**Program Summary:** The National Information Security, Geospatial Technologies Consortium (NISGTC) is a three year, $20 million federal grant that was established in 2011 through funding from the US Dept. of Labor. The program offers services to individuals who are seeking short-term training and job placement assistance in four Information Technology (IT) areas: Cybersecurity, Geospatial Technology, Programming and Networking and Data Communications. Services include: virtual labs; IT tutoring; virtual intern/externships; career coaching; targeted employment workshops; IT job fairs and employer panels. In addition to services, curriculum has been created or enhanced with substantial leadership and input from business leaders and employers. Grant funding will end September 30, 2015.

**Vision:** The program vision is to assist TAA and underrepresented participants in gaining IT employment with wages that will support their families. Collin College is the lead agent for a consortium of seven colleges in six states, including Rio Salado College; Bellevue College; Bunker Hill Community College; Salt Lake Community College; Moraine Valley Community College and Del Mar College.

**Planning for End of Grant:** Each college was required to submit responses to a series of questions related to data generated during the grant period; items designated as sustainable in the original grant request; and additional items deemed to be successful and potentially sustainable by individual colleges. Budgets and sources of funding for sustainable items were also requested. These items are listed pending budget approval, unless stated otherwise.

**USAGE OF DATASETS**

Over the course of the DOL grant, each college generated data for reporting purposes. In many cases, additional data were generated, providing colleges with more information to make their cases for sustainability. In response to the question, “How will datasets generated during the course of the grant be utilized in the sustainability planning process?” each college provided a slightly different answer.

**BELLEVUE** stated that attendance reports have been generated for classes offering virtual labs, in order to inform decision makers about usability and attendance. These data have been used as input to a fee-based model that will be proposed to the college Education Services Cabinet. The fee will be required in order to fund maintenance and support agreements for the virtual lab environment. Some of the revenue from the fees may also be used to offset the cost of a technical support employee for the virtual lab.
At **BUNKER HILL**, datasets are important in understanding how students utilize grant-specific opportunities such as the virtual lab, career coaching and employability assistance. It is in part due to the information obtained through continued data collection in these areas throughout the grant, that these items are being considered for sustainment by the college.

At **COLLIN**, datasets have been utilized throughout the grant period for reporting purposes—specifically to track outcomes and ongoing benchmarks. Datasets to be utilized for sustainability planning include: survey data (related to participant and faculty/staff knowledge and satisfaction with grant services) and virtual lab usage reports. Positive evaluations of grant services provide evidence of the value of workshops, coaching and labs to participants.

Additionally, the college has compared specific outcomes for grant participants versus non-participants, and conducted focus groups with students in the grant programs of study. Data from all of these activities has been utilized to back up funding requests for support from the college budget.

At **DEL MAR**, analysis of datasets has been and will continue to be used to assist in the determination of what is to be sustained by Del Mar College once the NISGTC grant ends. This process includes but is not limited to curriculum, content, staff positions, student services, equipment maintenance and implementation, and procedures. Del Mar will validate continued expenses by measuring them against final outcomes and surveys. Items being reviewed are:

- Virtual labs (vm-labs) ArcGIS Remote Desktop and CISCO Systems
- The concept of offering both CEU and college credit IT courses, taught as one while still maintaining robust content and rigorous assessment
- Expanding options to convert CEU to college transfer hours by maintaining strict criteria
- Expanding the impact of hybrid and online course across the economic regions of South Texas and the Coastal Bend
- Further expansion of data usage capabilities by deriving geospatial technology geoprocessing applications using ArcMap and ArcGIS On-Line: i.e. research geocoded socio-economic demographic location analysis
- Expansion of articulation agreements to allow students additional opportunities to pursue expanded academic and career options

According to **MORAINE VALLEY**, datasets have been used during the grant to determine which practices/positions lead to the greatest outcomes. For example, the decision to waive the petition to graduate fee has dramatically increased the number of certificates awarded. Recently the college reviewed these data and determined that this practice should be adopted college-wide. The college has recognized the impact the student success team has had on the IT related programs. As a result, the college has invested in a physical center for student
success to serve the entire college student population. While the leadership does recognize that this is not targeted student success services, the aim is to measure a centralized system to see how it compares.

The administration has also recognized the value of leveraging a virtual environment in order to allow students 24x7 accesses to classroom resource. The virtual environment is to be used in additional courses at the college.

At RIO SALADO, datasets have been used to help determine which aspects of the grant outcomes will be sustained. Examples include: the extensive data on student usage of the virtual labs (v-labs), which helped validate the need for their continuation as well as the full-time Virtual Lab Manager position. Information has also led to discussion and expansion of certain aspects of the equipment, to ensure that hardware is being maximized for student benefit. Data related to student success when working with Success Coaches have led to planning that not only includes sustaining the positions, but also the policies and resource manual that was developed. Student level data on attendance, test scores, and courses have aided Success Coaches in being proactive, through use of intervention strategies that help students enhance the probability of successfully completing educational goals. These data are also used to assess the effectiveness of high touch student services.

At SALT LAKE, the Industry Partners & CBOs Dataset of over 250 employer/community partners and over 150 professional contacts will be maintained by the Geosciences Department Coordinator in combination with the GEOG 2000 (Capstone) Instructor. This will be made available to Career Services; these datasets will be integral to helping students find professional opportunities post-grant.

**SUSTAINABLE LINE ITEMS: STACKABLE CERTIFICATES**

Stackable certificates were listed in the grant proposal as one of the items that colleges would sustain post-grant. Each college has worked to enhance their curriculum and “stack” certificates as a way to help students complete industry certifications, leading directly to employment. Stackable certificates are, in fact, being institutionalized by all consortium colleges along with courses, other certificates and degrees.
BELLEVUE

At Bellevue College, many of these stackable certificates feed into newly introduced Bachelor of Applied Science IT programs. The IBIT Department (Institute of Business and Information Technology) will continue to schedule and host advisory committees that provide input to programs of study, propose new topics and courses, and make recommendations for enhanced content. Input from advisory committees comprised of local business leaders is also considered when credentials and/or course content are proposed to be updated. The Dean, Associate Dean, and relevant Department Chairs are responsible for sustaining Bellevue’s stackable certificate programs and degrees. The planned funding source for maintaining and updating stackable certificates will be the IBIT Department budget. These expenses will include faculty, staff, and any support personnel devoted to updating curriculum and/or degrees.

BUNKER HILL

At Bunker Hill, the college is already invested in maintaining the stackable process for new programs, and existing stackable certificates are self-sustainable at this point. Future programs will be set up as stackable, but as with any new programs, identifying facilities to run them may be a future challenge. At Bunker Hill, both industry and students have expressed a preference for degree programs that are set up in this manner. The college, because of progress under the grant, is beginning to consider this process for non-credit courses as well.

Faculty in the Computer Information Technology (CIT) Department will initiate and build any new stackable programs. While the college does not need to budget funds for these, it is hoping to designate funding for support services to the stackables, such as certificate training review for students preparing to take certification exams. The annual budget for this new cost is estimated to be $1800, and funds would be provided by the CIT Department Annual Unit Plan, Network Operations and Technology Support Services.

COLLIN

At Collin College, it is believed that stackable certificates enable students to find re-employment rapidly, as well as adding to their skill sets. New and enhanced curricula are matched to employers’ needs and have been reviewed by national Business and Industry Leadership Teams (BILTs). Stackables offer flexible program options to support students’ career pathways.

Existing credit certificates at Collin were enhanced through the grant. New certificates were created in the Continuing Education Department, and there is a possibility that additional new
courses and/or equipment may be requested in the future. This certificate curriculum is open
source and will be available through NTER or Skillscommons.org. The planned funding source
for maintaining and updating stackables will be the IT and Continuing Education departments.
This cost will be built into faculty responsibilities; the budget will include personnel for KSA
analysis and gap identification.

DELMAR

At Del Mar College, stackable certificates are now integrated into the standard operation of the
IT Department, and will be sustained through normal recruitment and registration processes.
The planned funding source for maintaining and updating stackables will be the Computer
Science, Engineering & Advanced Technology Department budget. These expenses will include
faculty and staff.

MORAINE VALLEY

Moraine Valley has adopted stackable certificates as department curriculum; they are also a
part of the dual credit programs. The stackable credentials have created multiple “stop out”
points leading to more students exiting the college with an employable credential. Moraine
also reports increased enrollment in dual credit hours. The stackable credentials will be
managed by the CTE program coordinators; the department Dean and faculty will continue to
support the curriculum.

The planned funding source for maintaining and updating stackables will be departmental
funding from general college revenue. These expenses will be built into faculty responsibilities.

RIO SALADO

At Rio Salado College, the stackable certificates (CCLs) and degrees that have been developed
are supported by the Maricopa County Community College District (MCCCD) colleges and
students. IT business and industry partners are also supportive, as these credentials help meet
hiring needs.

This curriculum will continue to be offered following the completion of the grant, based on
student participation and business and industry support. Some curricular elements will be
modified based on data obtained during the grant. In addition, many prior existing CCLs and
AAS degrees, not part of the grant, are being reviewed and converted to stackable format,
given the positive feedback by faculty and students during the grant.
Participating colleges currently fund the grant-related stackable CCL/AAS degree curriculum. Student enrollment generates budget need and college budgets are planned accordingly; colleges’ IT advisory committees support the need for continuation of the programs/degrees with the modifications that have been identified. The planned funding source for maintaining and updating stackables will be the college budgets. These expenses are estimated at $863/teaching load hour or $27.50/hour for full time and adjunct faculty with the average course being the equivalent of three (3) load hours.

**SALT LAKE**

From **Salt Lake Community College’s** perspective, credentials fulfill a need in the field. This has been determined through analyzing labor market information, as well as through contact with local and national BILTs. Certificates have already been approved and implemented college-wide.

There is a three year review for all new credentials. At that time, the Department Coordinator will put together an evaluation plan that will be reviewed by the college and the Board of Regents. Until that time, all aspects of the curriculum and credentials will be managed by the Department Coordinator.

Stackable certificates are embedded in the college-wide curriculum. The planned funding source for maintaining and updating stackables will be the Geosciences Department Base Funding and Lab Fees. These expenses will include staff, supplies, travel, misc. expenses, and equipment. Faculty for the courses within these certificates will continue to be funded through the budget salaries account for each applicable department.

**SUSTAINABLE LINE ITEMS: VIRTUAL LAB EQUIPMENT**

**BELLEVUE**

At **Bellevue College**, both faculty and students find value in the virtual labs (v-labs) and the exposure to technology that they provide. The labs enhance the technical learning experience.

As the grant comes to an end, a proposal to introduce new fees will be reviewed by the college Education Services Cabinet. The fees will be required in order to fund maintenance and support agreements for the virtual lab environment. Revenue from the fees may also be used to offset the salary for a technical support employee for the v-lab. The fee proposal will be presented in spring 2015 so that approvals can be acquired and fees can be introduced in the tuition/fees for
fall 2015. The annual budget for maintenance is estimated at $21,000. The funding source will be from fees that Bellevue College students will pay when enrolling in a course with a virtual lab component. Additional funding will be from 1-3 Washington state colleges that have expressed an interest in a subscription in order to have students from those colleges access the virtual lab.

**BUNKER HILL**

The virtual lab is an invaluable piece of equipment for Bunker Hill to have gained through the grant. The college and CIT Department are already invested in sustaining the virtual lab for the college. Virtual labs have been incorporated in several of the courses in the CIT Department, with more planned for the future.

TSS Network Operations will oversee the maintenance of the virtual lab and will assume budgetary responsibility. Designated funds will be used for the required licensing and maintenance support. This has been added for approval in the annual unit plan for the 2015-2016 academic year. College funding would begin, after the end of the DOL grant on October 1, 2015.

The anticipated annual budget for maintenance and support of the virtual labs is $24,000. The funding source is the Network Operations Annual Unit Plan. This includes NetLabs at $3000 per year (with projected growth rates).

**COLLIN**

**COLLIN’s** rationale for sustaining virtual labs is that students are able to access them 24/7. In addition, virtual labs mirror the real world, give students hands on experience and provide increased online offerings. Coursework and theory do not give students concrete experience; they need the hands on process to help them understand the content they are learning. In addition, participant focus groups held in spring 2015 identified virtual labs as one of the most useful aspects of the NISGTC grant.

Collin plans to maintain virtual labs with three existing part-time staff paid from the Academic Technology and Network Services department budget, who will schedule classes. Hardware support will be provided by the IT department. These staff have already been trained by the DOL Virtual Lab Manager. Annual maintenance costs are estimated at $30,425, and include licensing, maintenance agreements and fees.
**DEL MAR**

*Del Mar* plans to maintain and continue to use the Dell servers and infrastructure in their Computer Science Department, including GIS, Networking and Cisco curricula. The equipment will be formally subsumed by the department in October 2015.

NISGTC staff have reviewed the complete budget expenditure report, and have forecasted server sustainability needs based on this review. A budget and plan has been created that addresses the existing virtual labs, the associated supporting equipment and staffing requirements for setting up classes. The planned funding source for maintaining and updating servers and associated equipment will be the Computer Science, Engineering & Advanced Technology Department budget.

Del Mar College will continue to use the virtual lab equipment purchased by the DOL grant to provide infrastructure to offer courses developed through the grant. Such courses include Linux courses, Information Security courses, Networking courses, and GIS courses. Del Mar has also budgeted for continued software and hardware maintenance agreements to maintain the equipment and software.

**MORAINE VALLEY**

At *Moraine Valley*, current equipment is needed to support the instructional materials developed and adopted as part of the grant deliverables. Current and future students are projected to log thousands of clock hours using the equipment to complete course exercises and labs.

Since the DOL Grant covered the cost of the equipment purchase and the first years of licensing and maintenance, future maintenance costs can be transferred to departmental budgets. The college Information Technology Department will assume responsibility for the maintenance and support of the equipment. The college has committed to hiring a Senior Systems Engineer to maintain the existing equipment and systems, at an estimated annual cost of $80,000 including salary and benefits.

The virtual labs are also used by the Center for Systems Security and Information Assurance (CSSIA), a NSF ATE National Support Center. The labs are used to research new applications and improve student experiential learning. The CSSIA center has an established network of over 250 institutions that leverage the instructional materials developed for this environment.
The staff at CSSIA is also working with Open Minds, a non-profit organization promoting the improvement of Saturday morning children’s programming. The labs may be utilized to enable Saturday morning child viewers to participate in great explorations of careers and related STEM content. These viewers will have the opportunity to experience hands-on experiments related to cybersecurity technologies. They can also earn badges for completing challenges.

**RIO SALADO**

**RIO SALADO** staff believe that the benefit of virtual labs’ current, hands on experience for faculty and students has been incredible; student use of virtual labs has far exceeded expectations and provides better preparation for employment. Enhanced courses have produced increased enrollment, student persistence and student success. A full time Virtual Lab Manager position will be sustained to handle the virtual labs and any issues that arise with faculty and students using the labs. Additionally, this position will oversee and work with the IT Department to maintain the equipment and required maintenance agreements and licenses; provide virtual lab usage data; identify when existing equipment needs updating and when additional equipment is needed.

Action has already occurred to build the necessary agreements/licenses and Virtual Lab Manager position into the 2015-16 college operating budget beginning October 1, 2015. Transition will begin to occur during the latter months of the grant and will be completed by the end of the grant - October 1, 2015. An annual maintenance cost of $11,540 includes 13 separate maintenance/license agreements. In addition, NetLab is estimated to be about $3000/yr in maintenance costs. The annual budget for virtual lab support is $69,500, which includes salary and benefits for one FT lab manager. The college plans to leverage existing funds and perhaps generate dollars through another grant.

**OTHER EQUIPMENT**

**DEL MAR**

**Del Mar** will sustain the use of the Trimble GPS receivers (40 Juno, 4 Nomads and 4 Geo6000) in order to maintain DMC’s new and improved GISC, SRVY courses (GISC 1005/1105, GISC 1302, GISC 1311, GISC 1491, GISC 14921, GISC 2301, GISC 2131, GISC 2435, SRVY 2340, GISC 1191, and ITSC 2286), workshops, and program awards. Also affected are the established certificates and degrees as well as new ones to follow. Maintenance of this equipment and these courses will assist in meeting provisions outlined in new articulations and course substitution.
Sustainability Plan—DOL Consortium

agreements with two & four year institutions now and in the future. Funding in the amount of $1,200-$1750 will be needed for the annual maintenance fees for Trimble’s Terra Sync, Path Finder Office and GPS Corrections. In addition, the ESRI annual maintenance fee is $5,000 for ArcMap, ArcGIS, and ArcPad. The planned source of funding is the Computer Science, Engineering & Advanced Technology Department budget.

SALT LAKE

Salt Lake will maintain use of the DOL virtual labs as part of Salt Lake Community College’s upcoming Cyber Security and Networking programs, along with aspects of the Geospatial Technology program.

The college also plans to maintain their LIDAR scanner, Padzilla, Juno Trimble GPS Units and Plotter. This equipment is utilized to stay up to date with the technology of the GIS career field. Need for these items is supported through recommendations of the BILTs, national employment trends, and professional organizations.

The LIDAR scanner, Padzilla, Juno Trimble GPS Units and Plotter will be managed by the Geosciences Department Coordinator. The Padzilla, GPS Unites and Plotter require no annual maintenance fee. LIDAR requires a yearly software subscription fee, at a cost of $650 per seat. Six seats will be maintained each year.

IT TUTORING

BELLEVUE

The tutors currently hired to provide services at Bellevue for the DOL grant programs of study will not be sustained. Instead, students requesting a tutor will adhere to existing policies and upon recommendation of their instructors, can request a tutor through the Bellevue College Academic Success Center. This department employs as many as 200 part-time tutors during the quarter. Requests for tutors will be assigned as needed.

BUNKER HILL

Though Bunker Hill already has tutoring in place for several entry level CIT courses, feedback from tutors and faculty indicates that having specialized IT tutors is helpful for the students seeking fast track certificates. This is especially true for higher level courses.
Funds will need to be identified for an IT faculty point of contact for the tutors. Bunker Hill plans to maintain two tutors, at an annual cost of $1000. This cost will be absorbed into the college’s Annual Unit Plan for Tutoring. The plan will include two tutors at $10.00 per hour, at 50 hours per year. The cost of faculty will be incorporated into the Bunker Hill budget.

**Collin**

At Collin, grant-funded IT tutors have helped students in their coursework and assisted in retention. The tutors are stable and reliable, and the tutoring den provides a comfortable place to seek assistance. Over the course of the fall 2014 semester, there were more than 500 student tutoring sessions.

A survey sent to program participants who use tutoring shows that they value the services they’re receiving and feel that they are more successful because of this assistance. Faculty, Deans and the campus Provost are supportive of continuing IT tutor services.

Two tutors would be based on the Preston Ridge campus. The anticipated cost of maintaining these positions for 20 hours/week and 40 weeks would be $28,800. The cost would be absorbed by the STEM and Business and Computer Science departments.

**Del Mar**

The Computer Science., Engineering & Advanced Technology Department will not be funding an IT tutoring program, because Del Mar College has a number of existing tutorial lab programs via the college’s Student Success Center (SSC). The SSC provides peer tutoring, success workshops, supplemental instruction and technology resources.

**Moraine Valley**

Moraine Valley has a tutoring department for student support. These student services are provided college-wide, but will not be as accessible to students served in the current programs. Some internal advising will be offered through the IT department. The students in the Computer Integrated Technology department programs have greatly benefited by a highly structured tutoring program. Students have become custom to using the web-based tutoring calendar to schedule appointments with program tutors. The department will continue to use the tutor schedule to enable students to schedule time with the remaining program tutors.
**Sustainability Plan—DOL Consortium**

**RIO SALADO**

*Rio Salado* believes that tutors lead to increased retention of students, which in turn leads to successful completion of Certificates/AAS degrees. Support for this view is provided through data on number of students served, number of hours spent tutoring, content tutored, number of students retained, and faculty and student feedback.

Each Rio Salado affiliate college in the Maricopa system has utilized its own process for the management of tutoring over the course of the grant. These processes will be continued following the end of the grant, October 1, 2015. The budget needed to cover tutor costs determined by each college as is the number of tutoring hours available. In addition, the hourly rate is determined by each college based on tutor education requirements and level of tutoring being offered. Services are being institutionalized by the colleges, and each college will pay for the tutoring services needed, based on enrollment.

**SALT LAKE**

*Salt Lake* references substantial research and data that support the need for and value of tutoring for student retention and success. As of January 2015, Salt Lake has tracked all grant participants who use the Geosciences Tutoring Center and has tracked 311 in-person visits (this number includes participants only, many un-tracked non-participants also use the service). This equates to 6 participant uses per week. While the college cannot justify maintaining all of their tutors, they can justify maintaining a portion of them in the Science Resource Center (1-2).

Funding has already been attained for this item at Salt Lake. After the DOL grant ends, tutoring efforts will be managed and maintained by the newly funded Science Resource Center (SRC), which is part of the School of Science, Math and Engineering. The coordinator of the SRC will manage all aspects of tutoring with input from the department. The annual budget for tutors (all science disciplines) is $35,000; the source of funding is the Science Resource Center. This funding will support 1-2 part time geosciences tutors for a total of 10-20 hours per week each.

**SUSTAINABLE LINE ITEMS: CAREER COACHING**

**BELLEVUE**

At *Bellevue*, dedicated Career Coaches for IBIT students will not be sustained. There is no funding proposed to retain this staff. However, BC does have a Career Center with 7-9 FTEs. A
formal internal transition plan will be documented to ensure that grant students are aware of the services provided by the Career Center, which include:

- Career Pathways in IT (and other subject areas)
- Academic Internships
- Workshops on Resume and Interviewing Strategies
- Workshops on Networking and the Hidden Job Market
- Mock Interview Sessions
- Using Social Media to Find a Job
- Job Search for Immigrants
- Workshops on Salary Negotiation
- Workshops on Cover Letter Strategies

Funds to support Career Center staff are currently provided by the college.

**BUNKER HILL**

At Bunker Hill, Career Coaches have been instrumental in connecting to students, regarding both their academic and career goals. The Career Coach position has been integral in helping students identify important milestones such as certificate achievement, how to apply for graduation, how to update resumes with relevant learned skills, how to research companies and secure interviews and how to stay connected to faculty. The College will not assume the Career Coach position, but will sustain the concept of career coaching. The President will incorporate career coaching college-wide, but not necessarily upon completion of the DOL grant.

**COLLIN**

At Collin, Career Coaches and Job Developers contribute to student retention and completion, as well as providing employment assistance for program graduates. Collin administrators are already convinced of the importance of sustaining Career Coaches. There has been substantial positive feedback from students, faculty and employer partners regarding the success of coaching activities. A budget request was approved in August 2015 that includes three FT Career Coaches. These positions would be under the Senior Vice President of Workforce and Enrollment Services.
**Sustainability Plan—DOL Consortium**

**DEL MAR**

At Del Mar College the Computer Science, Engineering & Advanced Technology Department has proposed a plan to budget and fund a Career Coach and/or Department Career and Academic Counselor part-time or full time starting during the 2015-2016 school year.

**MORAINE VALLEY**

Moraine Valley has recognized the impact the student success team has had on IT related programs. As a result, the college has invested in a physical center for student success to serve the entire college student population. While the leadership does recognize that this is not targeted student success services, the aim is to measure a centralized system to see how it compares.

The Student Success Team at Moraine is working with other departments around campus to transition contacts and services. For example, the Employment Engagement Specialist is assisting area employers in developing a relationship with the college’s Job Resource Center so that these employer relationships can continue to be mutually beneficial to students and to the employers long after the grant has ended. Furthermore, the faculty will maintain the relationship with the Illinois Technology Foundation and with the employer network built by the grant as these relationships have been extremely beneficial to student employment success.

**RIO SALADO**

Rio Salado sees increased retention of students and successful completion of the certificate (CCL)/degree as a strong rationale for keeping Success Coaches (SC) employed by the colleges. Rio cites the intervention of Success Coaches and their positive influence on student completion, along with direct feedback from faculty and students. They also utilize Institutional Research enrollment data.

Post-grant, Success Coaches will be managed by the college/sites to which they are assigned. The hiring process will be implemented during the latter months of the grant, with the college SC positions going into effect following the end of the grant, October 1, 2015. The final decision will be dependent on the amount of budget money available for the 2015-16 academic year. Salary and benefit cost for three Success Coaches is projected to be $189,819 annually. If the colleges are able to expand to six coaches, salary and benefits would total $379,638. The cost of coaches would be supported by individual colleges within the system.
SALT LAKE

Salt Lake has not seen a need from students to sustain a geosciences specific Career Coach. The College has in operation an existing Department of Career Services for its students. The NISGTC has helped Career Services to become more aware of the professional needs of students in the geosciences while at the same time encouraging them to increase their focus on locating professional opportunities for them. As the grant comes to a close, the geosciences department will begin handing students off to this department in order for them to get the assistance they need in locating professional opportunities and applying for them. The department will continue working with SLCC Career Services to strengthen the interdepartmental partnership while providing them with professional opportunities for students in the geosciences.

ADDITIONAL SUSTAINABLE ITEMS IDENTIFIED BY COLLEGE

Each college was asked to identify plans for sustaining Business and Industry Leadership Teams, workshops and outreach activities and internal/external relationships. These are all items that were built or expanded through the DOL grant, and were generally regarded as successful over the past three years.

BELLEVUE

- **BILT**: The IBIT Department has several Advisory Committees comprised of local business leaders. These committees will continue to meet to advise and provide Subject Matter Expert (SME) expertise for existing Programs of Study, new BAS degrees, and new initiatives. Responsibility for the Advisory Committees resides with the Associate Dean as well as individual department chairs.

- **Workshops/outreach**: Current DOL grant-sponsored career panels, mock interviews, networking sessions, and hands-on-labs will not be sustained by the college or IBIT Department, unless specific efforts are made by IBIT faculty and staff to do so. Such efforts are currently out-of-scope.

- **Relationships with internal/external partners** currently include: a Latino CBO (Community Based Organization, WIOA (Workforce Innovation and Opportunity Act) partners in Snohomish and King Counties, Year Up (a national CBO with a local office), and multiple local employers. Before the grant expires, all contacts will be documented and the list of contacts, along with email addresses, etc. will be provided to the Dean and Assistant Dean of IBIT, as well as to the Director of the Career Center and relevant staff. There are many other college staff members who will continue to work with and support the YearUp CBO, as well as their students.
**BUNKER HILL**

- **BILT:** The CIT department has connections with industry, depending on the topic area. These industry partners will continue to be consulted as needed in each specific curricular area.

- **Workshops/outreach:** Outreach workshops, called Tech Tuesdays, will be continued. They will focus on several topics, including changes in the IT industry, stackable programs, new developments in IT and any other topics viewed as relevant to IT programs or employment opportunities.

- **Relationships with internal/external partners:** The CIT Department has developed a strong working relationship with partners from IBM, Marlin Mobile and Microsoft. These partners have continued working with the college through new programs developed outside of the DOL grant.

- **Community-based organization outreach:** The DOL grant enabled the IT department to continue working with CBOs in the surrounding areas of the college, to encourage their participation in certificate and degree programs. The department has had long standing relationships with the CBOs and is seeking ways to maintain them. At this time, there is no plan in place for the college to assume the cost of maintaining these relationships.

- **Employment Outreach Coordinator:** The department is seeking $67,000 to sustain this position in the AUP plan, though this position may be moved over to TAACCCT III funding.

- **CIT Lab Technician** – The Net Ops Department and CIT (Network Operations) is seeking $40,000 to sustain one position for both areas. They will share this expense if these funds are approved.

**COLLIN**

- **BILT:** The networking BILT will continue through the Convergence Technology Center. Individual members of other BILTs may be asked to continue in other roles at Collin, or through the CTC. BILT has garnered a lot of interest nationally, as a way to make course content fit business needs.

- **Workshops/outreach:** Workshops and outreach to students would be continued through Career Coaches as they move into other departments within the college. Faculty and staff were surveyed about services provided by coaches; responses were very positive. Students routinely send thank you emails crediting coaches and workshops with their success. There would not be a cost associated with workshops, other than staff salaries of those needed to organize them (see Career Coach section).
As an alternative, workshops could be added to the service menu provided by Student Advising at Collin.

- **Relationships with internal/external partners:** Some employers will be invited to join the CTC BILT. In addition to BILT members, it is expected that Collin will retain its relationships with other employers, Workforce offices, and VA representatives. Contact information will be transferred as appropriate to the academic advising office, Veterans services, and Provost of Collin’s Preston Ridge Campus.

**DEL MAR**

- **IAB:** The Computer Science, Engineering & Advanced Technology Department has several existing regional Industry Advisory Boards (IAB) comprised of local business, government leaders and subject matter experts (SME). These committees will continue to meet to advise and provide subject matter expert (SME) expertise for new and existing Programs of Study, Networking, Cyber Security, Programming, Geographic Information Systems (GIS) and Surveying (SRVY). DMC is especially interested in the expanded realm of Geospatial Technology (GST): in new innovative applications in the area of Global Network Satellite Systems (GNSS), Global Positioning Systems (GPS), Geospatial Intelligence (GEOINT) and Unmanned Aircraft Systems (UAS). DMC is planning for expansion of existing awards, certificates and degrees, as well as new initiatives in course content development that will meet regional economic forecasts. Responsibility for these IABs resides with the Department chair as well as individual faculty responsible for selected programs.

- **BILT:** The Computer Science, Engineering & Advanced Technology Department intends to maintain its network of national BILTs in the areas of GIS, Cybersecurity, Networking and Programming. DMC believes that this is a vital and necessary network of national advisement and industry forecasting through cooperation and collaboration. Responsibility for these committees will reside with Department chairs as well as individual faculty responsible for selected programs.

- **CEU + CTH:** DMC will expand the linkage between Continuing Education courses and workshops through college transfer hour courses and curriculum. This process will maintain rigor and adhere to strict criteria and conversion policies.

- **Workshops/outreach:** The Computer Science, Engineering & Advanced Technology Department will maintain across-campus connections with all manner of student services to address career and academic needs (Title V HIS STEM Grant, SUCCESS Center, Harvin Student Center etc.). When possible, these efforts will include public events (presentations, demonstrations, booths); hosting of workshops; and participation
in radio/TV talk shows. The college Public Relations and Media Services Offices will be involved in planning and execution.

- **Relationships with internal/external partners:** DMC will maintain and expand partnerships and collaborations across existing programs through BILTs, IABs, events, workshops, and SME mentoring (internships and capstone projects). Event collaboration can include but is not limited to GIS Day, Skills USA, Earth Day, etc.). Faculty and students will be prompted to continue, initiate and maintain relationships and networking with professional associations, groups, and organizations including the following:
  
  - National Institute for Women in Trades, Technology and Science (IWITTS)
  - South Central Arc Users Group (SCAUG)
  - Rio Grande Valley Arc Users Group (RGVAUG)
  - Coastal Bend GIS Users Group (CBGISUG)
  - Urban and Regional Information Systems Association (URISA & URISA Texas)
  - Geographic Information Technology Association (GITA)
  - ESRI GeoMentors
  - ESRI EdCommunity
  - American Association of Geographers (AAG)
  - Geographic Information Science Student Organization (GISSO)
  - Texas Society of Professional Surveyors (TSPS)
  - Information Technology Management Association (ITMA)
  - Association of Information Technology Professionals (AITP)
  - Association of University Technology Managers (AUTM)
  - Texas Association of Government Information Technology Management (TAGITM)
  - Information Security Association (ISSA)
  - National Initiative for CyberSecurity Careers and Studies (NICCS)
  - International Information Systems Security Certification Consortium (IISSCC)
  - International Society for Technology in Education (ISTE)

- **Across Campus Collaboration & Cooperation:** DMC will include technology applications across multiple subject areas and occupations. Example: GIS & GST applications applied to GEOL, GEOG, SRVY, ENGR, BIOL, BUSI, and Construction Trades.

- **Articulation & Course Substitution Agreements:** The college will build, maintain and expand agreements between DMC and two and four year institutions statewide.
MORaine VALley

- The LAN-101 course “Orientation to IT Careers” has gained a great deal of national attention. The Cisco Networking Academy staff has partnered with faculty and staff at Moraine Valley to package this course and leverage the Cisco Networking Academy Network to disseminate this course nationwide through their curriculum portal. This has the potential of reaching thousands of additional students interested in career in the IT sector.
- The staff and faculty at Moraine Valley Community College has had an institutional initiative to decrease student textbook cost. As a result of the new curriculum development under the NISGTC grant, several hundred students each year will be able to reduce the cost of textbooks by utilizing the new web-based curriculum.

RIO SALADO

- **Fast-Track Curriculum Process:** Rio created an expedited review and approval process for grant-related programs that were initiated as a result of the TAACCCT grant award. It allows colleges to create new courses, programs and degrees in a compressed implementation cycle to accommodate grant timelines. The Maricopa County Community College District (MCCCD) colleges have received TAACCCT grant awards in Rounds 1, 2, 3, & 4, along with other grants. This new process is needed to assure curriculum developed can be offered as soon as possible following grant requirements. No additional cost will be incurred as a result of the new process. It has been institutionalized to support grants awarded to MCCCD and its ten colleges. The process is managed by the MCCCD Center for Curriculum & Articulation.
- **TAACCCT-NISGTC Advisory Council:** The Council was created for business and industry partners to actively participate in supporting the grant, assisting with program development and providing insight to ensure that curriculum developed would meet hiring needs and assist in helping grant participant completers have advance notice of job opportunities. Partnering with business and industry is vital to the success of the programs being offered, as is the chance for completers to have an early opportunity to compete for available jobs.

The stackable educational programs must meet employer needs now and in the future if completers are to be able to enter the workforce quickly, perform competently, meet industry standards, hold industry recognized credentials, and do so in a professional manner.
Rio Salado is moving forward with the MCCCD Department of Workforce Development, a division of Academic and Student Affairs, in support of the “One Maricopa” initiative, to join the TAACCCT-NISGTC Advisory Council with existing IT advisory groups to form a single MCCCD IT Council. This will provide a collaborative environment for business and industry representatives and allow for greater coordination and meaning for those participating. It will create a stronger team and provide greater value to the entire MCCCD system and the students it serves. The Council will be funded through the reallocation of existing dollars.

The “One Maricopa” Council will be transitioned to and coordinated by the MCCCD Workforce Development Department working with the ten Maricopa colleges to assure that IT business and industry representation occurs from all areas of Maricopa County. This will begin sometime during the 2015-16 academic year. This modification will be part of the “One Maricopa” initiative that is being led by the Chancellor.

**SALT LAKE**

- **BILT:** Salt Lake will continue to build and utilize the local BILT (Program Advisory Committees). This will be the responsibility of the Department Coordinator. Outreach will continue but on a smaller level; the costs associated with this are already included in the departmental budget. Partnerships will be maintained. As it stands, this will be maintained by the coordinator; although, staff are presenting evidence for this to be expanded to the Subject Matter Experts as a whole. If approved, it is unknown at this time how that will be managed and who will be responsible for that task.

- **National GeoTech Center for Excellence:** SLCC will continue to maintain a strong external partnership with this organization.

- **Relationships with Internal/External Partners:** Salt Lake will continue to work with partners developed throughout the NISGTC grant by including these partners in our local program advisory committees and amongst our adjunct faculty.

**BUDGET PROCESSES**

**BELLEVUE:** Each spring, the IBIT Faculty, Department Chairs, and the Associate Dean submit budget requests for new initiatives and/or programs to the Dean. The Dean evaluates and prioritizes proposals and recommends those identified as high priorities to a committee of college executives and deans. This committee evaluates all college proposals, and makes recommendations to fund those that are determined most critical for the college to introduce or sustain. In addition, the input from advisory committees comprised of local business leaders is also considered when credentials and/or course content is proposed to be updated. Finally,
the newly authored College Strategic Plan is another element that is considered during the annual initiative funding prioritization process.

**BUNKER:** All requests for funds towards an item listed in the annual unit plan must be outlined by the department chair. IT specific requests are reviewed by the IT Committee. The executive staff will review the plan and it is then approved by the President. The President has the authority to approve the budget line by line or in total.

**COLLIN:** The budget process begins by initially developing and distributing base allocations to each of the college President’s direct reports (Leadership Team). The Leadership Team subsequently reviews and distributes their respective budget allocations to their cost center managers. Each manager has the opportunity to reallocate their funds among their cost centers to meet the changing goals and achievement indicators of the District. Departments submit budget worksheets and supplemental budget requests in May. Cost center managers present their initial budget drafts at hearings in June. The Collin College Board of Trustees review occurs in July, and the final approval process is in August. The budget for sustaining DOL items will be presented by the VP/ Provost of the Preston Ridge campus.

**DEL MAR:** At Del Mar College, budget requests are initiated by the appropriate Department chair, approved by the Dean and forwarded to Del Mar College Information Technology Department.

**MORAINE:** Moraine Valley has work with Collin County over the years partnering to provide faculty workshops, conferences and other national initiatives as part of the CSSIA NSF ATE center. We have discusses the continuation of the National BILT as part of the NSF ATE center operations. Moraine Valley also has several faculty that participate in other national advisory roles including NIST NICE and the Cisco Networking Academy national advisory team.

The Moraine Valley Leadership plans on institutionalizing the cost to maintain the Pearson Vue testing center. The leadership, staff and faculty at Moraine Valley continue to pursue grant opportunities and business sponsorships to sustain initiatives that lead to increasing student employability and workplace skills.

**RIO:** Budgets are handled by each college individually, with the Department Chair working with the VP for Academic Services/Occupational Education, and responsible Dean of Instruction who, in turn, provides the budget requests to the VP, Administrative Services for review and consideration followed by approval of the President. Some colleges also have budget committees as part of the process. College budget processes are ongoing from November/December – May when they are submitted to the Governing Board for approval.
SALT LAKE: Throughout the year, strategic councils host open forums in which themes, goals and objectives are reviewed. During the fall semester (August through December), Departments identify budget requests to either 1) support and enhance existing operations, or 2) advance strategic focus areas/goals/core theme objectives. Requests are forwarded to Directors, Deans and Assistant Vice Presidents for prioritization and the prioritized list is sent on to the VP/Provost for funding consideration. Over the spring semester, the VP/Provost reviews and prioritizes requests and sends them to the IBP Committee for analysis. Executive Cabinet budget discussions are held to identify funds to support types of requests and select which strategic projects to advance and fund for the current year and special requests. Vice Presidents and the Provost select projects and send them to the budget office, and information is presented to the Senior Leadership Council and shared with the college. The Budget Office prepares the budget, forms and reports and the new budget is published.

CONCLUSION:
The DOL sustainability process required flexibility due to the differences among Consortium colleges in timelines, internal planning processes and staff/budget concerns. Depending on what occurred during the budget process at each college, individual plans were altered. Overall, Consortium members were committed to sustaining vital portions of the DOL grant, and made an effort to develop internal collaborations among college departments that would allow services to students to be as unaffected as possible by the eventual end of grant funding.