STEM ADVISORY COUNCIL MEETING
April 28, 2014
10:05 am –12:57 pm
MINUTES

The meeting was video conferenced between the following locations:

Nevada Department of Education
Northern Nevada Office
700 E. Fifth Street,
Board Room
Carson City, NV 89701

Nevada Commission on Economic Development Southern Nevada
555 E. Washington Avenue
Suite 5400
Las Vegas, NV 89101

Present – Carson City
Nancy Martineau – Support Staff

Present – Las Vegas
David Brancamp – Co-Chair No
Mary Pike – Co-Chair South
Dr. Nancy Brune
Dr. Theresa Corry
Derek Fialkiewicz
Dr. Anne Grisham
Wes Harper
Richard Knoeppel
Judy Kraus
Michael Mohar
Katherine Neddenriep
Sharon Pearson
Dennis Perea
Dr. Carl Reiber
Shelace Shoemaker
Frank Woodbeck

Excused Absence – Las Vegas
Missy Young

- ***(1)Call to Order/Roll Call: and Pledge of Allegiance (Co-Chair David Brancamp & Nancy Martineau):***
  The meeting was called to order by David Brancamp at 10:05 am. Nancy Martineau did Roll Call and verified that a quorum was met.

Frank Woodbeck is stepping down, and Dennis Perea will take his place on the Council.

The Pledge of Allegiance was led by David Brancamp. The Pledge of Allegiance was recited.

- ***(2) Public Comments***: David Brancamp stated that at this time the public can only go over items that are on the agenda, and they are limited to three minutes. He asked Tracy Gruber and Andre DeLeon to keep time up in the north and he would in the south. He reminded everyone that the yellow public comments cards need to completed and turned in before speaking and directed them where to find them in each conference room.

  There were no public comments at this time in Carson City or Las Vegas.

- ***(3) Adoption of Minutes and Approval of Agenda (Co-Chair Mary Pike):*** Mary Pike requested that everyone take a moment and look through the minutes from out February 14, 2014 meeting for any missed items that need to be corrected. It was pointed out that there needed to be some name spelling corrections for Crowther, Brune, Theresa, Corry, and Brancamp. So noted.

  Mary Pike requested a motion to approve the minutes. Theresa Corry made the first motion to adopt the minutes. Dr. Nancy Brune made the second motion. The council voted, and no one apposed. The minutes were formally adopted by the Council.

  Mary Pike requested a motion to approve the agenda. Katherine Neddenriep made the first motion. Dr. Carl Reiber made the second motion. The council voted, no one opposed, and the agenda was formally adopted by the Council.

  David Brancamp reminded the council when they speak or make a motion to please announce their name. Especially when we are in two locations and Nancy can't see who is speaking.

- ***(4) National STEM Background Information Presentation (Mark Muro, Senior Fellow and Policy Director, Metropolitan Policy Program at Brookings, and the Washington Co-Director at Mount West association with UNLV):***

  David Brancamp introduced Mark Muro and mentioned that he has met with Mary Pike and himself, and he has been involved with Nevada for a while.

  Mark Muro: He expressed great appreciation for having Brookings at our meeting, and introduced the colleagues who accompanied him: Jessica Lee and Scott Andes. Brookings is trying to help advance the cause of turning STEM education and workforce development into a much higher profile topic in the state. To do that, they embarked on significant convening research with forth writing effort. Their motivation is clearly economic.

Mark Muro's presentation was on Nevada's Hidden STEM Economy, and How to Expand it.

- Project:

In 2011 Brookings worked with SRI International to provide research that informed the creation of the state's first economic development plan. They conducted an in depth analysis of Nevada's economic structure at the request of the State Legislature and were asked to look at likely growth possibilities and concluded that it is imperative of Nevada to complement its traditional based tourism, gaming, and mining activity with a diversification strategy.

STEM workers will be crucial and all of the state's target industries have a significant STEM orientation. There are seven (7) targeted Industries:

1. Tourism, Gaming and Entertainment
2. Business Information Technology Ecosystem
3. Aerospace and Defense
4. Mining, Materials & Manufacturing
5. Clean Energy
6. Logistics and Operations
7. Health and Medical Services

They want to provide a new framing that combines Brookings' approach to STEM analysis with a look at the states' ability to meet the STEM workforce imperative. They want to suggest a way forward that follows up on Nevada's sector strategy, supports the work we are doing as a good central resource.

- Fresh analysis of the Nevada's STEM worker demand and supply tensions.
- Systematic review of challenges
- Possible action steps

Throughout the report it will employ an expansive new definition of STEM employment that will resonate all of the work that was in this hidden STEM economy report. It will be based on jobs' actual skill requirements, and inclusion of thousands of previously neglected blue-collar and technical jobs.

Timeline:

- Winter 2013-14 — Initial background work
- January 2014 — Initial listening sessions in Reno and Las Vegas
- February-May — Analytics and policy scan
- May – June — Report and recommendation development
- Summer — Recommendation sharing
- Fall — Report release

- Initial Trend Findings:

Rapid job growth characterizes Nevada's target industry sectors, which employ over half of the state's workforce. Contribution to Growth in jobs 2010 Q3 to 2014 Q1: Target industries 67%; and non-target industries 33%.

Industry job growth annual rate 2010-Q3 to 2014-Q1

- Target Industries = 2.5%
- Non-Target Industries = 1.4%

Industry Job Change, 2010-Q3 to 2014-Q1

- Target Industries = +52.508
- Non-Target Industries = +26.234

All but two of the target industries are STEM-intensive: Logistics and Operations, and Tourism, Gaming and Entertainment. A surprisingly significant proportion of Nevada jobs require STEM knowledge. STEM occupations tend to pay well and don't necessarily require a bachelor's degree. The average STEM job wage premium in Nevada (compared to non-STEM jobs) is + $24,000. Share of Nevada STEM jobs requiring less than a 4-year degree is 52%. However, in Nevada as elsewhere, STEM jobs take longer to fill than non-STEM jobs. STEM jobs in Nevada take 25-50% longer to fill, indicating that there are often challenges when filling these jobs. STEM jobs are significantly longer to fill in Nevada over the rest of the United States, especially in Reno. Numerically there are more STEM jobs that have been appreciated and that STEM jobs are more important to your state than has been recognized.

Hard-to-fill STEM occupations tend to be in high STEM categories. The ten hardest to fill occupations in Nevada, 2013 Q1:

- Healthcare practitioner and technical
- Management occupations
- Life, physical and social science occupations
- Education, training, and library occupations
- Architecture and engineering occupations
- Community and social services occupations
- Computer and mathematical science
- Sales and related occupations
- Farming, fishing, and forestry occupations
- Food preparation and servicing related

Hard-to-fill occupations by industry in Nevada:

- Aerospace and Defense
- Information Technology & Business Services

- Health and Medical Services
- Tourism, Gaming & Entertainment
- Manufacturing
- Logistics and Operations
- Energy
- Mining and Materials

The study showed what is behind these demand challenges is culture, habits, the states' history, households, is usually what matters. There is the fact that Nevada has done well without advanced education. There has been a sudden changed in the direction of employment in Nevada. After the prices are looked at and the job market, and labor markets need to adjust to changes that met with massive impact on trajectory of the State. We also need to look at Nevada's formal education training pipeline for STEM workers.

Nevada institutions of higher education (TMCC, CSN, UNLV, and UNR) do a middling job of preparing graduates for STEM jobs but struggle with graduation rates. There are alignment issues, and education issues to look at here. Nevada's K-12 education provides a weak base for STEM proficiency growth. Nevada's proficiency rates on National math exams in 4^{th} grade and 8^{th} grade are lower than the United States average. Nevada's pubic high school graduation rates for all students and low income students are also lower than the average United States rate.

- Strategy Development:

Critique #1: Vision Gap: The state lacks a widely shared, cohesive vision of the importance of STEM workers and training to its economic goals.

- Strong prioritization not evident.
- Limited coordination of STEM focused activity.
- STEM definition goals, and metrics absent.
- Communication of STEM vision remains lo-key.

Critique #2: The state's education and training system remains weakly aligned to the needs of the state's STEM economy.

- NSHE and other incentives for industry related STEM Ed could be stronger.
- Business, Ed-training system interaction remains inconsistent.

Critique #3: The state struggles to address a STEM proficiency crisis at both the state and regional levels.

- Poverty, language proficiency problems place drag on student success.
- Access to early education is inconsistent.

- Prioritization of STEM education still nascent.
- Teacher preparedness and STEM subject matter knowledge sub-optimal.
- Grad rates, remediation needs at crisis levels.

Nevada must make expanding the STEM economy a core priority. Set a Vision, Align Delivery, and Establish Proficiency.

- Discussion:

Question/Statement - Carl Reiber: At the high leadership their needs to be some emphasis and some vision. Speaking from the high education level I would suggest that on the faculty end there also needs to be more vision, more creativity, and more experimentation. He attended a statewide meeting for system institutions talking about the way forwarding critical STEM area. One of the individuals said "we created a perfect curriculum 1970's and it is equally good now." He asked if he had spoken to anyone, how he knows it still works, the response was our discipline say's that it is good. It is not just the high end folks, but those here today, and the Governor that have great vision and ideas. It has yet to incorporate anything into their thinking, anything beyond their own academic disciplines. We have to blow those people out of their in the box mind set to get things moving because they are the ones who control, and the ones who can take decades of inaction to move forward in just a few short years.

Answer - Mark Muro: We see this as one of the inherent difficulties of this agenda is diffusing STEM concepts and teaching through this hugely decentralize complicated system. Nevada is not that far behind on this topic. There are about five states that are distinguishing themselves on this topic. Nevada has the chance to move forward pretty rapidly and has less legacy rigidity built in since it is newer. Everywhere there is this question of diffusing this priority through these complicated systems. Getting down to line teachers and line administrators it is not going to happen immediately. The only way to begin to permeate the system is through very clear passion and powerful messages and a lot of work to thread that through. You are going to have to set incentives and priorities in order to get what want and punish what is not helpful.

Question - Dennis Perea: In your STATS you had some back orient, in your final report will you have sub associate more like certificate stuff or is it even aggregated now?

Answer - Mark Muro: I think in the near future we can get certificates

Question – Dennis Perea: Do you see that as a large part of those numbers?

.Answer – Mark Muro: I think it's important and some of the industries especially important and points to a way forward are being systematic and targeted developing.

Tracy Gruber: Requested when you speak to please state your name for the record.

Question - Dennis Perea: Towards the end you were talking about a grant for STEM initiatives. In your report are you going to elaborate what that may look like?

Answer - Mark Muro: Absolutely. This is architecture to get them to ask the type of questions like Carl Reiber brought up, like collective action issues. There is a pretty standard way to get at them using challenge grants to put some money on the table and have a solicitation for consortia to propose great projects that bring together the actors you want to deliver the kind of activity you want. A number of states have tried this in the economic development phase and workforce development phase. We stole elements of ideas like this of Washington State and reconfigured it for some challenges in Tennessee around the auto industry supply chain and broadened it from there. This is not a usual way to get what you need. You need some competition and a real incentive and funding for what you want. This is a good way to bring it together and strengthen the sector councils and could bring the community colleges and universities into play working closely with industry. It is one thing to say what you want to happen and hope that business and higher education will get together on it and deliver great programs. It is a little different when you have some money on the table. This is relatively cheap and could develop a lot of leverage. You could require matches from those in companies. We have found this has worked quite well.

Question – Frank Woodbeck: You mentioned five states that sold in terms of STEM education. How do those states compare to Nevada in diversification in their economy in STEM related industries?

Answer-Mark Muro: The states that are beginning to diversity are going further and thinking about this most intensely. Massachusetts strikes us as one of the leaders. They have flat to shrinking population growth and an incredibly tenement economy. North Caroline and Michigan are thinking about this. Ohio and Tennessee have very strong coverts that are a couple of years old. This is the human capital of dimension of a diversification strategy or an advanced industry strategy.

Comment & Question – Carl Reiber: I recently received several reports on the demographics for college going populations. The states that you just mentioned are on the down swing. They are going to have fewer students going to college. They are aggressively looking to turn that around. The only way to get them into college is to bring them in and align them with their STEM disciplines. The Governor has a state economic development plan, which has the major sectors that have been identified. Institutions have been asked to align their programs with that plan. At UNLV we are asked to align our graduates with their areas to give them a more defined education. Can you drill down a bit in terms of the state development plan and how it does align, and how it was developed, and whether it aligns for current jobs today or how it aligns for the next 10-15 years?

Answer – Mark Muro: The target industries were built no on where the state was but where it needed to go. It is very much momentum based. I showed a few job growth

numbers that does show the targets are where the growth is occurring. Two-thirds of growths are in the target industries, rather than the non-target industries. That seems to support the general direction of the dynamic strategy for appointing. We used data without momentum from pre=crash. That could be a flaw. We can see we are getting most of the job growth in the target industries. I think you have an important piece of directional information at hand. There probably should be an update of the strategy and the targets. We can look at what growth is, and in the report we will give this information. We need to use this to drive information and in collect to shaping our education workforce. This is the harder part. Part of this falls on business. The sectors have worked well and have been willing to share data. This is where challenge grants can be helpful.

Question – Carl Reiber: What is the harder question you brought up is taking the skills these industries need, and translating them to a curriculum whether it is K-12 or beyond and the necessary skills those workers will need.

Answer - Mark Muro: We are all exploring and some of these kinds of data often hint. There is no substitute for direct intelligence from the employers. We feel business has to step up with the willingness to supply proprietor data, job descriptions at a more specific level. We can't be left to intuit what is relevant at that fine grade level. There is plenty to do on both sides of that risk.

Comment – Michael Mohar: He helped NS-Tech develop the most recent program with UNLV with their program to assess STEM education and training needs for potential employees. He is more than happy to provide any information that you need. It is not always about getting people to go to college. The STEM education is as important in the trades as to get people to go to college to get two and four year degrees, and certificates. He wants to make sure we are not ignoring those people that go directly from high school into the workforce it is a critical need. This goes back to the specifics of the curricula that are required in the State of Nevada, and by the State Board of Education, and how that curricula is addressed and how middle schools and high schools across the state are implementing that.

Answer – Mark Muro: There is one major taka away from our work and it is exactly that in Brookings contribution in the last year has been to significantly democratize STEM in national discussions. Our big point is that half of these jobs in this state are sub-macrolorian. People in the IT industry seem to be the most demanding but you're not hearing much conversation from them about bachelors of Science or PHD Level engineering. They are most concerned about specific certificates and very fast technology industries. I think your point applies to both the technology side and the manufacturing side. It happened to be something that makes this all the more attainable and achievable for Nevada in the short term. You don't need to crank out a bunch of PHD's but you do need a good K-12 into those first classes in the community colleges, and really married up with what industry needs. We need to have a lot assessable to achieve and this would be very good for a lot of households and young people in this state who really need to find something to do that could give them a middle class life.

Question – Frank Woodbeck: He is always concerned when he sees on time graduation rates or graduation rates without definition. And when it comes to community colleges and certificate programs he thinks we should look at completers in some of these cases. What he thinks we will see in the IT industry and the manufacturing industry for example of certificates and stackable certificate certifications that allow someone to complete their education in terms of that particular job and career and continue in that career at a later time. It has nothing to do with a two year or four year graduation.

Answer – Mark Muro: We can read this as one standards of measure. We can work with you to consider what might be more meaningful. This is absolutely true.

Comment – Mary Pike: One of the big take away's regarding the K-12 pipeline is that we need to scale up. That is where the business and industry need to step up. It is not possible to scale up without funding. In Clark County there are class sizes of about 50 students, and they are probably high in Washoe County too. It is hard to do what you need to with that large of a class. Not only do we need funding for supplies, but to cut class sizes. A good example in Clark County is the Career and Technology Schools that have smaller class sizes limited to 25, and they have the funding. They have certificate programs that are leading into exactly what we need. The model is there but we can't move forward without funding.

Answer – Mark Muro: He agrees, and concurs that there are a lot of good models in place. This is not just about seeding new experiments and an emphasis in scaling up as we are already doing is the right focus. We have to consider public investment, but we have to look at private sector and fill in philanthropy. The great differences between the two regions merit that, and you get better buy in at the local level. They are looking at some models for unusual consortia and funding experiments that can work for the public school system and bring new energy and resources.

Comment – Katherine Neddenriep: Commenting on Michael Mohar's comments and the definition of what STEM is and what falls under that definition. She had a meeting with the President of Great Basin College, and was told that a lot of their classes are not part of a baccalaureate program, and are not considered STEM even though they are technology and directly tied to mining and manufacturing. They don't get counted in those statistics because they are not at that level. As Michael Mohar pointed out, that is not where all the demand is right now.

Looking through the Brookings report a lot of the findings are Reno and Las Vegas, but there is the non-metro Nevada. Great Basin College and their service area, with the programs they are offering and the industry partnerships, and what they have been able to develop. There is some opportunity to learn from how they have structured themselves, and how they have built their relationships with industry. They have three or four key contributors but if you transferred that model to Clark County or Washoe County, you have a much broader pool of people to pull from that you are not necessarily asking one

company for a million dollars, you can ask ten for a hundred thousand. There is some opportunity here, and that there is some information missing here that being very successfully implemented in the Northeastern part of the state that could be imitated.

Answer – Mark Muro: They intend to celebrate a lot of the good best practices on the ground and what they do. They will be sure to take a look. On the first point Katherine made on the problem underlining definitions, not only shows the need for definitions, it shows that conventional definitions are not helping. This is exactly the problem that they are trying to get away from in their analysis by throwing attention on the self-baccalaureate. Part of STEM definitions have revolved around degrees. You wind up in this National Science Foundation grant to an education world, whereas, half of the jobs and most relevant jobs for our economy are sub-baccalaureate or certificate.

Comment – Carl Reiber: When you define sub-baccalaureate you need to be careful because you are focusing on degree or certificate. In many instances it is integrating STEM material into existing degrees that may not be in a traditional area. There are areas where students are coming out very well prepared traditionally but their fields have grown beyond that and they need the STEM education elements as minor, or the courses need to be tweaked to include a more modern version of what is expected by the workforce.

Answer – Mark Muro: They are not saying that they should reject, but more that we do need plenty STEM degrees at this high level issue that manages the state. They are simply trying to underscore that there will be a lot important STEM instruction that will be highly relevant to the job market that may not be reflected in conventional business.

Comment – Caro Rieiber: I am suggesting both.

Answer – Mark Muro: Absolutely. What we have done with the National analysis is we took the degree based STEM world and added it to this other portion and it nearly doubled in size.

Comment – Ann Grisham: When you are looking at models for K-12 schools, I suggest you look beyond schools that call themselves STEM. There are some great programs that call themselves STEM, but within the magnet world, and beyond the magnet world, at least for public education. There are a number of schools that are teaching some of those skill sets that we need in STEM that we need also to be replicated looking at the whole. You mentioned Brakken Fantastic School. There are a number of schools that are out there that are not hailed, but are certainly preparing their students.

Answer – Mark Muro: Very good. The importance of definition is important, and something your process should think about. You have a number of people in the state that deeply into that discussion. A definition of STEM should be an inclusive one, and should make clear that there are multiple ways of STEM relevant education, and some may not be called STEM. Some may not be reflected in specific degrees but is an approach to teaching, and an approach to content.

David Brancamp: Thanks Mark Muro and welcomed him to stay for the remainder of the meeting.

- ***(5) Review Senate Bill 345 and Council Sub-committee Roles (Co-Chairs David Brancamp and Mary Pike):***

Mary Pike: Noted that in Senate Bill 345 we area tasked to do Seven (7) things and we have divided into sub-committees. Dave will go into this further. We need to bring things into a sub-committee meeting that is an open meeting to be able to make some decisions or bring things to the entire council. We will talk a little bit more about that. We have until June of 2016, which is two years. We don't want to proceed in such a fast manor that we overlook things. We want to keep those two things in balance.

For the council sub-committees we combined:

Sub-Committee A & D is from Senate Bill 345 to develop a strategic plan for the development of educational resources, and conduct a survey of educational progress and propose programs. The members are: Sub-Committee Chari Dr. Nancy Brune, Dr. Theresa Corry, Wes Harper, Mary Pike, Missy Young, and Andre DeLeon as the Nevada Department of Education State Representative. Nancy Brune stated that the committee has not come up with a name other that Sub-Committee A & D. We may address this at a later meeting.

Sub-Committee B & C is from Senate Bill 345 to develop a plan for identifying and awarding recognition to pupils who demonstrate exemplary achievement and develop a plan for identifying and awarding recognition to not more than 15 schools that demonstrate exemplary performance. The members are: Dr. Richard Knoeppel, Judy Kraus, Sub-Committee Chari Sharon Pearson, Shelace Shoemaker, Frank Woodbeck (being replace by Dennis Perea), Derek Fialkiewicz, and Mike Pacheco as the Nevada Department of Education State Representative. Sharon Pearson stated they have not come up with a name other than B & C.

Sub-Committee E & F is from Senate Bill 345 to apply for grants on behalf of the state and identify the non-profit organizations and to assist in the implantation of the plan to development pursuant to A, B, and C. Their plan is to come up with an (RFI) Request for Information that non-profit then their committee will vote on the non-profit. The members are: Co-chair David Brancamp, Dr. Anne Grisham, Sub-Committee Chair Michael Mohar, Katherine Neddenriep, Dr. Carl Reiber, and Tracy Gruber as the Nevada Department of Education State Representative. Michael Mohar stated that they named themselves The Grants Sub-Committee.

As a review, keep in mind our focus on our task to Senate Bill 345 to submit a report to the Governor on our work and our recommendations

Mary Pike: We can do some voting today however we do have the right wait until our July meeting.

Michael Mohar: It is not clear as to what the legislation has written. The Senate Bill talks about that the Grants Committee will be the ones identifying the Non-Profit Corporation to help apply for grants. This is not explicitly stated in legislation. It states "to *assist in the implementation of the plans developed pursuant to paragraphs A, B, and C*." The only way you would develop plans pursuant to paragraphs A, B, and C is through grants. Are we to assume that the purpose of Non-Profit is to help write grants and provide other support in those areas?

David Brancamp: We can assume that right now we are waiting on legal. We have taken it to the Attorney General's office to verify that point. That would not be their only responsibility; it could also be what we have heard this morning as a way to get industry to help us to move some of our other charges forth. The hard part is the RFI cannot go in front of the fiscal department in our section because there is no money attached, which makes this a very interesting process. Mike you will be taking through some of the options:

Michael Mohar: The options I have were under the assumption that the Non-Profit that was chosen would be to assist in grant writing, other administrative work, and implementation of A, B and C.

David Brancamp: Correct. Other comments?

- ***(6) STEM Advisory Council Sub-committee Reports (Dr. Nancy Brune, Sharon Pearson, and Michael Mohar):***

David Brancamp: Before we get started on the sub-committee reports on where they stand, I think it is really important to know. We will set the next meeting date for July now that we know both meeting rooms are available. Now that is in play we also need to know that in August the State Superintendent would need to know budget sets. It helps to go into session. It is also in early July. So this is something to keep in mind. We have a member of our school board behinds us. They need in early July between those two entities they need to come up with ideas for the Governor about fiscal. Even though our report is not due until January, if we have some preliminary thoughts it is wise to get them on the table. They can always bring other bills forth during session next year. It is wise that we have some thoughts in play. So don't feel forced that we have to make decisions today. We don't have to vote yes on those today, your sub-committees may want to come back with ideas from what we talked about today, and request time to discuss that. So just know that is on the table before you move it forth. You can ask Mary or Dave to call for a motion. As your chairs of your sub-committees, if you feel your committee would like time to think, we do have some time in that process to move that.

Think about what Mark has shared with us, some of his information will be useful as we develop that strategic plan and move forth. We will be using some of that piece as well.

Break – 11:20 am to 11:30 am

Michael Mohar, Grants Sub-Committee Chair: Not an easy issue. Turns out it is hard to procure something you are not going to pay for , or something you are not going to be responsible for, and something that your are going to expect other people to donate or receive grant money for. It took a while to figure out a mechanism we could put in place.

The best they could find out was that fiscal sponsorship is a mechanism more by a project which would be us, and, needs to get funding from grants or donations. You would enter into a relationship with a Non-Profit, a 501C3 Organization. Generally it is not a contractual relationship. This is another wrench that gets thrown in the process. This is all legal within the Internal Revenue Service (IRS) regulations for 501C3 as long as you don't use it simply as a pass through. A pass through would be if the State of Nevada is going to find a Non-Profit give funds to that is going to give the funds back to the State of Nevada. Or if a donor, a corporation is going to donate funds to the 501C3, and then have that money granted back to them to be able to do work. This is the only restriction; you can't use the 501C3 to just pass through back to yourself.

It is really important through those types of situations that you find an appropriately aligned Non-Profit. What the IRS rules allows for the fiscal sponsor to charge to charge administrative and other fees on grant money they apply for, or donations that they receive, as long as they are explicit within the grant application, or when the solicit donations. It is perfectly legal for them to do. This is typically how the relationship is entered into. The conundrum for us is because we are a State Organization within the Nevada Department of Education, how do we go forward to solicit and acquire a Non-Profit carryout this action for us within the standards laws of procurement? Procurements are not meant to acquire services for no fee, at no cost, at no risk. Generally the way that a fiscal sponsor would be established is there are national registers for these organizations that are willing to do this kind of thing. Typically as a project we would go look at that data base and pick the organizations that most fit to what our requirements are and write them a target for solicitation. Then you put together a memorandum of agreement that says we are going to work together, that fiscal sponsors are going to raise funds and help support us. It has to be within that Non-Profit's charter to do what we are asking them to do. It is pretty broad on what types of services they can provide. Typically grant writing is one of the bigger ones. Also providing administrative support, and providing advisory support. All the things we are specifically looking for are things that are allowed within this structure.

The question is how do we proceed? Can we put out a solicitation for a zero cost reimbursement, and zero fee contract solicitation? What are the implications of putting out such procurement? This is a point where they could not proceed any further because of a whole lot of legal questions. We need to have the legal folks involved. Michael put together a draft solicitation. In the solicitation we outlined what we think the applicants

qualifications should be. We need to get a general consensus that these general qualifications are what we are looking for in an applicant.

The general qualifications we would be looking for are:

- Nevada 501C3
- Been in business in Nevada at least two years,
- Has presence in both Northern and Southern Nevada
- Has outreach into the Rural Communities
- need Has staff with relevant experience to what we need

What to ask for in terms of the evaluation and business description:

- Prior performance
- STEM Education experience
- Resume's on key personnel
- Have them write a draft fiscal sponsor agreement, and submit as part of their solicitation.

Michael wrote up a draft solicitation and in trying to write it he said it was so different than any other kind of procurement he has ever done. He is not sure how to proceed or if we are in a position to make any decisions until they get read from the legal and procurement people. The problem on the procurement side is that if we do this as a procurement that in principle it could be protested as any other procurement can be protested. What criteria do you have for a protest based on it's a no cost, and there is no financial relationship? In that case if we can move forward on this as a Memorandum of Understanding (MOU) or Memorandum of Agreement (MOA) with a fiscal sponsor. What would be next then would be to put out a Request for Information (RFI) throughout the State of Nevada saying what Non-Profits meet these requirements and qualifications. Then decide on one, or in principal you could do multiple awards. It does not have to be a single organization. We will have to decide on which of those who responded we would want to enter into a Memorandum of Understanding with. This is the most logical way to move forward. But, unfortunately this is very complicated. He is not sure what kind of decisions they can make and is open to any discussion or recommendations.

David Brancamp: A couple of things come to mind. We know Carrie Parker will be our legal advice. The qualifications you posted we will send to members and they can e-mail Michael with their suggestions copying Mary Pike and Myself. No decisions will be made, it will give the committee I sit with your feedback that we can take to fully list it through. Carrie is unavailable at this time. Tracy Gruber did send the documents to the Attorney General's Office so they can weigh in and figure how that is going to play out as well as have conversations with our Superintendent and our Fiscal Department as to what they are going to do. Those are immediate thoughts, other members do you have comments?

Dennis Perea: Business and industry and the Department of Education and Department of Employment, Training, and Rehabilitation (DETR) to some degree have the ability to establish Non-Profits for the sole purpose of delivering certain programs. DETR just recently did that, and if you can actually establish a foundation through the Department of Education then you can use the legislation that it is created under to have legislative intent for a sole source. That is practically what they did. DETR established a Non-Profit and used the fact that part of the project was funded through the Department of Education as legislative intent. It is possible.

David Brancamp: It is nice to know that we are possibly on the right tract; we just have to get through some hoops as we're going through it.

Michael Mohar: How fast can one put together a Non-Profit? It takes about 6 to 8 months to put together, then that is 6 to 8 months we won't be able to execute. In that sense it may be easier to go with one of the sponsored relationships. Very interesting idea.

Dennis Perea: Establishing a Non-Profit was fairly quick. What holds up the process is the IRS filing for the tax exempt status. They asked us to file expedited service after 90 days. It can take 3 to 4 months to get the tax exempt status but the Non-Profit can be established is it has a business license contracted prior to the tax free status.

David Brancamp: Not as daunting as maybe. We will explore those ideas, and Carrie Parker should get back to the Grants Committee rather efficiently. They are working on multiple departments, and she said she could be just the Department of Education's advocate on that side because that is her role. I believe Carrie is out this week.

Tracy Gruber: Yes, she is gone until next Monday.

David Brancamp: We will follow up when she returns. We will send out the PowerPoint to the members and then you can give us feedback on the qualifications to at least keep that part moving.

Nancy Martineau: I was told we can't distribute and materials or PowerPoints that were not given to us prior to the meeting.

David Brancamp: We will wait until July then.

Nancy Martineau: We can put them in the minutes.

Tracy Gruber: Yes, Nancy Martineau and I talked about this and we will make sure to put an in-depth description in the minutes of each slide for all those who presented so you will have all this information within the minutes when you read them. If that is acceptable?

David Brancamp: About a 30 day it would be what it takes. All we really need are the qualifications.

Michael Mohar: The qualifications were submitted to all the sub-committee members in that draft solicitation. Those two slides were directly out of that solicitation. At least the sub-committee members have that. Would I be able to push that out to everybody?

Nancy Martineau: Yes we can submit a draft.

Michael Mohar: I will do that then.

David Brancamp: Did that work for our group? Thank you member Mohar.

Sharon Pearson, Sub-Committee Chair B & C: Our committee has been working on collecting documents that other states have been using to see what other states are doing and the process. What they are following to do what we are trying to do. We found quite a few documents that identify STEM schools and their qualifications. We haven't found as much for awards, but at least we have something to look at and we are finding some rubrics as well. Right now we are looking over what is out there and trying to collect information. All of us are starting to go through these and find the most important pieces that are repeated. We need it to be for Nevada but we also need it to reach out and be similar to other states as well, it can't be just a standalone Nevada. We are using those as a reference. We do have a couple of questions.

> *Question 1:* The clear expectations of a STEM School. When we do this document we are saying to the exemplary we are doing this, but we don't have the basic yet. We want to make sure that we are the ones who are putting that together? Do we need to put together a standard expectation? Is there one out there? We are looking at Elementary, Middle, and High School. Before we can pull this together we need to know what those basic expectations are before we can talk about exemplar.
>
> *Question 2*: Who is actually going to administer this program? Because that again may help us decide exactly what that rubric will look like.

We have made progress and are continuing to look through documents, and we are starting to look for those specific elements that we want. But we are not ready to report anything but we will be ready for the next meeting to give you some feedback. If anyone has any feedback on those two questions we would appreciate it.

Mary Pike: Those are valid questions and it does specifically state in the bill that you have to "develop a plan for identifying and awarding recognition to pupils in this State who demonstrate exemplary, achievement in the fields of science, technology, engineering and mathematics; and develop a plan for identifying and awarding recognition to no more than 15 schools in this State that demonstrate exemplary performance in the fields of science, technology, engineering and mathematics." It does

not identify anywhere ever in the bill who will be using the rubric or your plan to identify those schools. That needs to be a further agenda item later on when we move to the last agenda item. For someone to actually take a rubric that has been used maybe that can be built into the RFI for the Non-Profit. Maybe it is the Non-Profit that does that, and somehow that is going to be money. Someone is going to have to travel around and us that rubric.

David Brancamp: That is also we can bring forth to Carrie Parker. We will ask her for further clarity since they are the ones who need to give us those steps. He will make sure you have the correct wording on that, and he is assuming the Dennis Perea will take Frank Woodbecks position on that committee.

Michael Mohar: He has the part where the legislation does talk about the identifying Non-Profit Corporation. It does say that the Non-Profit Corporation will assist in the implementation of paragraphs A, B, and C. B and C cover what we just discussed so it is not out of the question that a Non-Profit can do that as well and be paid for developing grants for that purpose.

David Brancamp: Other questions or comments regarding Committee B & C?

Nancy Brune, Committee Chair A & D: The committee has met informally on a few occasions to get a better understanding on what they have been charged to do, and to figure out who would take what sections and lay out an initial work plan. Originally they started to survey the educational STEM programs curricula and activities that are currently in place. Focusing on initially the STEM designated schools outlined in the Nevada STEM Coalition's Report. In doing this we identified some gaps and challenges and realized we need to go back and survey all schools in Nevada, elementary, middle, and high schools. In order to get a better sense of what they are doing from a comprehensive perspective, we need to know what activities, what is their narrative or vision at individual schools that are doing STEM activities, STEM programs, and have curriculum in place. We will walk through a potential survey and ask for approval on this survey so we can start sending out through Survey Monkey and hopefully have something to report in July. In the course of doing this we will have a sense of what are the best practices of the schools that are doing STEM well and that should feed into the rubrics.

***There were some technical difficulties getting the PowerPoint going and on both screens in the North and South. We will give everyone a copy of the PowerPoint.

Theresa Corry: The first slide is the bill. The bill states that we need to find program that could be for use.

- We look for STEM programs, and then present those to the Board.
- Identify what that looked like, and what that meant.

Two definitions:

1) A comprehensive STEM program at the site. The full system STEM Program
2) STEM programs that are for purchase.

To find the STEM programs we came up with we ran three surveys.

1) Random Schools in Clark and Washoe County School District's in Elementary, Middle and High School. We did 10% of all the schools in these counties. We created a STEM chart so we could put Science, Technology, Engineering and Mathematics. Whatever was listed on those websites, and scoured the websites for anything, and everything that was part of their STEM Program.

   We tried to get 10% of Elementary Schools and ended up with 29 Random Schools. There was hardly STEM, and anything on a website was just a link. We did 7 middle schools, and they had minimal STEM. There were 6 High Schools which had moderate STEM incorporated on their websites showing some things that were available.

2) STEM Identified in Nevada at the Elementary, Middle, and High Schools. We used Gathering Genius to get STEM schools they identified as their STEM schools, and created a STEM chart for those STEM schools. We completed the website survey for those schools.

   We came up with 6 comprehensive Elementary STEM programs; 4 Middle Schools that had comprehensive programs; and 16 High Schools that had comprehensive programs.

3) Surrounding State Schools at the Elementary, Middle, and High Schools. We used STEMSCHOOLS.COM to find identifying STEM schools in the surrounding states. We created a STEM chart, and a website survey for those schools.

Based on those surveys with schools with comprehensive programs, these were the most commonalities among Elementary, Middle, and High Schools.

Elementary Schools

- Equipment-IPads, Smart Board, Computers, Science Kits, Manipulatives
- Unique Days, Nights Field Trips – Math Day, Engineering Day, Science Day, Family Science Night, Math Night, and specific field trips to STEM sights related to the curricula.
- STEM Curriculum – FOSS, Engineering as in Elementary, Project Lead the Way, Investigations, Everyday Math
- Teaching Resources – Summer Institutes for teachers and students, on-site continuous professional development for the teachers so they could feel comfortable with what they were doing for the implementation.

- Other – A STEM partnership within the community that worked together.
- Professional Development –

Middle Schools

- Program Sequences - Graphic Design specific program sequences that the students could go through.
- Days – Pie Day DiVinci Day
- Clubs – Lego Clubs, Something 18, and specific clubs they would go into competition in, and perform in.
- Teens

High School

- VIO Technology – Whole program sequence
- Architecture Engineering – Whole program sequence.
- Mechanical Engineering – Whole program sequence.
- Nursing – Whole program sequence.

The four purchased specific STEM programs are the ones I have mentioned.

Elementary

- Investigations
- Engineering is Elementary
- Everyday Math
- Rocket Math
- FOSS
- Delta Science Kits

Middle & High School

- Project Lead the Way

STEM in Nevada Schools Summary. We started at the Random Schools and basically showed that at the Elementary level STEM is negligible. At the middle school level it is minimal with typical math and science classes. At the High School level there is a moderate amount.

This was to show how important our group is to try to get access to STEM. Elementary level there is hardly anything. We need to get students equal access to STEM curriculum.

The last slide was the limitations of the survey since the survey was done on-line and on whatever was on their site.

Katherine Neddenriep: Is there intent to expand the survey beyond Metro Nevada?

Theresa Corry: Basically there will be the intent so that everybody will be able to respond to the survey if they so desire so we can get additional information.

Carl Reiber: You have elements that are listed. Did any of the schools list measurable learning outcomes and benchmarks?

Theresa Corry: The measurable learning outcomes and benchmarks come straight from 3rd, 4th, and 5th grade testing in Science and Math.

Carl Reiber: Ok, in numbers, are these kids exposed to a science project? Is there a certain number of kids and do we have a sense of how many students will be passing through these schools?

Theresa Corry: In this case the schools we focused on were those with the comprehensive STEM programs. So at the Elementary level we are talking about 300-600 students, I am not sure what the numbers would be at Middle school and High School levels. Keep in mind that at the Middle and High School level it is a sequence program and not everybody goes through the programs. But at Elementary level everybody goes through the same sequence.

Carl Reiber: That is what I thought.

Michael Mohar: When I was in High School we had Auto Shop, clearly today you would use a computer. How do you take into account things like that within the school systems?

Theresa Corry: For this online survey we went specifically to sequence programs that would have to do with Science, Technology, Engineering and Math and just focused on them. At some point it had been stated that we should focus more on our economic area what Mr. Muro was talking about and we made sure to include those particular areas also

Michael Mohar: Am I thinking to broadly? There is curricula that is called STEM curricula, and there are ways that teaches are using tools to educate their students. Both those cases are important.

Theresa Corry: This is why we want to shift now and this was the preliminary findings. Now we want to go to a survey instrument that will go to every principal in every school who can address we are covering STEM this way, and this way, and this way.

Michael Mohar: Okay, I see how you are doing it.

Anne Grisham: I commend you for doing that because an earlier conversation we had was that schools' identifying themselves as STEM is one thing, and there are a number of schools that are doing STEM that may not be identified that way, or don't use it in their title. Science is not 3rd, 4th, and 5th grade testing, it is just 5th grade. There are only 5th grade science test scores.

Mary Pike: Based on Mr. Muro's comments we are going to have to go back and get a basic definition of STEM. At this point if we send out a STEM survey that says we are

surveying your STEM programs, what do we mean by STEM? Because if you are dong Visons Math it does not necessarily mean you are doing STEM. Math in not necessarily STEM. Are we looking at integrated programs that include Science, Technology, Engineering and Mathematics? You can embed those in everything, but if you are teaching those in isolation you are not count, and that is what the council may need to decide. We need to talk about that focus instead of identifying individual math, science, engineering, and technology programs. Dr. Brune do you want to talk about the survey before we continue the discussion? I have comments on that and this would be a good time to bring your survey and talk about both topics at the same time.

Nancy Brune: She sent Michael Mohar a copy of the survey. The ideas in the initial survey we found some gaps, and we were looking at either a random survey, or those schools identified as STEM schools. We recognize that there is a huge landscape out there and a lot of schools are doing great work in STEM that has not been identified as STEM Schools. We recognize the need to conduct a broader survey and send it out to all Elementary, Middle, and High Schools. We have also had conversations with some folks that have identified school districts and schools that are doing great work. For example, Douglas County School District tried to make a regional STEM Center. I am are not sure what that means, so that warrants a conversation to figure out what is this comprehensive STEM program they are thinking about.

The idea is that we would send this survey to all principals at all Elementary, Middle, and High Schools in Nevada. As well as the STEM coordinators at the different school districts around the state. We would use the Survey Monkey to initially distribute it, but also to follow up on some phone calls to really have a one on one reviews. The final product would be to compile all information from this survey, and other information we collected from other states, along with the interviews; and prepare a document that will inform the rubric and other work that the council has been charged with. Currently we have 17 questions on the surrey. Take a couple of minute to read through the survey.

Mary Pike: As a central office person I am looking at the big picture. Question #3 talks about the STEM Standards. We don't have STEM Standards in this state. Common Core Math and ELA are not called Nevada Academic Content Standards. As a building administrator, this time of year is so crazy that if a survey is sent out at this time with open-ended question, I fear that we won't get any results back. I think if we take more time to craft this so there are drop down menus; like what STEM Programs do you have and list some specifics. Do one of these for Elementary, Middle, and High School or craft it to grade levels you might get better results and maybe send it out in the first week of August. I hate to delay, but if we want good results back we need to do grade level specific, or Elementary, Middle, and High School with drop down menus so they can click buttons, and then add some open-ended boxes so they can add materials. I can already see some high school principals looking at #11: What technology does your school have? I know they are going to put computer lab. Further discussion I don't want to postpone things, but we need to be real cautious so we get good results back.

Anne Grisham: I agree with you. Especially this time of year, it is really crazy. I do agree we need check marks and boxes, but also need to leave an open-ended box so if it is not covered they have an opportunity to respond. Maybe add none of the above here is what I have. My suggestion, for question #4: Cost, Availability, Quality. I would also put professional development. /Sometimes that is the bigger hindrance such as I got the stuff but we don't know how to use it.

Derek Fialkiewiez: I agree with Mary. As being a Middle School Principal it would be much more beneficial to have three different surveys. One for each level that is specific to that level. With the drop down menus I don't have to go through all of these programs that I would never use, and don't know what they are and accidentally chose one because it sounds like something I do.

Carl Reiber: We have been surveying Middle Schools for our Gear Up Grant for principals and teachers for the STEM discipline. There is a disparity of responses we are getting. The principals will say one thing and the teachers will say another.

David Brancamp: To go back to Mary's original point, to deal with #1, without a definition of what we call STEM, this leaves it open for a lot of interpretation. We may get variety and not necessarily get the answers we are looking for to drive us forth. I know it delays, but we may want to bring in the definition of STEM. The State has a definition of STEM that they post out that was adopted by that group. I think it needs to come in front of this council to make sure that sits where we are feeling. That would be a very different take on #1. As well as you just work through them on what is a STEM related activity. Could have been something from the far end, to something Mr. Muro started with us, to something I wanted. I have seen some of those rubrics out there all day long, to I must not qualify. I don't want to do this because I don't want to give you more bad news, you get enough bad news. If you start looking at it with your original look there could be some disparity. Either they will tell you it is great, because we have someone we know working at a STEM schools at the Elementary level. Hearing it is rather disparaging out there, even discouraging if you were a staff member on that side. We want to make sure we are going to get the right picture, and how we are going to paint that without a true definition we are all working off of, I would be real nervous as to what we may get. Include in that, here is what we need. Answer according to that definition whether you agree or not, this is how we are going to couch STEM in, and you will give us a better view. You started this morning with us by saying here is how we included, and we had opportunity to ask you some clarifying questions. /Where on the survey do they ask you, do they have a place to contact one of us?

Theresa Corry: I would like to go back to the original bill to make sure we understand all we are supposed to do is provide programs and propose programs that are being used in the State and suggest programs to be implemented to the State Board. So that we don't get a bigger picture of what we really are supposed to be doing for this particular one.

David Brancamp: That makes sense on that is just starts to morph into the other where we are going to head down, how we are going to award these kids, and because it is a

public meeting and having a State Board member present, I will imagine they want some clarification; so what is that program, tell me more; so they can make an informed decision as well. We need to do our homework so when we present it we don't come back from the board with them saying that was great, could you tell us more information. So they are well informed on it.

Theresa Corry: That leads into then does this council see us coming up with a comprehensive type STEM system Mary was talking about. Or should we stick with programs that are out there available for use that may focus on science but include technology and engineering within it What direction do we want to go as far as programs we are going to be presenting?

Derek Fialkiewiez: I am bothered by the word program. It seems the only way to have STEM is through a packaged program. Where I believe a good teacher implements STEM all the time. I don't know why we have to put it into a program.

Theresa Corry: That is what the law is telling us to do.

Derek Fialkiewiez: Could we just state that good teaching is a program?

Theresa Corry: Twenty years of experience in teaching at the Elementary up to 6th grade level tells me that in order to get STEM to student we need at a specific program that includes kits, and professional developmental, and consistency so that the students really do get STEM. Then you don't have the discrepancy that the Principal says one thing and the teacher I am good teacher so I do this, I'm a good teach so I include it. There is no consistency.

Katherine Neddenriep: I think question #5 what simulated activities does your school support? I think that gives the opportunity to correct that information about what is happening outside of an existing boxed program. I think as a council we are going to come upon some things that are happening that could be developed and packaged into a program. That should be marketed somewhere, which is how some of the grant funding will potentially be used. What should be incorporated into question #5 and #8, because it is kind of the same question, but one is in school, and one is out of school, are partnerships outside of the school. Do you have your kids go to a local manufacturing facility? I think if they have established a partnership with another organization and or business, we need to capture that as well. In Elko they have a coop grant where they are putting kids in the local print shop doing graphic design. Or in other businesses within the community where it is a high school internship where they are learning some of the same things, where it may not be a program in the school, but it may be relevant to what we are looking for here.

Derek Fialkiewiez: I believe that is part of question #14. Would you want that to be a part of those two questions as well, or as a separate question?

Katherine Neddenriep: I think either is fine. I am thinking some of us have 17 questions. That is a pretty long survey. Some of them could potentially be condensed or combined to shorten the survey.

Nancy Brune: Even though the legislation does say programs, in our thinking we try to look at programs and activities to identify or pull out best practices which would then inform the rubric and our entire report to the Governor.

Mary Pike: We do need to be cautious to make sure the Principals don't feel they are incriminating themselves. I do know that K-5 science is not being taught in many schools where their focus is math and ELA. That is all they do all day long. They don't have a STEM specialist, they don't have science pullouts. We have to make sure that Principal has some sort of out. We collected some great data about increasing scores on what type of STEM and Science Activities they are doing. Sometimes they only occur after school. They may have a Robot X Club or a Lego League. I don't what a Principal to look at this and say I don't do any of this. Rewording it and going back to the general definition and a program if a school is doing project based learning. That is not a boxed learning but PDL is a way to get STEM in every classroom

Nancy Brune: I think one of you raised the concern that a principal may feel he is being judged they may answer where they want to be in a couple of years. This is where the follow up phone calls will help because you want to get a sense of their narrative or their vision. They may not be where they want to be, but what are they looking to do. What are their resource gaps preventing them from getting to where they want to go? And maybe some professional development as someone had mentioned. That is why we see phone calls are a really important part of reaching out to folks who are trying to talk to you about this.

Anne Grisham: I think if you do an opening with a couple of sentences such as "We are gathering this information to help increase STEM. We are trying to help you." That stands a little better than we are trying to judge you.

David Brancamp: I agree completely with what Anne just said. I think we have to be cautious as part of our response to legislative is that we will get them these results. As much as that is to help move them forward. Those who have been in the State long enough know what happened when we had to do that survey on homework, and homework matched to the standards and what legislation did with that, so we need to make sure to almost hold the horse for a second. Make sure we are getting what we want by getting information not only we can use, but does not incriminate the system to a point that they are not going to do these surveys anymore if all these people do is turn around and take it back and run with it in the wrong direction. So caution is the way because we do have a history if anyone has been in this State as long as I have, and I am not a native Nevadan. That hurt some people's trust of what that was done with. It was done to them and nobody knew why. Yes, we want to help them but we will use this to tell the story of where STEM is and why we want to move forward. Make sure that is very clear to them.

Mary Pike: I wonder if it would be prudent to send the same survey out to the Principals and Teachers. Remain anonymous that the drop down would be what County you reside in but not have a school name or a Principal name on there at all by having them check whether they are a Principal, Teacher, or a Dean. That way we can filter it through Survey Monkey. You can filter all the Teacher results out and Principal results out and actually give a comprehensive report of what administrators feel and what the Teachers feel. Maybe we will get some more honest answers.

Michael Mohar: I appreciate those of you that are professional educators. Some of this is new to me; I am just a science geek. Understanding how some of the infrastructure works in the State of Nevada is very interesting. I would take that into account when you are putting any kind of survey together. We have done surveys and part of my organization does training for cops, fire fighters, and paramedics. We were able to demonstrate rather clearly that depending on how you ask the question, you will get very different answers to similar questions. This is very important as we move forward, it deserves due consideration.

Carl Reiber: Would it be appropriate for me to share that we have been doing a survey in Middle Schools for Gear Up, but it doesn't quite match what we are doing here. We have done both interviews with STEM faculty and professionals. We have done a formal survey of STEM teachers of the Gear Up Middle Schools. We have results, and I would have to check with my colleagues because they are going to publish this so they are a bit tight with it right now. I think it would help us move forward with this a bit, so is it appropriate that I share that in some way. How does that get brought in?

David Brancamp: How that would go into play is our final report because by that point maybe it is published.

Carl Reiber: You have seen the questions already Mary, and might see what it needs.

David Brancamp: We can include things in the report as we might include pieces of what we learned from Brookings because that is our report. We will present that as a team. Mary and I will tackle the initial draft and get that out to the members. That is where we can say these are places I would like to insert this date.

Carl Reiber: To help inform their process, I can make available some of the questions.

David Brancamp: Yes, some of the questions you can.

Mary Pike: Just the questions so we might frame out questions similarly.

Carl Reiber: Just so you can see what has been done.

David Brancamp: The questions part is not a problem.

Carl Reiber: Okay.

David Brancamp: At this point we will not call this; we will send it back to the committee to move to the next level and next draft. We do commend you, thank you. We have some great starting points for us from all committee members.
Thank you Nancy for reminding us that when we set the date for our July meeting, we would need all PowerPoints and materials at least two weeks in front of the meeting or we will run into what we did today. We could not make comments or share on the information because Nancy needs to post that to our set. Tracy Gruber, Mike Pacheco, and Andre DeLeon can follow up with their chairs of each sub-committee to let them know when you need materials or we would not be able to move forward. Open meeting laws can lock us when that piece comes into play.

- ***(7) Additional Opportunities for STEM Advisory Council to learn about STEM activities in Nevada, and Communication Procedures Among Council Members (Co-Chairs David Brancamp and Mary Pike):***

David Brancamp: How do we share information amongst ourselves when we come across some incredible pieces on STEM? You can send the information as an e-mail to Mary or Dave and they can blanket them out as the Co-Chairs to members and post it. If we start doing in between, is that in violation because we are sending it to every member? What we can do it take it, and decide if it makes sense before we give to members and have Nancy Martineau post it to the website as well so we are not violating open meeting laws. Heads up on where these go, as basic as public record, Nancy has to keep track of anything we share back and forth. So if anyone ever questioned us, we would have a record to say that is what we talked about. Some STEM activities we may want to go watch, or go talk to some of the business people. Remember our numbers that only a couple can go because if you hit that maximum of nine, then it is a quorum. You can have conversations with business people like we talked about out in Elko. It is probably wise and helpful so we have more information to bring to the table. At the same time if you see something at a STEM conference or if you are lucky to go to a place in Alabama and there is information you want to bring to our next meeting, you need to tell Mary or Dave to get it on the agenda. Because if it is not on the agenda you won't be able share that information. Just like today, we can't define STEM today because it is not on the agenda.

Mary Pike: There is a STEM conference coming up sponsored by the National Science Teachers association in New Orleans on May 14-16, 2014. She will be in attendance and will bring back ideas that she might be able to share with the council. There are additional meetings coming up she will attend are Investing in Innovations Grant Awardees in Washington, DC. .A lot of them are in there third year of evaluation so they may have programs that have proven to be successful. That is what we are looking for a scale up. He grant is developmental so they can't scale up the evaluation materials. Those are the types of things we need to look at what is out there to scale up. She will bring those to the table at the next meeting.

David Brancamp: Are there any other functions we should keep on the calendar?

Katherine Neddenriep: The last meeting she talked about the Nevada Mining Association Teachers Workshops. We did the one in Las Vegas April 15-16, 2014. There were just over a 100 participants. The Northern Workshop will be July 15-16, 2014 at Bishop Manogue High School in Reno. There is information on that on the Nevada Mining website nevadamining.org. If you have questions, contact her and she will share information. The workshop is free, except if the teacher wants a professional development credit, or a graduate credit through the University of Nevada, Reno. That is available at the Northern Workshop. The Nevada Department of Environmental Protection has a seasonal newsletter that goes out targeting educators that talk about activities and events. You may want to keep that in mind for a resource for those you interact with.

Carl Reiber: Most of us are academic at this table and I think we are missing the business element. We need to formally approach business to get their input in terms of being desirable of students etc. We can do that by going out to the Chamber of Commerce, or going out and one-on-one speaking with business owners in the community. This is an element that is critical to this whole operation.

Nancy Brune: The Guinn Center wants to let people know that the Guinn Center for Policy & Priorities is also working on a STEM paper. As part of that we are holding interviews with different sector councils. She can summarize those findings from a business perspective of where they are seeing the gaps and some of the partnerships they have done with Great Basin College and other schools. She can expand that to include the chambers at least at the very minimum report on the conversations they have had with the Sector Councils.

Theresa Corry: Do we need to make that an agenda item, and Carl's an agenda item?

Mary Pike: Here is a list of agenda items so far:

- A definition of STEM
- Bring the State Adopted definition to see if we can do anything with it.
- Nancy Brune, Sector Council Information

We can add more agenda items. Send them to Dave and Mary so we can get them added before the next meeting. It is imperative that we keep the presentations going like the Brookings Institute. Thank you for coming here today. Those type of presentations to keep us all current. If you think of someone that might like to come present keep us informed.

David Brancamp: We will have Nancy Martineau contact Carrie Parker of a member of the Attorney Generals office to see if they can attend to help us with the legal questions.

Nancy Brune: We want to include on the agenda a draft of the Survey Instrument.

Michael Mohar: Add to the agenda for the next meeting "to approve a path forward in securing a Non-Profit.

Carl Reiber: In terms of reports, do you want something from the Nevada System Higher Education (NSHE) on what the community colleges and universities are doing in the area of STEM?

Mary Pike: We do need to have a survey of NSHE programs. We began that process with Elementary, Middle and High School. But we do need Higher Ed as well. I don't know if we need to develop a survey for them. What would you recommend?

Carl Reiber: I will let you know what they have available.

Mary Pike: That could be an agenda item. Survey of STEM Programs from NSHE.

- ***(8) Future Meeting Date and Agenda Items (Co-Chairs David Brancamp and Mary Pike):***

Mary Pike: We have July 15, and July 28-31 of July are open. Any motion for a date?

Theresa Corry: Motioned to meet on July 15th.

Judy Kraus: Seconded motion.

Mary Pike: We have a motion and a second for Tuesday, July 15th. Please look at your calendars.

Derek Fialkiewicz: He motioned to change it to July 31st. Because for administrators the first day back to work is August 1st, and July is the only month off for them to take vacations.

Theresa Corry: Seconded that motion;

Mary Pike: We already have a motion on the table and have to vote on that one first. Any further discussion before we vote on the first motion for July 15th. We held a vote and that motion has been vetoed. We need another motion for the a new date.

Derek Fialkiewicz: Motioned to meet on July 31st.

Theresa Corry: Seconded this motion.

David Brancamp: Just for your information, that is a Thursday.

Mary Pike: We have a motion from Derek Fialkiewicz, and a second from Theresa Corry for July 31st. We held a vote and July 31st will be the next meeting date. It will be held in both Nevada Department of Education Board Rooms.

Tracy Gruber: Yes, they have already been booked in both Nevada Department of Education Board Rooms for all dates discussed.

David Brancamp: Please remove the other dates not selected.

Tracy Gruber: Will do.

- ***(9) Public Comments:***

Mary Pike: Are there any public comments?

Nancy Martineau: None from the North.

Mark Newburn, State Board of Education Member: Jean Hart from FIRST the Robotics is interested in thanking you for this award about what their program is about.

Mary Pike: I do know Jean Hopper and we can extend an invitation to the next meeting if we so desire.

Mark Newburn: I was supposed to tell her when the next meeting was but did not see this one until yesterday.

Mary Pike: Nancy Martineau, please add Member Newburn to the STEM Advisory e-mail list so he can have notice of when our meetings will be held.

Nancy Martineau: Okay.

Mary Pike: No more public comments in the South.

- ***(10) Meeting Adjournment:***

Mary Pike: We need a motion to adjourn the meeting. Carl Reiber motioned to adjourn the meeting, Katherine Neddenriep seconded the motion. We voted

Meeting adjourned at 12:57 pm.

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