Business, Consumer Services and Housing Agency– Governor Edmund G. Brown, Jr.

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MEMORANDUM

DATE	08/14/2015
TO	Task Force- Innovative Subject Matters Committee Members
FROM	Ben Triffo, Legislative Analyst
SUBJECT	Task Force Report Preliminary Draft

Background:

Attached is a draft of the Task Force Report on Innovative Subject Matters. This preliminary draft was prepared by Bureau staff to provide the Task Force a framework for discussion at the August 18, 2015 Task Force Meeting. It includes a brief history of the Bureau, a summary of the comments by guest panelists who spoke to the Task Force, and identifies the categories of subject areas that the Task Force must include in the report.

Action Requested:

To review the draft and be prepared to progress toward final recommendations and findings so that the Task Force Report may be transmitted to the Advisory Committee no later than January 1, 2016.

Coding the Future

Recommendations for Regulatory Oversight in the High Technology Education Field

BPPE
Bureau for Private Postsecondary Education

STATE OF CALIFORNIA
dca
DEPARTMENT OF CONSUMER AFFAIRS

EXECUTIVE SUMMARY:

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ABOUT THE TASK FORCE MEMBERS:

Shawn Crawford, Chair

John Carreon

Marie Roberts De La Parra

Liz Simon

Kim Thompson-Rust

THE LANDSCAPE:

During the late 1980's, private postsecondary education was regulated by a division within the State Department of Education. It was during this time California developed a reputation as the "diploma mill capital of the world". Despite its seeming positive moniker, the title was given to California because private institutions at that time were indiscriminately offering postsecondary degrees without proper oversight. The result was growing concert over the integrity and value of the degrees issued by private institutions. Senate Bill 190, the Private Postsecondary and Vocational Education Report act of 1989 (Reform Act) overhauled the state's regulatory program and oversight authority of private colleges was transferred to a 20 member Council which operated as a separate entity under the umbrella of the Department of Education. Concurrently, the Maxine Waters School Reform and Student Protection Act was adopted, and expanded requirements and standards for private institutions with respect to solicitation, recruitment, enrollment and school performance.

In 1995 The California Postsecondary Education Commission found that as many as 1000 unapproved institutions were still in operation in the state. In order to address this lingering concern, Assembly Bill 71 (Wright Act) was enacted in 1997 creating the Bureau for Private Postsecondary and Vocational Education (BPPVE), concurrently moving the oversight of these institutions to the Department of Consumer Affairs (DCA). Still, the Wright Act simply transferred responsibility for administration of the Reform Act to the BPPVE, and extended the Reform Act's sunset date. Following an ineffective tenure, on January 1, 2007 the regulatory authority of the BPPVE was allowed to sunset, dissolving the Bureau and leaving the state without a regulatory body to oversee private institutions and ultimately, protect students.[1]

Bureau for Private Postsecondary Education

In 2009, the Legislature and the Governor reached agreement on the need to regulate these institutions and codified the Private Postsecondary Education Act (Assembly Bill 48, Portantino, Chapter 310, Statues of 2009), thus creating what is now known as the Bureau for Private Postsecondary Education under the California Department of Consumer Affairs. Today, the Bureau is responsible for:

- Protecting consumers and students against fraud, misrepresentation, or other business practices at private postsecondary institutions that may lead to loss of student tuition and related educational funds;
- Establishing and enforcing minimum standards for ethical business practices, health and safety, and fiscal integrity of postsecondary education institutions; and
- Creating and enforcing minimum standards for instructional quality and stability for all students in private postsecondary education and vocational institutions.

Founding of the Task Force

In yet another reform, the Bureau's authority was recast charging the Bureau to create a Task Force to review standards for education and training programs which specialize in innovative subject matter and instruction for students in high-demand technology fields for which there is a demonstrated shortage of skilled employees – Senate Bill 1241 (Lieu, Chapter 840, Statues of 2014). Specifically the Task Force is to report on the disclosures students receive upon enrollment at an institution; whether the means of reporting student outcomes and the content of those reports are appropriate, and steps the state may take to promote the growth of high-quality training programs in skills for high technology occupations.

In order to construct a well-rounded view of these institutions and programs, the Task Force held a series of meetings between April and **Final Month** 2015. From day one the Task Force decided that they did not want to approach their mandate strictly from the position of a regulator. It is because of this that the Task Force wanted to encompass as many perspectives as possible. The Task Force consists of two members from the BPPE's Advisory Committee, a Postsecondary Education Expert, and two institution affiliates; along with input from the BPPE's Chief. It is because of this holistic approach that the Task Force was able to draft agenda items that contained input from their individual members, along with pressing issues directly from the BPPE, as well as public concern. This blend of input led to robust meetings and discussions that ensured that the need of private industries was met through responsible and fair regulatory proposals, and assurance that students would not be victim to predatory practices that can occur in the private postsecondary industry.

During the meetings the Task Force heard from a variety of speakers that came from the likes of the Bureau for Private Postsecondary Education, former students, institution representatives, as well as employers of graduates of these institutions[2]. In order to decide who would be providing testimony; the Task Force requested contact information of previous students, and employers of graduates from two Bureau approved institutions; Dev Bootcamp and General Assembly. Dev Bootcamp and General Assembly provided an extensive list of names of both previous students, and employers of graduates. Individuals were randomly chosen off of these lists, and contacted in regards to participation on a given panel. The end result was a panel of three former students, and a panel of three employers of graduates. Concurrently, the institutions also provided contact information for regional leadership from each of their respective companies. All information in this report is derived from said testimonials, meeting minutes, meeting webcasts, and expert opinion.

Based on meeting testimonials, the Task Force decided that there needs to be a broad set of characteristics that can be used to classify an institution as having a High Technology Program. However, due to the fluidity of the Technology Sector, it must be noted that these characteristics, like the sector, can be constantly evolving. It was determined that a High Technology Program:

- Provides instruction on innovative subject matters that will prepare graduates for highly skilled employment in which the graduates are proficient in the theoretical and practical application of these innovative subjects. These subjects may include, but are not limited to:
    - Computer systems and analysis;
    - Data science and analytics;
    - Programming;
    - Software engineering and development;
    - Computer science;
    - Coding;
    - Analysis, design, business and marketing associated with these innovative subject matters.
- The institution offering these programs is non-accredited and the program is non-credit bearing, with a length of less than 600 clock hours or 20 weeks.
- Focuses on collaborative skill development, and is project-based and competency driven, in which the program's skills are defined and assessed based upon workforce demand and employer feedback, exclusive of textbooks, and are graded on a pass/fail basis.

It is also worth noting that these schools are immersive, often focus on soft skills (such as team collaboration, presentation, resume skills, and interview preparation), and receive influence from local businesses that hire their graduates. As such, the course offerings are often evolving, showcasing the needs of local businesses.

RECOMMENDATIONS:

Per the statutory mandate in California Education Code 94880.1, the Bureau's Task Force is charged with reviewing standards for educational and training programs specializing in high-demand technology fields and innovative subject matter and was tasked with making recommendations on a series of related questions. The intent is to lay the foundation for the bureau to make concrete and efficacious changes to the high-technology education and training fields to ensure student success and provide an avenue for the state to respond to the shortage of skilled employees in California. The following section seeks to provide recommendations and responses to three over-arching questions that help serve this purpose.

Disclosures:

"Whether students attending institutions should receive certain disclosures prior to enrolling in an educational program offered by those institutions" [CEC 94880.1(a)(3)(A)]

Prior to answering this difficult question, the Task Force believed that is was necessary to first learn more about how different institutions disclose specific information to students and heard testimonial from institutional representatives, former students, and an expert from the BPPE.

The Task Force first spoke with representatives from two Bureau approved immersive educational institutions aimed to educate students in technology, business and design – General Assembly and Dev Bootcamp. While these institutions had fundamentally different missions and student communities, there were many similarities in the disclosures that each institution provides to its students.

Both institutions noted that they view the disclosures as part of a greater admissions process. General Assembly's admissions process beings with an application, followed by an interview with an admissions representative. This interview is deigned to review time commitment, and the resources required for the program and serves as the initial informal disclosure about the expectations and realities of each student. Following the interview, students complete a coding exercise designed for applicants with no coding experience. After the coding exercise the prospective student completes an interview style activity knows as the "Fir Test" to determine if the individual will work well in groups, and that their admissions are a match for the program. Following this "Fit Test" the applicant will meet with an instructor to go over the results of the coding exercise and debrief about the previous admission activities. Should the applicant complete the entire process, they are offered admission. Prior to final enrollment however, students are provided with a school catalogue that outlines course information, graduate information (employment, salary, etc.), time commitments, and overall student expectations. In the same vein, representatives from Dev Bootcamp noted their admissions process is fairly similar to that of General Assembly. During the application process, prospective students are directed to former student testimonials, along with responses to Frequently Asked Questions. After an application has been submitted, the prospective student will have an interview with an alumnus, wherein they are introduce to the Student Code and Student Agreement. These documents outline the time commitment, and expectations of the prospective student. After the interview, if the student is viewed as a fit for the program they will be offered admission. Both institutions attempt to be as upfront as possible with all potential students about the rigor and demand of their programs. After a student has been granted admission, both institutions have an "on ramp" program for students (Dev Bootcamp's "Phase Zero" and General Assembly's "Pre-Work"). The on-ramp programs, which can also be understood as an informal orientation, are online based, and serve as an introduction for the student to their class cohort, begin interaction with coaches and faculty (having continued discussions on expectations), and start to lay the foundation of their knowledge.

After discussing the admissions, and the pre-work process of both institutions, the Task Force felt it was important to be informed of any feedback from current of former students received by the institutions

regarding disclosures. The intuitions self-reported that more often than not students note they would have liked to have been more aware of the intensity of the program. Both General Assembly and Dev Bootcamp are rigorous and intensive programs that seek to immerse students and challenge them to learn new, high-technology skills in a fast-paced environment. Representatives reported that typically six weeks into the programs students "hit a wall" and tend to struggle in overcoming challenges presented to them. Accepting this reality and seeking to promote greater student resource and stress management, General Assembly provides a support structure for students through constant access to instructors and one on one advice. Along with on location alumnus to help give advice to students, Dev Bootcamp takes a more unique approach by having mandatory on-site therapy sessions, as well as required yoga classes once a week. Both institutions noted that while it is important to be as transparent as possible about the program rigor prior to enrollment, student responsiveness, organizations and work ethic play significant roles in reacting to the difficulty of such programs.

After speaking with institution representatives, the Task Force spoke with three recent graduates from both institutions. Similar to the institutions, each student came to their program with a different background, and for different reason, yet there were common themes present between each of their experiences. The first item that was overlapping in each student's experience was the transparency of the institutions. All three students noted that each school was upfront and honest about the rigors and expectations of the program; and that they were not surprised by the workload when they began their programs. They were provided student testimonials, frequently asked questions, school catalogues, as well as student expectations. With all of the documentation that was provided, they were fully aware of what to expect when they started the program.

An additional shared experience between all three students was their exposure to their cohort groups. While the students felt that they were given ample time to interact with their cohort groups during the on-ramp period, they wish that they would have been provided some additional information on their peers, as well as on those who were in cohorts before them. This information could have provided valuable insight into the skill levels of their future peers, as well as allowed them to see the results and experiences of previous students. To this extent, some of the students felt that a more selective admissions process would lead to more successful cohort groups.

The final item that was apparent across all three experiences was the on-ramp period. All three students felt that this process was beneficial to their learning curve during the program. The on-ramp periods allowed for the students to bond with the fellow members of their cohort group, and at the same time begin to build their knowledge base. However, there were also shared ideas on what could be changed during this process. It was made clear that the pre-work during this period should be mandatory. Students who dropped out of their cohort more often than not were students who did not complete their pre-work. Along with pre-work being mandatory, there was recommendation that this work be more technical in nature. Students felt that at times they felt overwhelmed by all the tools at their disposal, and that the on-ramp period would be a perfect opportunity for students to become acclimated to items at their disposal. All students noted that though there are improvements that can be made, both institutions were extremely transparent when it came to expectations of the student;

and that ultimately the responsibility is on the student to be prepare themselves with the information that they are provided.

Findings from the SPFS

Insert Recommendations once finalized

Outcomes:

"Whether the means of reporting student outcomes and the content of those reports are appropriate" [CEC 94880.1(a)(3)(B)]

In order to obtain a better understanding of the student outcomes, the Task Force again heard testimony from representatives of Dev Bootcamp and General Assembly; along with former program students.

While hearing testimony from the institutional representatives it was made clear that not only is it important to make note of student outcomes, but to also recognize the processes that the institutions have in place to ensure successful student outcomes. As was the case with disclosures, there is a substantial amount of overlap in the qualities of successful programs when it comes to student outcomes. Dev Bootcamp and General Assembly both seem to excel in coaching and support, they have extensive hiring resources, and they actively survey their graduates; leading to reporting of successful student outcomes.

From as early as a student's on-ramp period, Dev Bootcamp and General Assembly make it clear that there will be a firm level of support when it comes to careers after graduation. Both schools begin this support by introducing soft skills during the on-ramp phase. These skills often consist of working within a group dynamic, meeting project deadlines, presentation skills, etc. Both institutions believe that by exposing students to these skills it will help develop the necessary acumen to be successful in a high pressure work environment. Along with these soft skills, students also are exposed to mock interviews, resume critiques, and are aided in the creation of a social media profile, i.e. LinkedIn. During this period students are also introduced to career coaches who provide support and recommendations to the students throughout their time in their cohort. It is clear that both institutions believe that the consistent exposure to these soft skills and resources allow their students to be competitive job seekers after graduation.

Another common theme between the two schools is the various employment resources that are provided to students during their time in the program. While students are a part of their cohort, both institutions provide access to various systems that allow students to be exposed to potential employers. Though these systems have variances in their specific abilities, the overall capabilities are the same. When given access, students are able to post their resume, examples of their work, and articulate particular skills they have. Potential employers are also able to view these profiles, allowing them to

determine if the student is a fit with their company, and provides them with a channel of communication with the student. Career coaches typically have access to this platform as well, allowing them to stay in contact with the student and provide support as needed. They are able to see where the student is in the job search process (companies they have applied to, interview status, resume critiques). It is also not uncommon for the institutions to provide students with meet and hire events that allow students to interact with potential employers. Students are invited back to these events as many times as they wish. The continual career support and resources that are provided to students after they leave their respective schools is yet another example of the dedication that both Dev Bootcamp and General Assembly have towards their students.

Finally, both organizations place an emphasis on the follow up of their recent graduates. At the time of graduation, students are provided a survey asking about the level of satisfaction that they have with the program. Knowing that mindsets often change, both schools also send a follow up survey after an extended period of time after graduation; asking if the student still feels the same way. Once a graduate receives a job they are sent an additional survey requesting the terms of employment; i.e. company, hours worked, salary, and the amount of time it took to gain employment. General Assembly and Dev Bootcamp use this collective data to refine their programs, and to make them as accommodating as possible for future students; as well as to make the hiring and recruiting process as simple as possible for potential employers. It is clear that both schools measure their success by the success of their graduates.

Former students also gave testimonial that helped to inform further Task Force discussions and actions. Students who achieved positive outcomes following graduation noted that the most important features of the program were: soft skills, communication with program staff as an alumni, and end products from cohort/group-based projects and activities.

When speaking with the Task Force, all three students agreed that soft skill integration was a key component of their post-graduation outcome success. These soft skills prepared the students for working in a team environment, and allowed them to demonstrate to employers that they possess the equivalent of on the job experience. By demonstrating that they have worked collaboratively in groups for extended periods of time, the students felt confident and prepared when meeting with potential employers. There was a common thought amongst the students that a traditional university would not have provided them with this level of preparation. The students noted that even though the schools provided them with these skills, it was up to the student to be responsive and to make themselves open to critique and feedback.

Another component that led to successful outcomes for students was the level of communication with program staff after graduation. All three students noted that they were in constant communication with staff and were provided with general career support, breakout sessions, meet and greets, and seminars hosted by previous graduates. In particular, the seminars discussed topics that the previous graduates wished they would have known when beginning their search for employment. The panel was in

agreement that they felt completely supported by their school, and that they were provided with ample resources while on their search for employment.

The final component that the panel made particular mention of was the end products of working with their cohort groups. The three students noted that there were pros and cons to working on a collaborative project with their cohort group. They noted that it is a benefit to be able to take a deliverable to a prospective employer, and present it to them. Students are able to discuss with the employer how they would change the project if they were completely in control of the final outcome. The students believed that this allows them to sell their unique viewpoints and skills to the potential employers. Conversely, there was commonly held belief amongst students that if you were in a low performing cohort group, that you would not be able to obtain a quality job. Students mentioned however that program staff mitigate this concern by focusing the students on the project itself, and not post program employment. While this did not completely remove the tension surrounding potential employment, the students did appreciate the staff's efforts to maintain student focus throughout the cohort project period.

Along with the testimony heard from the institution representatives and former students, the Task Force also heard from three different employers. While most of the testimony heard from these panelists is being reserved for a following section of this report, it is worth noting that the employers mentioned different styles of onboarding of new employees in this sector. While many startups and companies do hire on a full time permanent basis; it was mentioned that some companies bring on recent graduates on a contract to hire, or as an apprentice. These contracts/apprenticeships are typically three months in length, and are at a lower salary than what a full time permanent employee would earn. Both Dev Bootcamp and General Assembly view these different types of employment as employed, and report their graduates as such.

Insert Recommendation Once Finalized

State Steps:

"The steps the state may take to promote the growth of high-quality training programs in skills for high technology occupations" [CEC 94880.1(a)(3)(C)]

To better understand the next steps that California can take to foster growth within the high technology sector, the Task Force looked to the BPPE; along with Dev Bootcamp and General Assembly; as well as three employers in this sector to provide expertise on the matter.

The Task Force first spoke with the Licensing Chief of the BPPE, Leeza Rifredi. While hearing the testimony, it became clear that there are multiple steps that a prospective school must take before becoming a Bureau approved institution; as well as when there are changes made to an existing school.

Ms. Rifredi began her testimony by stating that when the Bureau receives an application it is reviewed within thirty days by a licensing analyst. This initial review is for completion only, and not for compliance; it was noted that most applications that are received are incomplete, and that this is one of the major culprits of the Licensing Unit's backlog. After the review of the application, if it is deemed incomplete a deficiency letter will be sent to the applicant. Once corrections have been made and there is a completed application on file, it will go to a queue for review by another analyst. When the application reaches an analyst it undergoes a thorough compliance review, ensuring it meets all Bureau standards. If there are deficiencies a letter will be sent notating the needed corrections, with a timeframe of thirty days for response. Within two weeks of response, the application will be reviewed again for compliance. Once this review is complete the analyst will determine if there is a need for a Quality of Education review. A Quality of Education review is typically required when the applying school does not have any approval to operate from a different licensing entity, i.e. and accreditor. The Quality of Education Unit will following items: admissions requirements, projection of enrollment for the first three years, descriptions of each program, access to distance education platforms, how assignments are graded, skills and competencies that graduates will have, make-up of the faculty, facility and equipment available to students, job outlook, and how the institution plans on maintaining data on graduates employed in the field. If the application is still deficient but only has a minor issue, the Education Specialist will reach out to the applicant; if there is a major issue the application will be prepared for denial, followed be a deficiency letter. It was noted that the Quality of Education Unit currently has a backlog of six months to a year.

While continuing with her testimony, Ms. Rifredi noted that there are additional types of applications that the Bureau receives; ranging from new locations, change in ownership, or a change in educational objective (addition/removal of an offered program). In regards to schools in the high technology sector, the Bureau anticipates there being a great deal of changes in educational objectives, due to the fluidity of the industry. Because of this, the Bureau views these applications as a non-substantive change, which has a much shorter turn time, allowing for students to be kept on the cutting edge of technology.

After speaking with Ms. Rifredi, the Task Force again turned to General Assembly and Dev Bootcamp for any recommendations for growth in the high technology sector. Similar to their responses towards disclosures, and outcomes; both institutions agreed that more work could be done to increase diversity in the sector.

While it is recognized that the high technology sector currently has low representations amongst women and people of color; it was surprising to see the proactive approaches that these two institutions have taken to help bridge the gap. Both institutions noted that women and people of color only represent approximately 20% of the workforce in the high technology industry (though the San Francisco Bay Area is slightly higher). Both institutions offer scholarship programs for underserved communities, people of color, and women in order to help bring the economic opportunities to a demographic that may not be consistently exposed to the industry. Dev Bootcamp and General Assembly both mentioned the White House's "Tech Hire Initiative", noting that it has helped reinvigorate their desire towards a goal of equal representation in their programs. Both schools noted

that though they have been working towards these goals, much more work needs to be done across the sector.

Employers of graduates also shared their expertise to the Task Force in regards to what steps California can take to help strengthen and expand the high technology workforce. Though each company offers different products and services, all agreed upon the following ideas: the demand for workers in the high technology industry makes it difficult to retain talent; and that a level of communication between employers and schools is necessary.

When speaking to the Task Force in regards to talent retention, it was clear with all three employers struggle to maintain a qualified staff. The three companies stated that it can often be hard to fill positions with qualified candidates due to the constantly evolving nature of the industry. It was noted that the most successful candidates are the ones who can balance the soft skills with the technical skills, noting that graduates from these institutions typically can do this a bit better than other applicants. Another aspect that makes it difficult for smaller startups to retain talent is the poaching of employees by larger firms. Graduates come to startups as entry level web developers, and within a few months they develop more refined skills that appeal to larger companies. In particular, Thoughtbot experienced over 50% turnover in 2014. While dealing with high turnover and the difficulties of finding qualified applicants is frustrating, they noted that this is partially due to the fact that graduates are entering the marketplace with a solid baseline level of knowledge.

When discussing the skills that graduates are entering the workforce with, the three employers made note of the level of communication that they keep with the schools. In particular, Branchbird noted that they provide feedback on the graduates that they hire, as well as those that they don't. All three employers agreed that communication between companies and the schools is necessary if students are to be kept on the cutting edge of technology. All three companies believed that employers are the pulse of the high technology sector, and are the best source of knowledge of what the trends are in the industry. Along with this communication, it was noted that maintaining a high level of selectivity for cohorts will ensure that graduates are kept at their current level of quality, and will prevent a saturation of the talent pool. Given these items, all three employers agreed that there is still a high demand for employees, and that supply cannot keep up.

Insert Recommendation Once Finalized.

Brief Section on the Impact of Changes

Conclusion

Appendix:

[1]*Background Paper for the Bureau for Private Postsecondary Education (Joint Oversight Hearing, April 21, 2014, Senate Committee on Business, Professions and Economic Development, Senate Committee on Education, Assembly Committee on Business, Professions and Consumer Protection and Assembly Committee on Higher Education)*

[2] *Bureau Representatives: Leeza Rifredi – Licensing Chief; Matthew Wiggins – Associate Governmental Program Analyst*
Institution Representatives: Scott Zaloom – Regional Director, General Assembly; Jon Stowe – President, Dev Bootcamp
Former Students: Leslie Forman – General Assembly; Santiago Gomez Lavin – General Assembly; Patrick Reynolds – Dev Bootcamp
Employers: Matt Bendett – Co-Founder, Peerspace; Kim Gerard – Technical Lead, Branchbird; Dan Croak – CEO, Thoughtbot