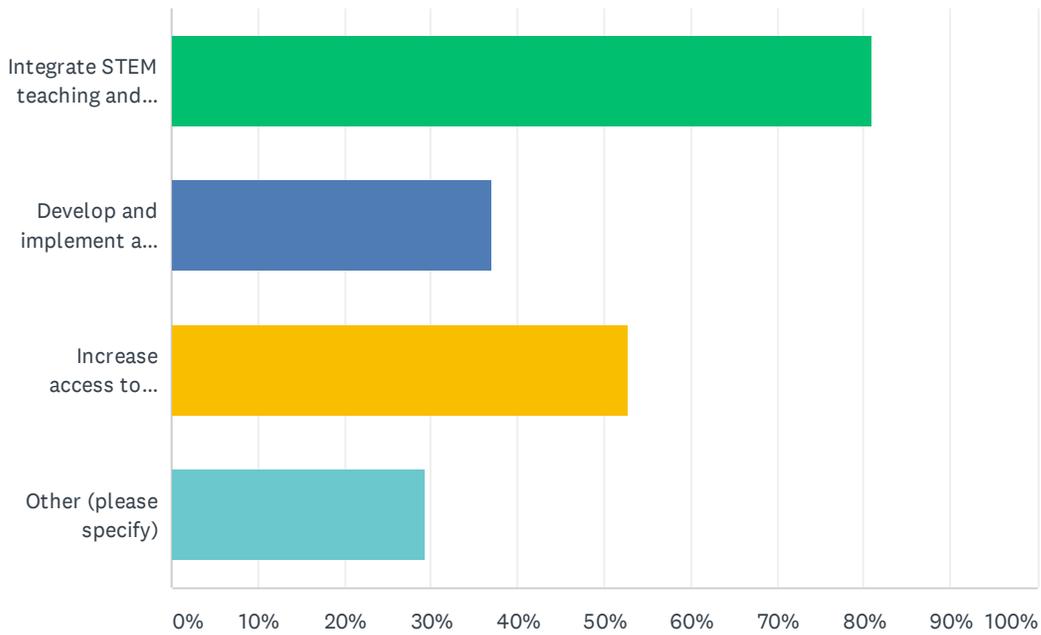
ANSWER CHOICES	RESPONSES	
Increase time on science in elementary school	39.33%	35
Incorporate applied learning, project-based learning, and other engaging STEM-based practices into P-12 math and science curricula	66.29%	59
Provide community-based resources, such as community STEM events, maker spaces, and take-home STEM kits	17.98%	16
Provide access to out-of-school STEM learning opportunities, including after school and summer opportunities	24.72%	22
Offer opportunities for P-12 students to interact with STEM professionals	21.35%	19
Offer STEM-based work experiences for high schools students	22.47%	20
Other (please specify)	7.87%	7
Total Respondents: 89		

## Revising Oregon's STEM Education Plan

#	OTHER (PLEASE SPECIFY)	DATE
1	Increase learning opportunities/interactions between high school CTE teachers, their students, and their P-12 peers.	3/31/2020 10:36 AM
2	Chief Science Officer program to gain youth voice in barriers and hopes for STEM education and to serve as STEM ambassadors.	3/30/2020 1:51 PM
3	CTE is proven to increase Grad Rates. The pathways are aligned to Oregon work sectors. CTE teachers in many areas are in super short supply. Math and Science teachers are swamped with existing curriculum. We need a full year of CTE required to graduate and we need CTE teacher training programs in the areas where we have open job recs: i.e. Computer Science, Automotive, Construction, etc.	3/24/2020 6:55 AM
4	This outcome is really not relevant or useful - how do you propose measuring your outcomes? Not all goals have to have quantifiable results, but if it's going to be directive number one, it should be much more SMART goal oriented. None of these proposed activities will necessarily do the thing you want to do because the thing you want to do is too squishy and amorphous. I picked the incorporate applied learning strategy because it wouldn't let me move forward without picking a second strategy. I don't actually want to vote for that strategy though.	3/23/2020 9:16 AM
5	We can provide classes and books to educate high school students	3/19/2020 12:24 PM
6	Increase computer science and engineering curriculum experiences in the pre K-8 grades	3/19/2020 9:42 AM
7	Audit number of STEM activities each student participates in during their k-12 experience that exercises specific tasks (eg tackling something they have never seen before, mastering this new thing, working in a group, making presentation). The confidence and competence developed in doing STEM projects are far more important in developing future employees and leaders than the actual skills themselves. Technology had a pretty short shelf life, but the ability to successfully adapt to a changing world will always be needed	3/17/2020 2:49 PM

**Q4 Outcome II: Students are prepared to enter a STEM postsecondary training and education pathway or a STEM career** Select the two most important strategies for Outcome II over the next five years. If you do not see one of your top two strategies listed, please select "Other" and write the strategy in the comment box.

Answered: 89 Skipped: 5



ANSWER CHOICES	RESPONSES	
Integrate STEM teaching and learning principles across K-12 curricula	80.90%	72
Develop and implement a statewide plan for providing all students with digital literacy and computer science education	37.08%	33
Increase access to college-level STEM courses and STEM-related CTE courses and programs of study in high school	52.81%	47
Other (please specify)	29.21%	26
Total Respondents: 89		

## Revising Oregon's STEM Education Plan

#	OTHER (PLEASE SPECIFY)	DATE
1	Develop pipeline programs in middle school for STEM and CTE programs aligned to high wage and high demand jobs to build interest for HS programs.	4/7/2020 11:38 AM
2	Provide robust, sustained, and ongoing professional development for STEM at all levels of the educational system.	4/7/2020 10:51 AM
3	Improve the quality and rigor of reading, writing, communication skills, mathematics, and liberal arts.	3/31/2020 9:55 PM
4	Increase STEM-related CTE coursework and Programs of Study (POS) Pathways in middle schools, that are directly connected to established CTE POSs, as well as establishing "early CTE POS Pathways" opportunities in PK-5	3/31/2020 10:36 AM
5	Ensure students understand how to access aligned post-secondary CTE and STEM education/training pathways	3/30/2020 4:14 PM
6	Integrate relevant STEM career-focused advising across K-12	3/30/2020 2:40 PM
7	Hands on learning/internship	3/30/2020 2:23 PM
8	Provide "bridge" opportunities between high school and post-secondary that connect the two.	3/30/2020 1:51 PM
9	Improve access to out of school non-profits that provide opportunities for connections to STEM career interactions with businesses.	3/30/2020 12:39 PM
10	Expose elementary students to STEM curriculum and activities. Elementary students RARELY have a chance for STEM teaching due to the high demands for reading and math. Expose students early so they will be interested in Middle and High School.	3/27/2020 2:35 PM
11	Create a plan to increase STEM-related job opportunities for high schoolers (or to connect high schoolers with extant STEM-related jobs)	3/25/2020 12:30 PM
12	Teacher PD in STEM courses and STEM-related CTE courses. These courses are significantly elective. Without outstanding teachers the students will not "elect" to take these courses. We don't create "shop" teachers anywhere in Oregon. OSU closed their program in 1991 - 30 years ago. This is a major example of where teacher PD is totally lacking. There is no Computer Science/Digital Literacy Collegiate Teacher Training Program in Oregon that is producing graduates ready to teach K-12.	3/24/2020 6:55 AM
13	Coordinate with the p-sec partners to see what minimum courses they require for students to go into a STEM major without remedial courses. Measure how many students are meeting that bar today, and make a plan for increasing the number of students meeting the bar by X percent. I picked the integrate STEM teaching strategy because it wouldn't let me move forward without picking a second strategy. I don't actually want to vote for that strategy though.	3/23/2020 9:16 AM
14	We (The Tech Academy) can provide online training and books to help with this.	3/19/2020 12:24 PM
15	Summer and after-school programming, accessible to all.	3/19/2020 8:59 AM
16	Community based internships (out of school time) that provide exposure and programmatic strengthening of STEM literacy and field related (college/career) interest and readiness.	3/19/2020 8:59 AM
17	Create seamless pathways for students to transfer credits to college-level programs.	3/18/2020 1:46 PM
18	Develop partnerships with STEM professionals, especially women and people of color, to be in classrooms and provide work-based learning opportunities for students	3/18/2020 11:52 AM
19	Regional coaching available to educators through STEM hubs.	3/17/2020 2:07 PM
20	The first check-focus on K-8 STEM education. Provide sustainable PD for teachers! Gr.9-12 focus on CTE courses and teacher PD that offered STEM for many years! STEM has it being implemented in most HS is not attracting underserved students.	3/17/2020 12:59 PM
21	Increase time spent teaching science in elementary schools, along with the PD to support teachers in doing so.	3/17/2020 10:33 AM
22	Have high school courses align with certifications in post-secondary programs to earn accreditation while in high school (ex. NIMS, safety, caliper measurement, etc)	3/16/2020 7:45 AM

## Revising Oregon's STEM Education Plan

23	Provide the opportunity for more CTE classes in all high schools	3/14/2020 7:42 PM
24	Deliver Learning in a problem/project based format that includes team work and focuses on community needs and contexts...health, nutrition, economics, human-built infrastructure	3/13/2020 2:09 PM
25	Offer more applied STEM opportunities to students.	3/12/2020 4:21 PM
26	Provide students with interaction, mentorship, and internships with STEM Professionals	3/11/2020 1:07 PM

## Q5 Do you have any additional input on Goal 1's proposed outcomes and strategies?

Answered: 28 Skipped: 66

## Revising Oregon's STEM Education Plan

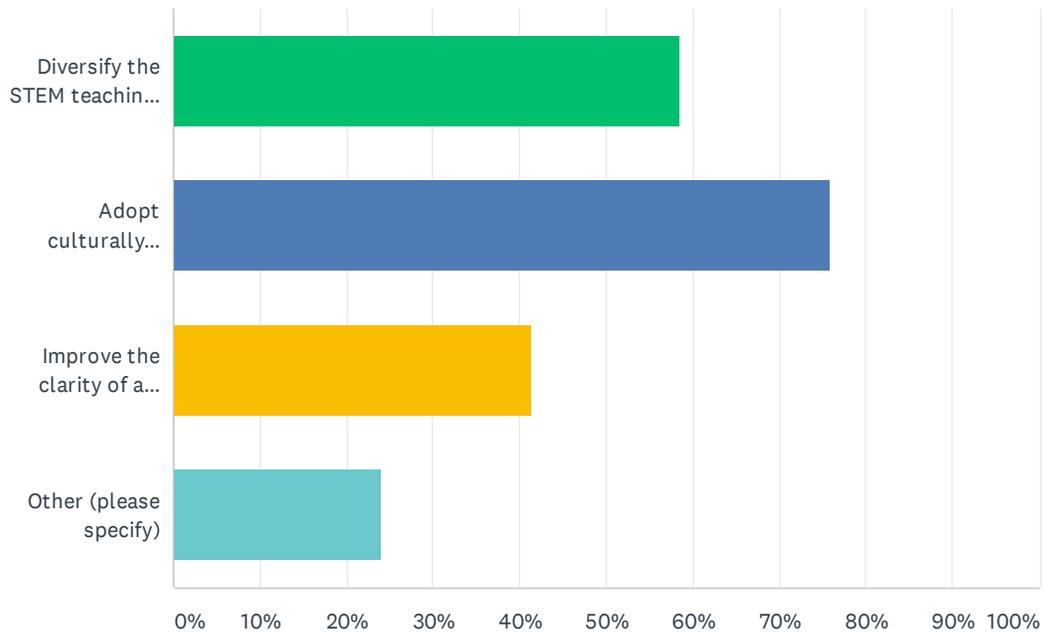
#	RESPONSES	DATE
1	teacher professional development is critical so they can understand how to educate our children in a applied, hands on learning environment	4/9/2020 9:10 AM
2	The formation of STEM Identity in students is critical if they are to be successful beyond elementary school and into careers. Measuring and using data to guide instruction on this dimension will be critical. Portland Metro STEM Partnership has a student survey that does just this.	4/7/2020 10:51 AM
3	Provide STEM certificates as a State-wide graduation award	4/3/2020 10:16 AM
4	no	3/31/2020 10:36 AM
5	No	3/30/2020 2:40 PM
6	Increase STEM learning K-12 cross curricula paired with creating access to STEM and CTE pathways.	3/30/2020 1:59 PM
7	Support for co-curricular camps and hands on learning.	3/30/2020 1:44 PM
8	No	3/30/2020 12:39 PM
9	Our school district lost our elementary robotics program. Now our middle school program is dwindling. We have to engage students in stem early 3-5 so they will have that identity moving into middle school and for some it will remain in high school.	3/30/2020 7:45 AM
10	STEM education needs to be a priority in elementary schools. Students need to be exposed to these concepts when they are young and not afraid to fail.	3/27/2020 2:35 PM
11	STEM Investment Council originally had a goal of increasing the math proficiency of 4-8 graders. That was measurable and clear. What happened to that goal? Also - the STEM Hubs were to be significantly funded from outside sources. They all seem to be in competition for state money now. The original committee work and legislative intent seems to have been lost.	3/24/2020 6:55 AM
12	Delete and rewrite outcome 1.	3/23/2020 9:16 AM
13	Ensure curricula is culturally relevant to all students, as well as provide them with diverse educators to connect with and teach students.	3/23/2020 9:02 AM
14	I think it is wonderful that attention is being given to this important issue.	3/19/2020 12:24 PM
15	Focus on computer science and engineering (the T and E of STEM). Math and science is required in the K11 system and has a solid state support system. CS and engineering curriculum does not.	3/19/2020 9:42 AM
16	Hands-on, Inquiry-based programming that is fun, engaging, and encourages the development of soft skills.	3/19/2020 8:59 AM
17	Exposure to STEM innovators and role models is key according to Alex Bell's research from Harvard (Equal Opportunity Project) of where America's Innovators are coming from.	3/19/2020 8:59 AM
18	It is important for high school guidance counselors and college and career readiness counselors to understand industry needs. They must be able to identify students that can fit the skill sets needed within the industry. Counselors and teachers should work with industry to learn trade skills and know both CTE requirements and have a good understanding of the apprenticeship process.	3/18/2020 1:46 PM
19	Better tools are needed for districts and its partners to make this all happen and track the equity impact	3/18/2020 11:52 AM
20	Sustainability! Too much money/time is spent on writing, managing grants and on STEM Hubs instead of ensuring the money is spend in teacher training to change instructional practices which at end will benefit our students and future.	3/17/2020 12:59 PM
21	It cannot be underscored how important building a positive early STEM identity among students is in terms of students pursuing postsecondary options.	3/17/2020 10:33 AM
22	No	3/16/2020 4:21 PM
23	More STEM/CTE practices at a younger age throughout K-12 education, particularly, project-	3/16/2020 7:45 AM

## Revising Oregon's STEM Education Plan

	based learning.	
24	STEM is not content so much as tools and ways to invest in well-vetted knowledge so, for example, NGSS works best when this mindset is for ALL students, across content. It's not training!	3/13/2020 2:09 PM
25	The more the student can see how STEM affects their day to day life, and the more they can feel STEM is not "hard" or difficult, the better. Look at the language we use every day to describe math for example. How many negative perceptions do we unconsciously convey just in our everyday conversations? We start with subtle things - such as acknowledging it can be difficult before a student expresses difficulty, etc.	3/12/2020 4:40 PM
26	Require school districts to develop K-12 STEM integration plans as a condition for continued M98, SSA and SIA funds	3/12/2020 1:37 PM
27	Increase teacher and administrative PD around the Engineering Design Process, Maker Mindset, and PBL	3/11/2020 4:38 PM
28	The applied learning and access to STEM professionals might not be sufficient if it's not reinforced with in-class exposure to science and tech curriculum (P-12).	3/3/2020 10:07 AM

**Q6 Outcome III: Students from underserved/underrepresented communities see futures in STEM.** Select the two most important strategies for Outcome III over the next five years. If you do not see one of your top two strategies listed, please select "Other" and write the strategy in the comment box.

Answered: 87 Skipped: 7



ANSWER CHOICES	RESPONSES	
Diversify the STEM teaching workforce	58.62%	51
Adopt culturally relevant, place-based contexts as the basis for STEM lesson plans, units, and courses	75.86%	66
Improve the clarity of and access to up-to-date information and data on STEM education pathways and careers	41.38%	36
Other (please specify)	24.14%	21
Total Respondents: 87		

## Revising Oregon's STEM Education Plan

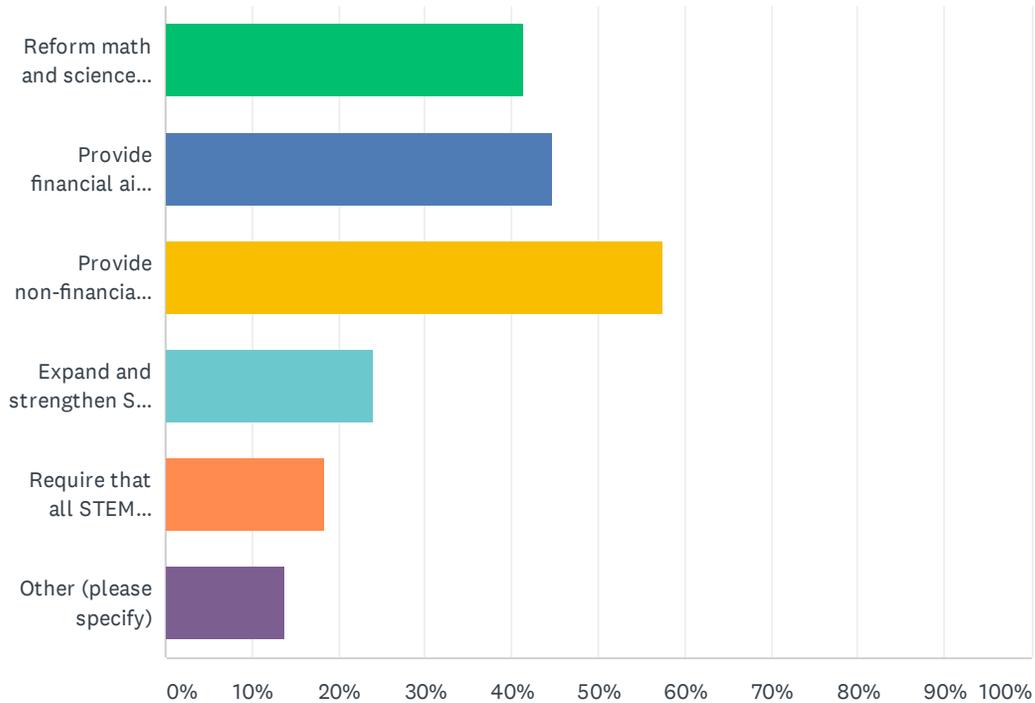
#	OTHER (PLEASE SPECIFY)	DATE
1	allocate extra resources to improve math and science outcome and interest in stem careers for underserved/underrepresented students	4/9/2020 9:16 AM
2	Diversifying the teaching workforce is critical; however, that requires more than a 5 year commitment. Equally important in the interim is to provide access to role models, mentors, etc. that represent underserved/underrepresented populations.	4/7/2020 10:57 AM
3	Provide administrators and teachers resources to implement STEM education pathways in the elementary and especially middle schools.	4/1/2020 7:41 AM
4	Not certain.	3/31/2020 9:57 PM
5	Create plans that connect with families and communities, provide out of school opportunities that introduce STEM education and career highlights. Studies show that in Southern Oregon where this has happened, enrollment in STEM/CTE programs have increased as well as graduation rates for under served/underrepresented students.	3/30/2020 2:15 PM
6	Develop STEM based learning opportunities from the interests/needs of these student groups.	3/30/2020 1:53 PM
7	Improve partnerships with out of school non-profits that are already serving underserved students.	3/30/2020 12:43 PM
8	Reduce the opportunity gap for US/UR communities to access high quality programs in their communities	3/27/2020 2:42 PM
9	Students have to have an engagement point. Offering more math and science classes has not moved the needle. Offering more CTE has moved the needle. The research shows CTE works. We need a CTE requirement. We also know that sports teams works for engagement. We need Coaching stipends and contests/showcases for STEM and CTE. FFA is a model of how contests and curriculum are aligned. Too many people on the STEM Investment Council are totally uninformed and inexperienced with these highly successful models. The Council needs one half of the members to have strong CTE experience in their backgrounds. Einstein said "Trying to solve a problem with the same thinking that got you into the problem will not work". The STEM Investment Council is out of touch with working Oregon.	3/24/2020 7:15 AM
10	Same critique for this outcome as for outcome 1 in goal 1. This one is slightly better because at least there is a specific group of students to target. There is a pretty big assumption embedded in this outcome though. By making the outcome that "underrepresented students should see futures in STEM", you're assuming that these students don't currently see futures in STEM. Is that accurate? How do you know? Right now, the problem is phrased in terms of the students having the problem, but the problem is much more likely to be in the adults. We know from research on implicit bias that elementary school age girls are interested in math equal to boys, but then at some point around middle school their interest drops off significantly. It doesn't have anything to do with the girls - it has to do with the adults. This outcome is ok-ish - and diversifying the STEM teaching force is an evidence based practice - the literature indicates that it can make a big difference. The final step to writing the outcome would be to take the problem off of the students and put the problem on the adults.	3/23/2020 9:29 AM
11	We are willing to help develop curriculum and provide access to our class content.	3/19/2020 12:25 PM
12	Embed in the PreK-8 grades required CS and engineering curriculum to reach all students.	3/19/2020 9:52 AM
13	Provide funding for undeserved population to participate in out of school time enrichment opportunities that provide exposure to STEM role models and innovators.	3/19/2020 9:02 AM
14	Create ways for students from low-income, rural, and underrepresented student populations to have equal access to STEM-related curriculum. Including summer opportunities that incorporate ways to break down barriers such as cost and transportation.	3/18/2020 1:49 PM
15	As mentioned already previously, the number one strategy (short term and long term) is to spend time on teacher training on how to build cross curricular lessons, project based learning, group work dynamics.	3/17/2020 1:29 PM
16	Increase the representation of underserved/underrepresented communities in the narratives we spread regarding STEM. Have STEM professionals of color and those who have overcome adversity (i.e. poverty) present in schools to share their journey with students. Representation is a tremendously powerful gateway to diversity, inclusion, and, ultimately, equity.	3/17/2020 12:41 PM

## Revising Oregon's STEM Education Plan

17	Create pathways for students without personal connections to see/experience STEM outside of school.	3/17/2020 9:12 AM
18	Provide materials in other languages/remove language barriers	3/16/2020 8:00 AM
19	The third is okay but too limited...to see STEM in all career pathways...we need a more human workforce, not more trained, training is easy, synthesis is creative. I want her to bring her art and communication skills to the table too and see her works as integral in something significant and meaningful.	3/13/2020 2:17 PM
20	Require school districts to conduct internal K-12 STEM resource and implementation audits with corresponding action plans as part of their M98, CTE/Perkins, SSA, and SIA strategiv plans.	3/12/2020 1:51 PM
21	1.Provide Counselor Training so that counselors at the middle and high school levels can have a full understanding to help guide students in class opportunities paired with educating families early on regarding education and career opportunities.	3/11/2020 10:44 AM

**Q7 Outcome IV: Students from underserved/underrepresented communities pursue and succeed in postsecondary STEM education and training, and/or STEM careers** Select the two most important strategies for Outcome IV over the next five years. If you do not see one of your top two strategies listed, please select "Other" and write the strategy in the comment box.

Answered: 87 Skipped: 7



ANSWER CHOICES	RESPONSES	
Reform math and science course content, sequencing, and/or tracking	41.38%	36
Provide financial aid for postsecondary students from underserved/underrepresented communities pursuing STEM postsecondary education and training pathways	44.83%	39
Provide non-financial supports, such as counseling and mentoring, for students from underserved/underrepresented communities intending to pursue STEM education and careers	57.47%	50
Expand and strengthen STEM alumni and professional networks for students of color and women	24.14%	21
Require that all STEM funding go to activities that serve a significant number of students from underserved/underrepresented communities	18.39%	16
Other (please specify)	13.79%	12
Total Respondents: 87		

## Revising Oregon's STEM Education Plan

#	OTHER (PLEASE SPECIFY)	DATE
1	Require the MAJORITY but not all STEM Funding go to supporting a significant number of students from underserved/underrepresented communities.	4/7/2020 10:57 AM
2	Strengthen Pathway creation: STEM/CTE as well as counselor training/parent engagement early on. Provide age appropriate career exposures early on that are consistent with pathways in local communities aligned to post-secondary education linked to high wage, high demand careers in STEM/CTE.	3/30/2020 2:15 PM
3	Partner with out of school non-profits that are already doing this kind of work.	3/30/2020 12:43 PM
4	Ongoing Equity training for the existing STEM education workforce to reduce bias and racism	3/27/2020 2:42 PM
5	Provide more engagement in contests and showcases that apply STEM skills. Sports is the model. FFA and DECA/FBLA, Skills USA, etc. are models. Align curriculum with winning or showcases. Students believe something is important when parents and community members cheer them on. Less than 2% of Oregon students are in a Robotics Competition. This is sad. What percentage of kids are in a OSAA event? Band does not succeed by never having a performance and only practicing during the class period. Models are out there, but the STEM Investment Council has been weak to pursue them.	3/24/2020 7:15 AM
6	Provide non-financial supports (included in example above) and financial supports including access to up to date technology for hands on continuous exposure.	3/19/2020 3:15 PM
7	Require Computer science and engineering curricula at the preK-8 grade so that all. Including underserved student, can choose a STEM pathway to post grad careers.	3/19/2020 9:52 AM
8	First check focus specifically in K-8 education! K-5 should have a heavy focus on computational thinking which can be found in all sorts of content. Design thinking! Yes there are times and the need of a stand alone math lesson and reading etc. But too much time is spend on testing students reading levels, fluency etc. Additionally so much time is lost in not spending funding for early learning. Hopefully with the student success act early learning educators will receive the funding and pay they deserve.	3/17/2020 1:29 PM
9	Have teachers go through professional development on trauma informed care, equity/diversity/inclusion, multicultural/multilingual understandings to have staff that understand the landscape.	3/16/2020 8:00 AM
10	Collaborate with employers to help the STEM workplace evolve to be more inclusive and welcome for all underrepresented populations. As a former worker in a STEM field, I reflect on the workplace culture and environment, and wonder why any person of color, trans person, or woman would have wanted to work in some of the workplaces I was in! Strong mentoring supports are also crucial to change the culture and support students as they explore possible STEM careers	3/12/2020 4:45 PM
11	Require that districts implement integrated STEM learning methods K-12. Prioritize STEM implementation strategies and timelines for schools with highest underserved/underrepresented student groups.	3/12/2020 1:51 PM
12	STEM supports for schools with high underserved/underrepresented populations. Making STEM a priority on state level so those schools will prioritize it, rather than focusing just on ELA/math/attendance.	3/11/2020 1:10 PM

## Q8 Do you have any additional input on Goal 2's proposed outcomes and strategies?

Answered: 22 Skipped: 72

## Revising Oregon's STEM Education Plan

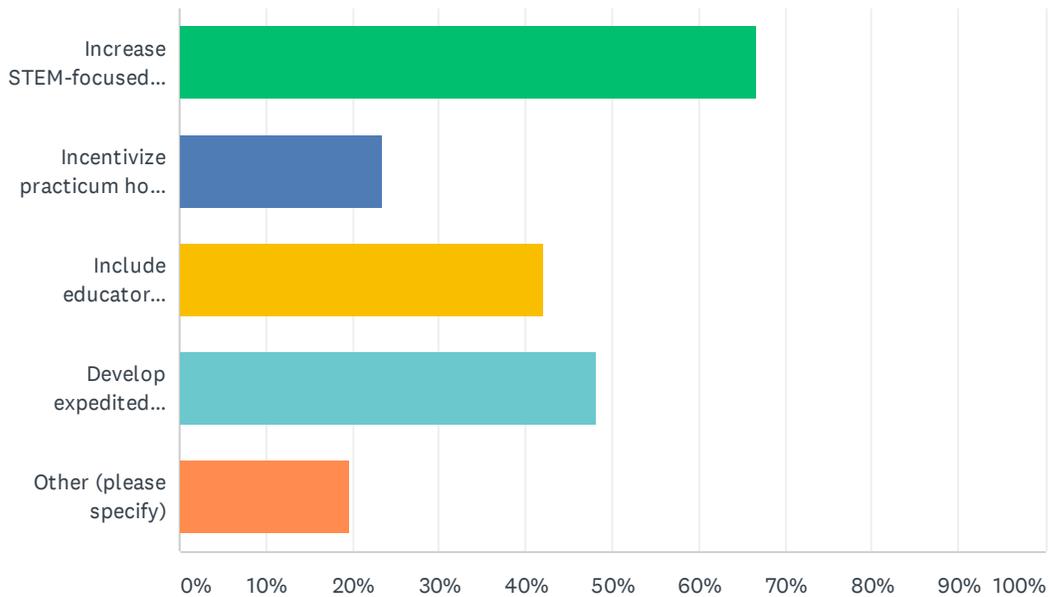
#	RESPONSES	DATE
1	For Goal 2 - Outcome IV, there are strategies that post-secondary programs need to implement to improve success for diverse learners. There are also strategies that K-12 needs to implement to build a pipeline ready to go in to those post-secondary programs. This goal needs to address both.	4/7/2020 11:43 AM
2	Goal 2 should also have strategies connected to STEM opportunities outside of school, leveraging community-based organizations that serve those communities. STEM Beyond School has demonstrated how to do this successfully, while buidling the capacity of those organizations to continue the work on their own. Funding for this type of program needs to continue.	4/7/2020 10:57 AM
3	More professional development to help P-12 educators inplement best practices for achieving Goal 2	4/1/2020 12:30 PM
4	no	3/31/2020 10:39 AM
5	No	3/30/2020 2:42 PM
6	Title IX restrictions have historically impeded targeting girls, who are an underrepresented STEM population.	3/30/2020 2:25 PM
7	We need to focus on getting to know every student...their needs, aspirations, what excites them; get to know their strengths and weakness...build them up in their strengths and show them the way.	3/30/2020 2:15 PM
8	No	3/30/2020 12:43 PM
9	High school tracking of STEM courses results in expectation, opportunity, and access for underserved students. Collaboration with school administrators and counselors is essential. Additional work is needed to decolonize STEM education.	3/27/2020 2:02 PM
10	Students from under served groups need coaching and mentoring from those who they identify with in their group. This can also be older students to younger students. The contests and showcases are places where this can happen. Summer Camps with student leaders give a point of concentrated involvement. County fairs are one of the oldest institutions in Oregon. 4-H and FFA are models of creating engagement for youth. There are proven models that work. The US has one of the most productive Agriculture systems in the world. How did we get there?	3/24/2020 7:15 AM
11	The strategies in question 7 are really good! Thumbs up on all of those possible strategies - there is a large body of research on all of them, and they're all found to be effective in changing student outcomes for the better.	3/23/2020 9:29 AM
12	STEM education should be required for all high school students.	3/19/2020 12:25 PM
13	Including diversity in the classroom with industry partnerships is critical. Also, providing pathways for students not specifically headed to a secondary education institution that is supportive and helpful for students to achieve the needed training to fill hands-on industry jobs.	3/18/2020 1:49 PM
14	Rethink the STEM Hubs! As mentioned structurally a lot of things are in place in school districts and ESD's provide those place with the financial support so that they can give educators training, lesson planning time, collaboration time etc. Too much money is spend on administration!	3/17/2020 1:29 PM
15	I believe we need to all continue our own equity journey in a safe, yet facilitated way. I recommend "Taking it Up" or CFEE for STEM hub directors and staff.	3/17/2020 12:41 PM
16	No	3/16/2020 4:31 PM
17	Understanding the landscape, population, and their challenges is key. Representation (in staff and learning) and empathy is the only way to increase participation.	3/16/2020 8:00 AM
18	This applies above...there is a strong community, precollege, STEM hub lead collection of regional initiatives that link to reaching and supporting underserved youth through programs such as MESA, SMILE, and others. They are effective, support multiple goals and need to expanded	3/13/2020 2:17 PM
19	Question 7 needs more than two options - it needs all of the above and then some!	3/12/2020 4:45 PM

## Revising Oregon's STEM Education Plan

20	Equitable STEM opportunities and access for all secondary secondary students requires intentional, integrated STEM experiences at the elementary level.	3/12/2020 1:51 PM
21	We will really need help in tracking these outcomes, especially enrollment in post-secondary programs (but even HS courses too).	3/11/2020 1:10 PM
22	no	2/24/2020 12:26 PM

**Q9 Outcome V: New educators enter the teaching workforce with a deep understanding of STEM teaching and learning principles, and STEM content knowledge. Select the two most important strategies for Outcome V over the next five years. If you do not see one of your top two strategies listed, please select "Other" and write the strategy in the comment box.**

Answered: 81 Skipped: 13



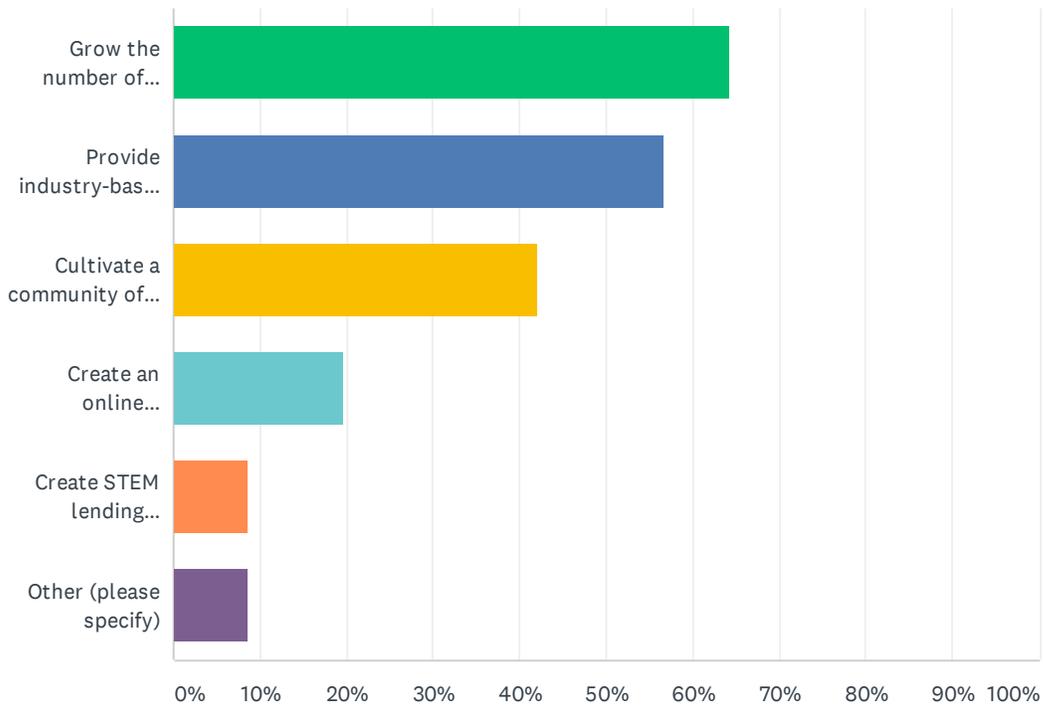
ANSWER CHOICES	RESPONSES	
Increase STEM-focused tracks in educator preparation programs	66.67%	54
Incentivize practicum hours to be earned in STEM classrooms	23.46%	19
Include educator preparation faculty in STEM educator communities of practice	41.98%	34
Develop expedited pathways for STEM professionals to become educators	48.15%	39
Other (please specify)	19.75%	16
Total Respondents: 81		

## Revising Oregon's STEM Education Plan

#	OTHER (PLEASE SPECIFY)	DATE
1	develop and educate teachers on the how to teach through applied /hands on learning so that they can better engage and excited students on the career possibilities in STEM/CTE	4/9/2020 9:21 AM
2	Increase CTE/STEM focused tracks in educator preparation programs (i.e. CTE endorsement) CTE IS STEM	3/31/2020 11:04 AM
3	Make STEM teaching/learning principles part of EVERY teacher prep program. This should not be for only some. STEM principles should be a way of life.	3/30/2020 2:22 PM
4	Work with HECC and TSPC to develop a actual HS to Bachelors teaching programs in Oregon.	3/30/2020 2:05 PM
5	I really can't tell what the implementation of the above choices would be. We need strong teacher preparation programs and we need strong best practice teacher in-service. We need to empower those who have demonstrated results to share their best practice implementations. We need more highly successful teachers teaching other teachers in summer workshops. We need to pay teachers to attend summer workshops and pay those model teachers to teach those workshops.	3/24/2020 7:27 AM
6	Huge 'NO' vote on developing expedited pathways for professionals. If half of the goal is that educators will have knowledge of teaching and learning principles, nothing could be worse than taking people with no teaching experience and making them teachers.	3/23/2020 9:34 AM
7	Funding for our school would be helpful so we could allow scholarships, etc.	3/19/2020 12:26 PM
8	Provide the Funding/grants to the Oregon Computer Science Teachers Association for the foreseeable future. Science and math teachers are trained in our college/university pre service education programs. There are no such teacher training programs in Oregon for Computer CS I Ence and engineering. The Oregon Computer Science Teachers Association has filled that void by providing professional development in high tech K-12 education to over 600 Oregon educators a year Over the last several years. This was done as a result of the ODE Digital Literacy Grants. The DL grant, or other state funding was not extended to OCSTA this biennium. As a result, OCSTA likely will only train around 200 educators this as year. If this goal is to be met, then funding should be allocated to OCSTA, which has proven to train large numbers of educators and has supported the implementation and development of CS and engineering programs in the Oregon K-12 system.	3/19/2020 10:15 AM
9	Provide opportunities that incorporate both professional development, and immediate application of the newly learned skills	3/19/2020 9:06 AM
10	Increase trainings for teachers already in the workforce.	3/17/2020 1:33 PM
11	At a *minimun*, educator preparation programs need to devote more required coursework to teaching in an inquiry-based, discourse-rich learning environment. This looks different in math vs. science, but there is a ton of overlap!	3/17/2020 12:47 PM
12	None of these are very good...first you are confusing STEM with just standards areas of content...the biggest barrier is that K-12 content bins look very little like the real world. The best reform, by far would be to support the work in Beaverton, and others, to restructure HS content bins...	3/13/2020 2:23 PM
13	Instructor qualifications for dual credit tend to experience a mismatch of qualifications candidates have vs what is required by accrediting agencies for a teacher to offer dual credit. Increasing opportunities and supports for educators to take relevant graduate level coursework at little or no expense to them would go a long way in ameliorating that issue.	3/12/2020 4:48 PM
14	Support differentiated salaries for industry professionals coming into teaching from high demand/high skill industries e.g., Health Sciences, Computer Science and Engineering.	3/12/2020 2:07 PM
15	More required time on science and STEM in teacher prep programs so ALL teachers, not just those most interested, are well prepared.	3/11/2020 1:14 PM
16	Make STEM practices part of the educator preparation program. This can happen without it being a STEM track. Provide project based, hands on, contextualized learning throughout the prep program so that these teaching skills are part of who they are as teachers and can apply them no matter what subject they are teaching.	3/11/2020 10:49 AM

**Q10 Outcome VI: The P-12 educator workforce has access to regular, high-quality STEM professional learning opportunities and resources. Select the two most important strategies for Outcome VI over the next five years. If you do not see one of your top two strategies listed, please select "Other" and write the strategy in the comment box.**

Answered: 81 Skipped: 13



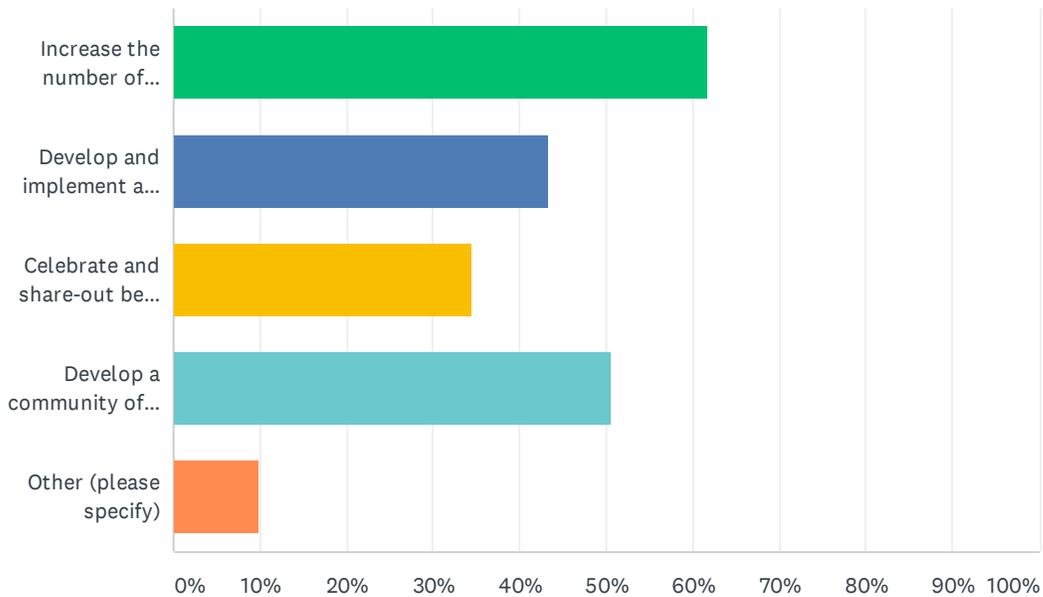
ANSWER CHOICES	RESPONSES	
Grow the number of STEM-based professional development sessions and communities of practice	64.20%	52
Provide industry-based experiences for STEM educators	56.79%	46
Cultivate a community of STEM teacher leaders	41.98%	34
Create an online repository of STEM instructional resources	19.75%	16
Create STEM lending libraries for educators	8.64%	7
Other (please specify)	8.64%	7
Total Respondents: 81		

## Revising Oregon's STEM Education Plan

#	OTHER (PLEASE SPECIFY)	DATE
1	Coordinate/Create community landing spot for educators to access all/most of the STEM-based professional development sessions and communities of practice offered by the	4/3/2020 11:55 AM
2	Develop greater cross curricular training to incorporate STEM practices and content throughout the student schedule.	3/30/2020 2:05 PM
3	Science and math educators have access to the above resources. CS and engineering educators access that community and that support system through the OCSTA.	3/19/2020 10:15 AM
4	Provide opportunities that incorporate both professional development, and immediate application of the newly learned skills. Research shows this combination is what changes teacher practice in the classroom.	3/19/2020 9:06 AM
5	Provide stipends for STEM teachers to lead STEM groups - encourage teachers to lead STEM national and local competitions in the same way athletics is incentivized.	3/18/2020 1:52 PM
6	STEM Fellowship Program where fellows (educators) are given time to facilitate PD as part of their service requirement.	3/17/2020 12:47 PM
7	All K-12 educators need to be trained in integrated STEM teaching and learning methods. We can no longer teach STEM content in subject specific, categorical, unintegrated ways.	3/12/2020 2:07 PM

**Q11 Outcome VII: School and district leaders adopt STEM teaching and learning principles school-and district- wide. Select the two most important strategies for Outcome VII over the next five years. If you do not see one of your top two strategies listed, please select "Other" and write the strategy in the comment box.**

Answered: 81 Skipped: 13



ANSWER CHOICES	RESPONSES	
Increase the number of school and district administrators receiving high-quality STEM professional development	61.73%	50
Develop and implement a school-wide STEM transformation process	43.21%	35
Celebrate and share-out best practices and success stories	34.57%	28
Develop a community of STEM administrator leaders	50.62%	41
Other (please specify)	9.88%	8
Total Respondents: 81		

## Revising Oregon's STEM Education Plan

#	OTHER (PLEASE SPECIFY)	DATE
1	Develop stronger alliances between existing CTE teachers and their "Core" teaching peers in both high schools and middle schools, in order to introduce students to STEM related fields earlier in the education careers	3/31/2020 11:04 AM
2	This outcome isn't going to work in Oregon. Because of local control, mandating that anything is going to happen state wide is dead on arrival. Any school or district can opt out of literally anything if they petition the state. This outcome should probably get replaced.	3/23/2020 9:34 AM
3	Again, we are willing to help with this by delivering classes, providing course curricula, and books.	3/19/2020 12:26 PM
4	If this is starting(which it is) don't stop funding for this effort after two years. This transformation process will take time! Lots of time and include administrators in that process	3/17/2020 1:33 PM
5	Develop a community of STEM administrator leaders - that is representative of our student demographics.	3/12/2020 4:48 PM
6	Tie grant funds - M98, SSA, SIA, etc., - to adoption and implementation of STEM teaching and learning principles	3/12/2020 2:07 PM
7	NA	3/12/2020 10:26 AM
8	Prioritize at state level so administrators will see value/need to engage.	3/11/2020 1:14 PM

## Q12 Do you have any additional input on Goal 3's proposed outcomes and strategies?

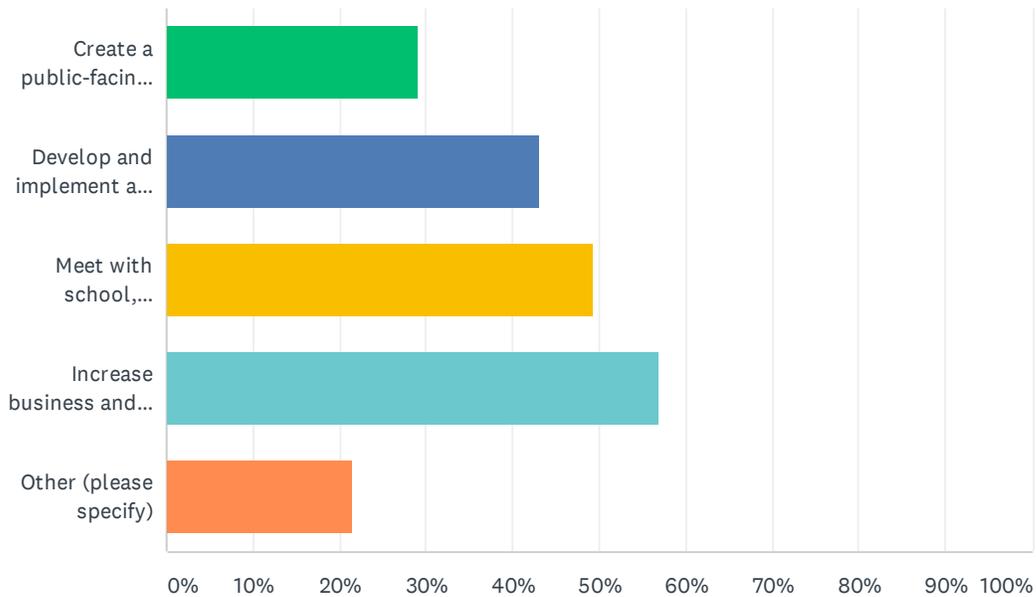
Answered: 18 Skipped: 76

## Revising Oregon's STEM Education Plan

#	RESPONSES	DATE
1	Goal 3 notes informal educators, but none of the outcomes relate to informal educators. This is a gap that needs to be addressed.	4/7/2020 11:46 AM
2	Goal 3 is THE HIGHEST LEVERAGE STRATEGY (sorry for shouting but this cannot be emphasized more!). We will never change student outcomes without changing teacher and administrator actions, and the ONLY way to do that effectively is through powerful, relevant, timely, and actionable professional learning that is job-embedded and peer-support. Too little funding supports the development of instructional coaches, mentors and the like. Having a 0.5FTE STEM coach is critical for supporting teachers throughout a school so that ALL students benefit Single teacher, isolated PD does not create the conditions needed to impact student outcomes.	4/7/2020 11:11 AM
3	School Counselors are also very important community for helping to implement Oregon's STEM Education Plan. We need to dedicate more resources to informing and training them for this plan	4/1/2020 12:38 PM
4	no	3/31/2020 11:04 AM
5	No	3/30/2020 2:45 PM
6	Develop not just district and admin level STEM focus...but make it cross cultural. Based on our Project Impact survey results, buy-in is most likely to happen when PD and learning takes place in teams of Admin WITH their team of teachers. It is less likely to work when you have just admin or just teachers.	3/30/2020 2:22 PM
7	State level leadership in cross curricula STEM instruction targets for administrators.	3/30/2020 2:05 PM
8	Moving STEM forward in an equitable way will involve buy in from administration. We have provided PD for teacher leaders at STEM hubs for several years, but the firewall to implementation across districts has been lack of admin support. This is a key component to moving STEM forward equitably. Otherwise, I fear STEM will flourish in pockets, but sadly flounder in many schools and classrooms.	3/27/2020 4:51 PM
9	As a former STEM teacher, now administrator, is see a great need for STEM education for school and district level administrators.	3/27/2020 2:04 PM
10	Most of those in administration did not come from STEM careers. Even fewer have CTE or industry experience. Part of the reason Athletics is huge is because many have athletic experience in their backgrounds. A deeper dive into why things are what they are could be insightful.	3/24/2020 7:27 AM
11	No	3/19/2020 12:26 PM
12	Can we incentivize STEM educator coursework through a TSPC specialization or endorsement? What about working through the NBCT community which is largely not present in Oregon?	3/17/2020 12:47 PM
13	No	3/16/2020 4:33 PM
14	All of these are excellent approaches, but rural communities/districts must be considered with this implementation as there are many barriers (location, accessibility, staffing, etc) that prevent this from being possible.	3/16/2020 8:24 AM
15	We need to support diversity and innovation rather than cookie-cutter solutions...there is greater capacity if we give teachers permission to measure their success based on interest and engagement as the foundation to learning...drop the focus on the content standards in NGSS and get back the A framework for K-12 Science Education	3/13/2020 2:23 PM
16	No	3/12/2020 2:07 PM
17	Support New Educators with writing Professional Goals around STEM	3/11/2020 4:46 PM
18	More state leadership would likely help in making STEM prioritized and seen as important, not viewed as a nice add-on for those who can or get pressure from parents (most privileged areas).	3/11/2020 1:14 PM

**Q13 Outcome VIII: School-, district-, and state-level decision-makers understand, support, and invest in STEM. Select the two most important strategies for Outcome VIII over the next five years. If you do not see one of your top two strategies listed, please select "Other" and write the strategy in the comment box.**

Answered: 79 Skipped: 15



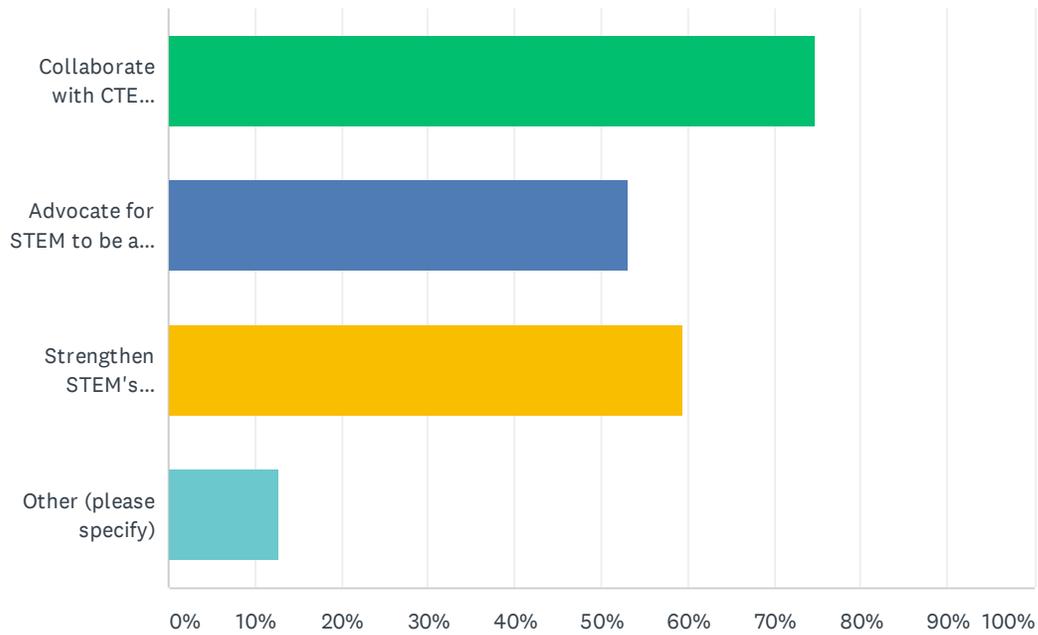
ANSWER CHOICES	RESPONSES	
Create a public-facing STEM data dashboard for the state	29.11%	23
Develop and implement a STEM communications campaign	43.04%	34
Meet with school, district, and state leaders about STEM and bring them to community STEM events	49.37%	39
Increase business and philanthropic investment in STEM	56.96%	45
Other (please specify)	21.52%	17
Total Respondents: 79		

## Revising Oregon's STEM Education Plan

#	OTHER (PLEASE SPECIFY)	DATE
1	Bring Industry leaders and school administrators together to develop and implement a STEM/CTE plan for their district	4/9/2020 9:24 AM
2	Beyond the communications plan, we need to create a very targeted legislative policy advocacy campaign. While STEM Hubs are well-positioned to support such efforts, most staff do not have the requisite expertise and in many cases the direct connections to legislators to do this work well. Therefore, training and support will be needed, and within each region, and teams formed that provide the skills and personal connections to be successful. Again, this is much more than a campaign, which is also needed to build awareness, understanding and support for STEM with parents, families, and other community members.	4/7/2020 11:26 AM
3	Build upon existing communication networks to promote STEM understanding on a wider basis, including PK-12 and community (i.e. existing CTE networks). Not all STEM is CTE, but all CTE is STEM	3/31/2020 11:33 AM
4	Goal 4 states: "Develop a sustainable funding and policy environment for STEM and CTE that provides reliable, seamless, and sufficient support across biennia" yet the options listed do not address STEM/CTE together.	3/30/2020 2:29 PM
5	Demonstrate commitment to STEM by committing funds to hubs for periods longer than 2 years	3/30/2020 2:28 PM
6	I would include legislators in the definition of state leaders above. I suggest amending the third bullet to say: Raise awareness, understanding, and support of school, district, and state leaders and policymakers about STEM and engage them in community STEM activities and events.	3/24/2020 2:32 PM
7	ETIC made a clear investment in increasing the number of Engineering Graduates over the last 25 years. OSU and PSU have big engineering buildings. They have endowed professors. We need that same investment in CTE educator development. We need more time for studnets to apply STEM and we need that in applied contexts. We need teacher training and preparation to have the teachers who will increase student time and experiences. We need a bigger STEM impact and CTE is the place to get it.	3/24/2020 7:41 AM
8	Understanding and support for STEM aren't quantifiable. Investment certainly is though, and that's the outcome that really changes what teachers and students do.	3/23/2020 9:46 AM
9	Allow more flexible use of Federal Funds for STEM programming	3/19/2020 9:09 AM
10	If I can check all of these I would. With a public-facing data dashboard it should tie back to achievable and measurable goals and tie to how preparing these students aids in the economic vitality of our communities.	3/18/2020 2:01 PM
11	Show direct connections between STEM and CTE and how these areas should be working together, not separately.	3/18/2020 11:59 AM
12	Any activity that gets local town folks excited about their schools will likely improve a sense on community and will likely improve graduation rates	3/17/2020 3:04 PM
13	Including businesses, parents. Some of this is already happening or has happened but there is no sustained strategic long term planning (5-10 years) for any of the efforts. All is on a two year cycle.	3/17/2020 1:41 PM
14	Build STEM awareness and momentum with OEA, Oregon's PTA organization, and families.	3/17/2020 12:49 PM
15	Work with K-12 and post secondary leaders to develop educational pathways that are meaningful and seamless as possible for students. The easier the path is for students, the more viable the path seems as an option to a good career, the more will take the path!	3/12/2020 4:54 PM
16	Require districts to demonstrate how they're investing in STEM teaching and learning	3/12/2020 2:13 PM
17	Develop longer-term, sustainable funding plan for STEM hubs (and potentially other efforts). This is needed for continuity of quality staff and programs.	3/11/2020 1:17 PM

**Q14 Outcome IX: STEM-specific initiatives, policy, and funding are aligned and coordinated with related efforts. Select the two most important strategies for Outcome IX over the next five years. If you do not see one of your top two strategies listed, please select "Other" and write the strategy in the comment box.**

Answered: 79 Skipped: 15



ANSWER CHOICES	RESPONSES	
Collaborate with CTE leaders, early learning hubs, regional educator networks, workforce development boards, and others to propose, fund, and implement local and regional initiatives	74.68%	59
Advocate for STEM to be a required or incentivized activity in current and future P-20 funding streams	53.16%	42
Strengthen STEM's inclusion in Oregon's federally required Every Student Succeeds Act state plan	59.49%	47
Other (please specify)	12.66%	10
Total Respondents: 79		

## Revising Oregon's STEM Education Plan

#	OTHER (PLEASE SPECIFY)	DATE
1	There is also an educational opportunity here that would need to occur in conjunction with the "Advocate" choice above. That requires support for gathering data, creating compelling stories, etc. and otherwise make the case for what STEM is and why it is important. Advocacy work, doe well, will need to incorporate the first bullet on collaborating with a wide range of stakeholders around a shared vision. However, not all of those stakeholders have the same vision. Another educational opportunity that targets breaking down historical "territories" and competitiveness.	4/7/2020 11:26 AM
2	Advocate that STEM and CTE is a requirement of each student's educational career, as well as a high school graduation requirement	3/31/2020 11:33 AM
3	I don't believe any of these options will have lasting sustainable results unless they keep STEM and CTE in the picture together. Sustainability will happen when we all work together, supporting one another.	3/30/2020 2:29 PM
4	Teacher Training in applied programs. Get more student time into applied STEM by taking advantage of where it is embedded in CTE. Get more students on Robotics teams, Computer Programming Contests, Science Fairs, Invention Projects, etc. Strengthen the applied elective programs and give students opportunities to shine in front of their peers and other adults. Follow the highly successful sports model. Move outside of just doing more science and math classes. Those are important, but by themselves they have not solved the problem.	3/24/2020 7:41 AM
5	These strategies make it sound like STEM is the king of the strategies - but the research is clear that CTE is actually the strategy that opens doors more equitably. When people invest in STEM, they invest primarily in pathways that require a college going outcome. This isn't good for increasing equitable outcomes. CTE opens investment in college going, training, apprenticeship, and military outcomes. STEM can do it too, but just about all we hear about is computer science and engineering (and the proposed strategies in some of the questions on this very survey reflect that).	3/23/2020 9:46 AM
6	Work with legislature so that the STEM Hubs physically align with CTE and workforce regions. That they are not each different or overlap with partnerships. Look at rural coverage and Portland metro coverage to make sure all are able to be supportive of district work. Currently both are spread far and wide and either it's too big of an area to cover or too many districts.	3/18/2020 11:59 AM
7	Find good visible STEM projects that local businesses can be asked to fund. Most want to help, but are too busy trying to keep their businesses running to dig in themselves. Develop lists of 'packages' that the schools could offer to local businesses to sponsor.	3/17/2020 3:04 PM
8	I mentioned previously that CTE educators have been quietly working on a lot of the strategies already in the past. Nobody paid attention to it. I think advocating on how early learning, K-5 and Gr6-8 education is done and how teachers should be trained in teacher programs should be looked at. Yes STE(A)M should absolutely be part of it. Like it used to be.	3/17/2020 1:41 PM
9	We need to reform education to measure progress based on skills, interests, pathways within a context of enriched learning...this included a diversity of definitions for success. And with this, to increase the application, context, community connections for learning, making a difference, humanitarian engineering, solving significant issues and addressing concerns...this is the youth develop school should provide!	3/13/2020 2:32 PM
10	NA	3/12/2020 10:26 AM

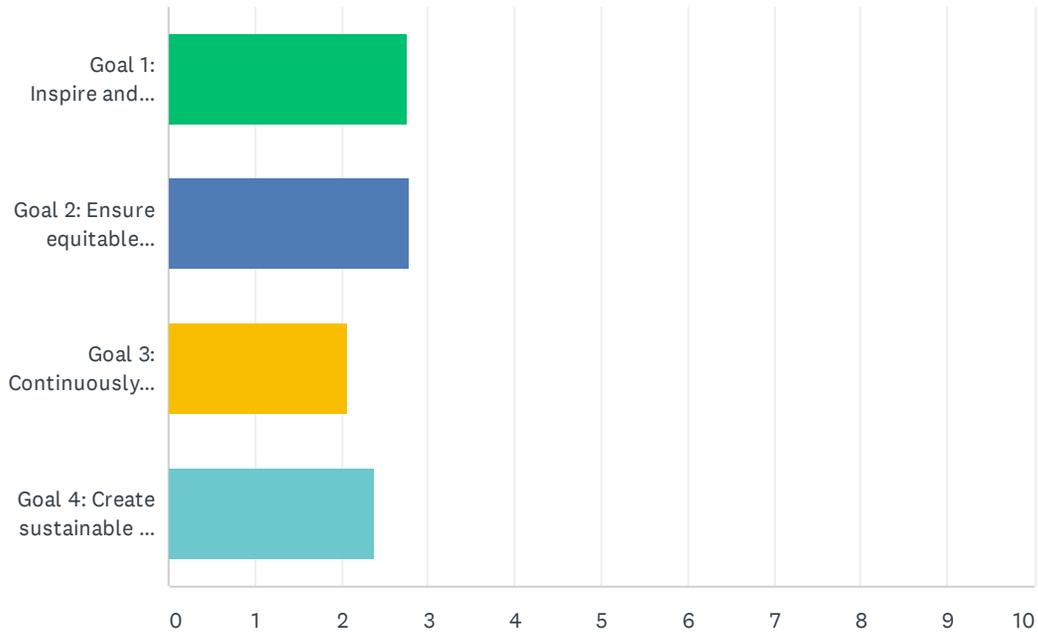
## Q15 Do you have any additional input on Goal 4's proposed outcomes and strategies?

Answered: 17 Skipped: 77

#	RESPONSES	DATE
1	Goal 4 really does require business/industry, workforce development boards, and others to step to the plate to not only advocate for better policies and better funding but to also be willing to support (i.e., pay taxes) developing more funding. ODE and the Governor's office also need to step to the plate to develop targeted policies to support STEM education at all levels and those organizations, like STEM Hubs, well positioned to create systems level change.	4/7/2020 11:26 AM
2	Participation in a CTE/STEM program of study should be a requirement for high school graduation	4/1/2020 12:41 PM
3	no	3/31/2020 11:33 AM
4	No	3/30/2020 2:47 PM
5	Even though STEM is big picture... Early Ed - Post-Secondary and into career, CTE is a part of that picture. STEM is in every CTE pathway even though not every STEM pathway has an official CTE pathway.	3/30/2020 2:29 PM
6	Align all initiatives (REN, etc) with STEM hubs.	3/30/2020 2:28 PM
7	Not sure what a " public-facing STEM data dashboard" is?	3/27/2020 5:06 PM
8	I want to repeat that STEM Investment Council needs half of it's members to have strong CTE and applied experience backgrounds with things like FFA, 4-H, County Fairs, FBLA, DECA, VICA, Robotics Contests, Programming Contests, Automotive Contests, Invention Showcases, and other student engagement examples in applied STEM.	3/24/2020 7:41 AM
9	The toss in of CTE here is a bit odd. I think there's a lot of confusion about what the STEM hubs actually do or produce. There's not a text box on the next page. In the five most important strategies, the person who wrote this survey left off the 'diversify the teaching force' strategy... That's a pretty big 'oops'.	3/23/2020 9:46 AM
10	Include underrepresented students and parents in the work, and pay them for their time and knowledge.	3/23/2020 9:23 AM
11	No	3/19/2020 12:26 PM
12	Seamless partnerships between K-12 administrators, colleges, and STEM Hubs is crucial. STEM Hubs can be the link to industry partnerships which aids in curriculum development for industry-ready students.	3/18/2020 2:01 PM
13	The STEM Investment Council should accurately reflect the community it endeavors to serve. That is, educators, administrators, educator preparation faculty, etc., need to be represented.	3/17/2020 12:49 PM
14	No	3/16/2020 4:36 PM
15	Having regional leaders/hubs implement initiatives is excellent, along with having SSA funds support these initiatives-- it would be quite the match for effectivity.	3/16/2020 8:39 AM
16	It is short sighted to see STEM only in the very limited terms of a technology economic driver...Science is for all learners and is a process not a content. Technology is just a fancy name for tool, art is a tool, writing is a tool, and we need to relearn that history is just as important to innovative as is coding! If we learned nothing from Steve Jobs, we should of learned that it all matters, beauty, form and function matter. Do this well and you'll do something significant...or not.	3/13/2020 2:32 PM
17	The extent to which integrated, equitable STEM teaching and learning is tied to district funding will determine district's STEM implementation progress	3/12/2020 2:13 PM

## Q16 Please rank the following goals from most (1) to least (4) important

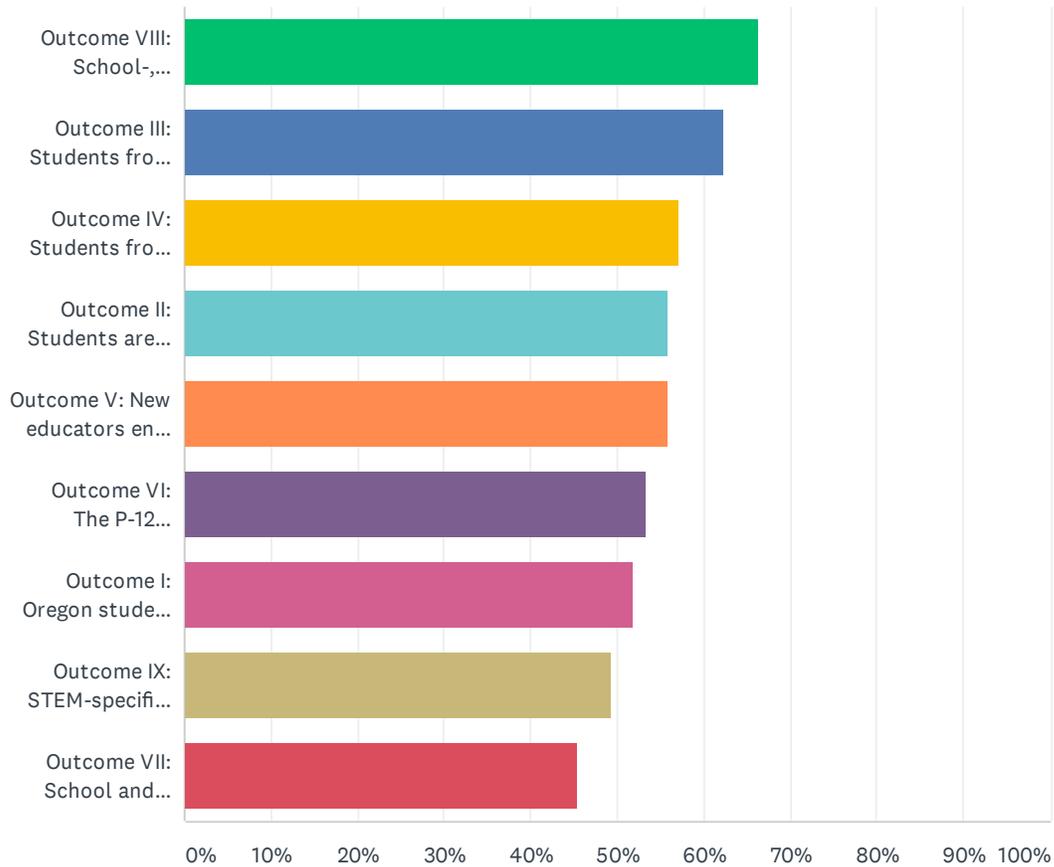
Answered: 75 Skipped: 19



	1	2	3	4	TOTAL	SCORE
Goal 1: Inspire and empower our students to develop the knowledge, skills, and mindsets necessary to thrive in a rapidly changing, technology rich, global society.	26.67% 20	38.67% 29	18.67% 14	16.00% 12	75	2.76
Goal 2: Ensure equitable opportunities and access for every student to become a part of an inclusive innovation economy.	32.00% 24	28.00% 21	26.67% 20	13.33% 10	75	2.79
Goal 3: Continuously improve the effectiveness, support, and the number of formal and informal P-20 STEM educators.	17.33% 13	10.67% 8	33.33% 25	38.67% 29	75	2.07
Goal 4: Create sustainable and supportive conditions to achieve STEM outcomes aligned to Oregon's economic, education, and community goals.	24.00% 18	22.67% 17	21.33% 16	32.00% 24	75	2.39

## Q17 Select the five most important outcomes over the next five years.

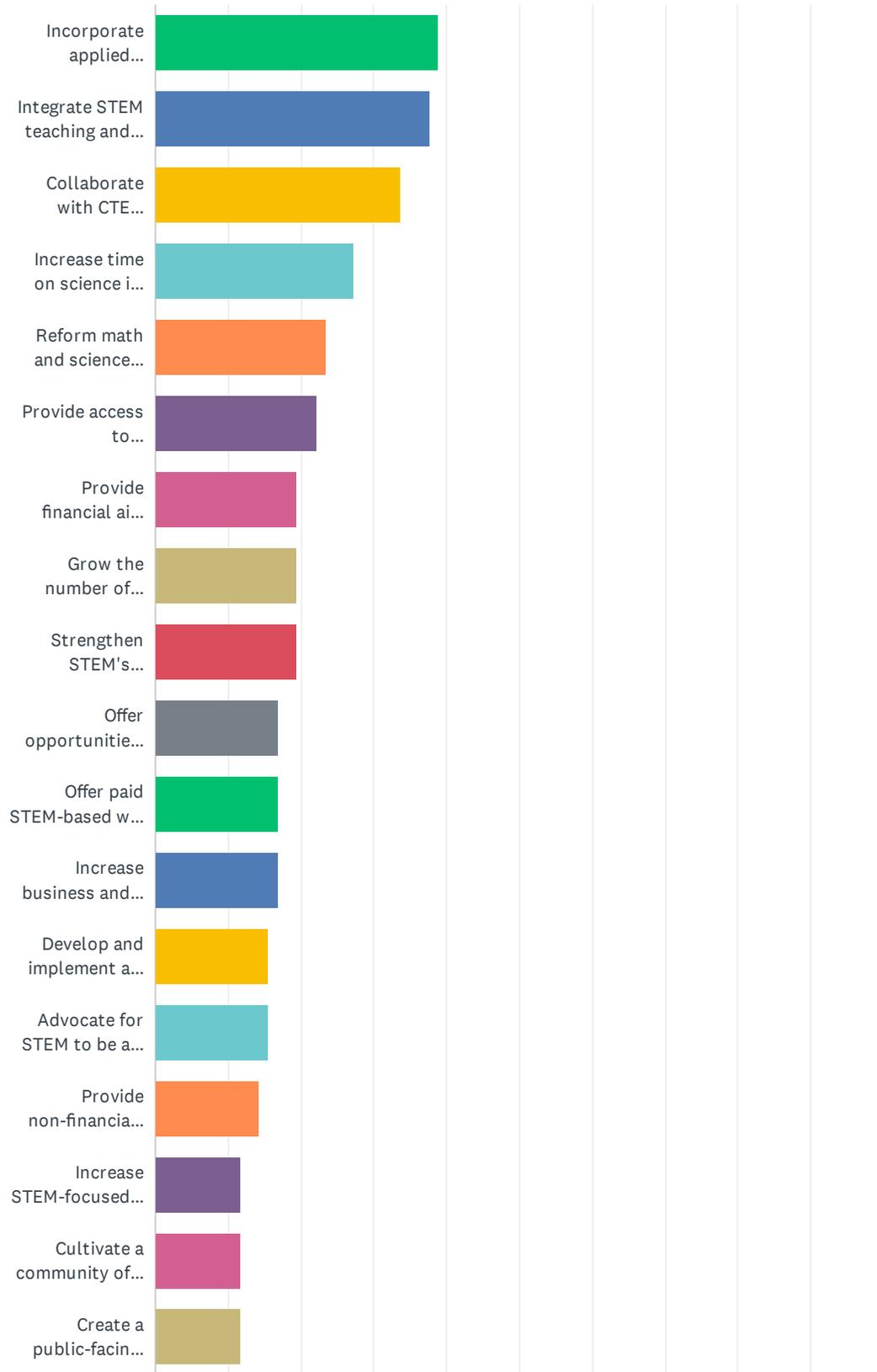
Answered: 77 Skipped: 17



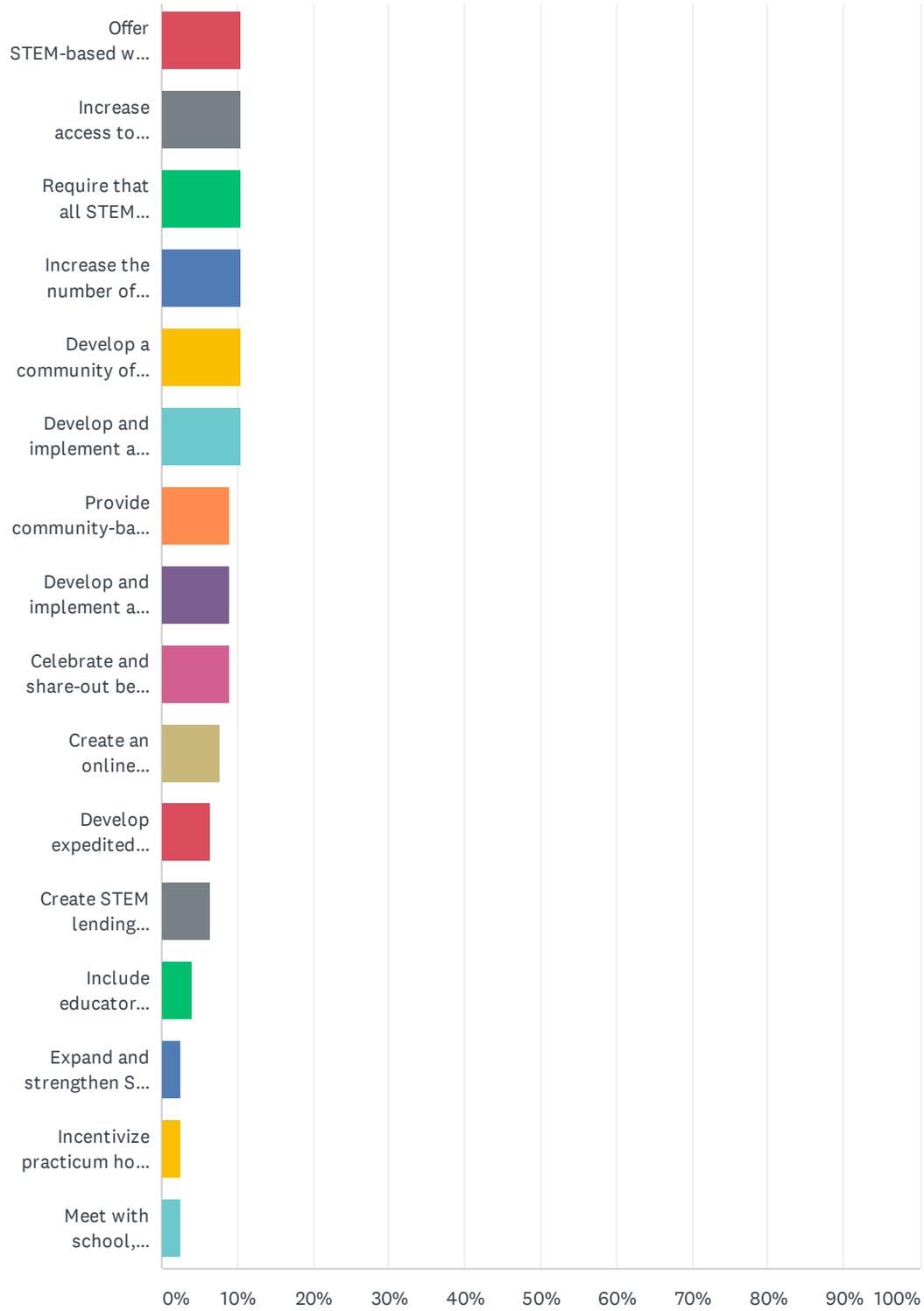
ANSWER CHOICES	RESPONSES	
Outcome VIII: School-, district-, and state-level decision-makers understand, support, and invest in STEM.	66.23%	51
Outcome III: Students from underserved/underrepresented communities see futures in STEM.	62.34%	48
Outcome IV: Students from underserved/underrepresented communities pursue and succeed in postsecondary STEM education and training, and/or STEM careers.	57.14%	44
Outcome II: Students are prepared to enter a STEM postsecondary education and training pathway or a STEM career.	55.84%	43
Outcome V: New educators enter the teaching workforce with a deep understanding of STEM teaching and learning principles, and STEM content knowledge.	55.84%	43
Outcome VI: The P-12 educator workforce has access to regular, STEM professional learning opportunities and resources.	53.25%	41
Outcome I: Oregon students are interested in STEM and develop a STEM identity.	51.95%	40
Outcome IX: STEM-specific initiatives, policy, and funding are aligned and coordinated with related efforts.	49.35%	38
Outcome VII: School and district leaders adopt STEM teaching and learning principles school- and district-wide.	45.45%	35
Total Respondents: 77		

# Q18 Please select the five most important strategies over the next five years.

Answered: 77 Skipped: 17



# Revising Oregon's STEM Education Plan



## Revising Oregon's STEM Education Plan

ANSWER CHOICES	RESPONSES	
Incorporate applied learning, project-based learning, and other engaging STEM-based practices into math and science curricula	38.96%	30
Integrate STEM teaching and learning principles across K-12 curricula	37.66%	29
Collaborate with CTE leaders, early learning hubs, regional educator networks, local workforce development boards, and others to propose, fund, and implement local and regional initiatives	33.77%	26
Increase time on science in elementary school	27.27%	21
Reform math and science course content, sequencing, and tracking	23.38%	18
Provide access to out-of-school STEM learning opportunities	22.08%	17
Provide financial aid for postsecondary students from underserved/underrepresented communities pursuing STEM postsecondary education and training pathways	19.48%	15
Grow the number of STEM-based professional development sessions and communities of practice	19.48%	15
Strengthen STEM's inclusion in Oregon's federally required Every Student Succeeds Act state plan	19.48%	15
Offer opportunities for P-12 students to interact with STEM professionals	16.88%	13
Offer paid STEM-based work experiences and research-based learning opportunities for secondary and postsecondary students from underserved/underrepresented communities	16.88%	13
Increase business and philanthropic investment in STEM	16.88%	13
Develop and implement a statewide plan to provide all students with digital literacy and computer science education	15.58%	12
Advocate for STEM to be a required or incentivized activity under current and future P-20 funding streams	15.58%	12
Provide non-financial supports, such as counseling and mentoring, for postsecondary students from underserved/underrepresented communities intending to pursue STEM education and careers	14.29%	11
Increase STEM-focused tracks in educator preparation programs	11.69%	9
Cultivate a community of STEM teacher leaders	11.69%	9
Create a public-facing STEM data dashboard for the state	11.69%	9
Offer STEM-based work experiences for high school students	10.39%	8
Increase access to college-level STEM courses and STEM-related CTE programs of study in high school	10.39%	8
Require that all STEM funding go to activities that serve a significant number of students from underserved/underrepresented communities	10.39%	8
Increase the number of school and district administrators receiving high-quality STEM professional development	10.39%	8
Develop a community of STEM administrator leaders	10.39%	8
Develop and implement a STEM communications campaign	10.39%	8
Provide community-based resources, such as community STEM events, maker spaces, and take-home STEM kits	9.09%	7
Develop and implement a school-wide STEM transformation process	9.09%	7
Celebrate and share-out best practices and success stories	9.09%	7
Create an online repository of STEM instructional resources	7.79%	6
Develop expedited pathways for STEM professionals to become educators	6.49%	5

## Revising Oregon's STEM Education Plan

Create STEM lending libraries for educators	6.49%	5
Include educator preparation faculty in STEM educator communities of practice	3.90%	3
Expand and strengthen STEM alumni and professional networks for students of color and women	2.60%	2
Incentivize practicum hours to be earned in STEM classrooms	2.60%	2
Meet with school, district, and state leaders about STEM and bring them to community STEM events	2.60%	2
Total Respondents: 77		