SOUTHWEST CENTER FOR ENVIRONMENTAL EXCELLENCE AND OPPORTUNITY

FINAL REPORT
For
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Albuquerque Technical Vocational Institute
South Valley Campus

Date:
November 9, 1998
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Southwest Center for Environmental Excellence and Opportunity
Year End Report (Final Deliverable)

Summary

The Southwest Center for Environmental Excellence and Opportunity (Southwest CEEO) has been in existence since October 1996 at Albuquerque Technical Vocational Institute’s (TVI) South Valley Campus. The Special Project was comprised of three objectives:

1. Increasing the number of Hispanics in careers related to the environment by improving education and job training opportunities;
2. Strengthening the infrastructure of Hispanic businesses and building their capacity to participate in environmental clean-up activities and potential technology commercialization;
3. Increasing the Hispanic community’s understanding of and participation in environmental protection through improved access to information and outreach activities, paying attention to cultural and linguistic issues.

The Southwest CEEO has been successful in each of the above objective areas and continues to provide valuable services to TVI and the community.

The Southwest CEEO has developed a scholarship/mentorship program involving business and industry, community organizations, and TVI faculty that will be replicated by other student mentorship programs. The Southwest CEEO has awarded approximately $50,000 over the two-year program funded by the U.S. Department of Energy Oakland Operations office. The Southwest CEEO has also developed a K-12 partnership with Albuquerque Public Schools (APS) to enhance environmental education for students and professional development for teachers. Incorporated into these student activities are experiential learning opportunities and curriculum development and/or enhancement.

The Southwest CEEO has worked closely with the TVI Small Business Development Center (SBDC) to support Hispanic businesses in technology partnership activities. The Southwest CEEO in partnership the TVI SBDC has provided a large business forum and business workshops. In addition, the Southwest CEEO has developed a Technology Transfer Model that will be expanded in the future to a technology transfer guide to be used by New Mexico SBDC's.

The Southwest CEEO has been active in the Albuquerque South Valley Community and Bernalillo County to promote more Hispanic community participation in environmental issues and education opportunities. The Southwest CEEO has hosted community environmental forums, workshops, and conferences. The Southwest CEEO is also participating on the Bernalillo County Environmental Health Department Technology Deployment Initiative Advisory committee, Hispanic Statement of Cooperation Group, and the Groundwater Protection and Action Plan (GPAP) Committee.
Southwest CEEO Project Team

Charles M. Sánchez, Project Manager
Martin De La Garza, Assistant Project Manager
Minerva Muñiz, Administrative Support Specialist
Willie Johnson, Student Research Aide
Anna Alderete, Student Research Aide
Carolina L’Esperance, Student Research Aide

Funding Source and Project Period

U.S. Department of Energy Oakland Operations Office
Project Period - August 1997 to October 31, 1998

Mission, Beliefs, and Goals

Mission – The Southwest CEEO provides support and opportunities to the community, students and businesses to participate in environmental education, management, technology, and communication activities. The Southwest CEEO is developing and supporting innovative partnerships to accomplish its goals.

Beliefs – The Southwest CEEO believes that collaboration among educational institutions, government, private business, and the community will improve education, economic development, and employment opportunities for all people using an environmental focus.

Goals – The three primary goals of the Southwest CEEO include: (1) increasing the number of Hispanics in careers related to the environment by improving education and job training opportunities; (2) strengthening the infrastructure of Hispanic businesses and building their capacity to participate in performing technology transfer; and (3) increasing the understanding of and participation in environmental issues through improved access to information and outreach activities, paying attention to cultural and linguistic issues.

Strategy

The Southwest CEEO conducted activities under three components to implement activities and projects: a student/academic component, a business component, and a community partnership component. The three components were intended to have a comprehensive approach to the mission of providing support and opportunities to students, businesses, teachers, faculty, and the community. The components were interactive with one another to meet the Southwest CEEO goals.
Student/Academic Component

Scholarship/Mentorship Program – Approximately $50,000 in scholarships has been awarded to 35 TVI students including five $1,000 transfer scholarships. As part of the scholarship program, students were required to attend a Friday mentorship program. The mentorship program included field trips, environmental career awareness, cultural discussions, professional development, and mentorship to students. Approximately 20 professionals from private industry, government, and community groups participated as mentors to TVI students. The students were from various academic programs at TVI including Environmental Technology, Liberal Arts, Pre-Engineering, Manufacturing Technology, Accounting, Computer Animation, Business Administration, Pre-Management, Administrative Assistant, and Design Drafting Engineering Technology. Environmental issues and career awareness can be applied to any academic discipline in a formal or non-formal setting. The students participating in the scholarship/mentorship program had an 86% retention rate with many still attending TVI, some who have graduated and are working, some who have transferred to four-year institutions, and others who have left TVI for various reasons. The majority of the students have maintained or improved their grade-point-averages while they were scholarship recipients. A student dinner banquet was held in July 1998 to recognize the students and mentors for this project.

Experiential Learning – The Southwest CEEO identified several projects for Environmental Technology students to participate in for experiential learning. TVI students participated in viewing a new technology demonstration for detecting underground storage tanks. Students also participated in the removal of the underground storage tanks and assisted in environmental sampling along Isleta Boulevard. Students also attended business forums and workshops for environmental technology. These activities were coordinated with the TVI Environmental Technology instructors.

TVI Student Activities – The Southwest CEEO has sponsored several cultural activities and events for the Association of Latin American Students (ALAS) including supporting 10 students to attend a National Diversity Conference in San Diego, California in May 1998 and supporting 4 students to attend a Hispanic conference in September 1998. The Southwest CEEO has also sponsored and organized 2 student job fairs inviting environmental firms, government agencies, and other high tech employers. Approximately 20 employers and 300 TVI students have participated in the job fairs.

High School Outreach – The Southwest CEEO organized and implemented the “Science Along the Rio Grande” Project at Rio Grande High School during the Spring 1998 term. Six teachers were provided a one-day professional development workshop in environmental areas such as lead poisoning prevention, water issues, environmental justice, and environmental careers. Through the six teachers approximately 150 high school students participated in classroom activities, field trips, TVI tours, speaker presentations, and career awareness activities.
This initial project lead to two summer 1998 programs. During July 1998, 15 high school students who were juniors, seniors, or recent graduates participated in a summer high school environmental institute. TVI students exposed the students to environmental issues and careers, hands-on activities and Internet use, professional development activities, and mentorship. The students were each paid a $500 stipend to participate in this pilot project. Of the six high school graduates, five of them are enrolled at TVI and taking class during the fall 1998 term. The remaining high school students intend on attending TVI after high school graduation. The second summer program was a summer high school teacher professional development program. Five teachers including a special education teacher, science teacher, English teacher, English/French teacher, and a history teacher participated. The five-day summer program required the teachers to develop environmental curriculum to be used in their classrooms during the 1998-99 academic year. Each teacher was paid a $500 stipend to participate in this pilot program.

Another Rio Grande High School project included providing a one-day in-service for approximately 150 staff at the TVI South Valley Campus. The entire staff was rotated through hands-on presentations of all the TVI programs and resources.

Middle School Outreach – The Southwest CEEO has supported activities at each of the 3 middle schools within the Rio Grande High Cluster. Primarily, students have participated in tours of the TVI South Valley Campus including Internet search activities and exposure to TVI programs. In addition, the Southwest CEEO has participated in career fairs and judging science competitions at the middle school level.

The Southwest CEEO also supported the building and dedication of a greenhouse at Washington Middle School, a middle school in the Albuquerque High School Cluster. The project was a collaborative effort between the TVI Service-Learning program and the middle school. TVI students and faculty in the carpentry, environmental sciences, and biology programs worked with science and shop class teachers and students at Washington Middle School in the building of the greenhouse and development of a community garden.

Elementary School Outreach – The Southwest CEEO has been one of the planning and implementation programs to expand and enhance the Kids’ College program. Kids’ College is a summer program for 4th and 5th grade students in a learning community for students and teachers integrating literacy, science, mathematics, technology and other appropriate learning areas. The Southwest CEEO has provided professional development activities for the participating teachers and hands-on environmental activities for the students over the past two summers. The Southwest CEEO is currently implementing an “Environmental Sciences Friday Academy” during the fall 1998 term in cooperation with 3 elementary school teachers. Approximately 90 5th grade students are participating in this program. The teachers, through professional development, are exposed to environmental principles as it relates to real world applications that can then be incorporated into the classroom activities. The theme for the Friday Academy is water that will cover the water cycle, water conservation, water recycling, and water quality. At the end of the term, teams consisting of four students each will present their work and
research to parents and the community on one of the four water topic areas. The Southwest CEEO has also supported other elementary schools through environmental career awareness and environmental presentations to students.

The connection among all levels of education and the community provides a comprehensive approach to increasing environmental awareness and educational opportunities for all. By involving parents, businesses, government, community groups, educational institutions, and the community, we can deliver education in a more contextual manner where all of us can see the relevance of our education.

_Business Component_

Business Forums - The Southwest CEEO has hosted one large business forum during November 1997 titled "Tying Technology into Your Business" in cooperation with the TVI Small Business Development Center and Sandia National Laboratory. The business forum attracted 150 individuals from private environmental businesses. Topics discussed included technology transfer opportunities, small business assistance, small business successes, and contracting opportunities. A second technology business forum is planned for December 1998.

Business Workshops - The Southwest CEEO has hosted and organized several business workshops as small business assistance and business growth opportunities. Workshops have included topics such as: water flow metering instrumentation, de-nitrification of groundwater, and technology demonstrations. The water flow metering instrumentation workshop was conducted to train small businesses to use the equipment and partner for commercialization opportunities. A small, Hispanic-owned business has contracted with the developers of the equipment.

Technology Transfer Model - The Southwest CEEO is developing a technology transfer model for use by small businesses. The TVI Small Business Development Center is cooperating in this effort. The model is a tool to assist small businesses with technology transfer mechanisms to strengthen their businesses while creating a consortium of small businesses to assist in this process. Small businesses usually do not have an opportunity to participate in technology transfer. The model is the foundation for developing a technology transfer guide to be supported by Sandia National Laboratory and used by the New Mexico Small Business Development Center's across the state.

Minority Business Database - The Southwest CEEO is completing a small business database on environmentally-related businesses. The business database is to be used by the TVI Small Business Development Center for potential workshops and training opportunities. It is also being used by Sandia National Laboratory to register companies on their supplier/contractor databases. The Southwest CEEO also works with these businesses to find employees as mentors to TVI and K-12 students. These businesses also participate in various projects and activities of the Southwest CEEO.
Community Partnership Component

Community Forums - The Southwest CEEO has hosted or co-hosted community forums related to environmental issues. They include the following:

- Brownfield’s Conference - the Brownfield’s initiative is focused on economic redevelopment of areas environmentally contaminated or perceived to be contaminated. This national initiative involves city, county, state, and federal entities to implement. The Southwest CEEO co-hosted this event with the Albuquerque San Jose Community Awareness Council in September 1998.

- Water Rights Workshops - the Southwest CEEO has hosted two water rights workshops in cooperation with the Rio Grande Community Development Corporation. Each workshop attracted 30-40 community members primarily from the South Valley. Representative from the county and state presented on individual water rights and the process for applying for water rights.

- Environmental Justice Workshops - the Southwest CEEO hosted an environmental justice workshops for the community regarding a new power plant to be built in the South Broadway area of Albuquerque. Community members were able to discuss their environmental concerns with the private industry intending to build the plant.

Scholarship/Cooperative Education Partnership - the Southwest CEEO established a scholarship/cooperative education program with the City of Albuquerque Environmental Health Department. Through air violation fines, the City established a scholarship fund where the student recipient is required to do cooperative education in the Air Quality Division. The initial scholarship fund is $5,000.

Hispanic Statement of Cooperation - the Southwest CEEO coordinated with former President Alex Sanchez and current Interim President Michael Glennon to have TVI participate in this statement. There are many Albuquerque entities participating in this statement looking at impacting areas such as education, economic development, employment and cultural celebration.

Technology Deployment Initiative - the Southwest CEEO Project Manager is a member of the Bernalillo County Environmental Health Technology Deployment Initiative advisory committee. This committee works on using DOE developed technology and applying it to real life environmental problems within Bernalillo County. This is an opportunity for students, faculty, and businesses to participate in new environmental technology opportunities.

Groundwater Protection and Action Plan Committee (GPAP) - the Southwest CEEO Project Manager is a member of the Bernalillo County Groundwater Protection and Action Plan Committee to look at protecting our groundwater resources in the county. The first meeting is November 1998.
Future Goals

The Southwest CEEO is continuing the environmental school-to-careers program for the K-16 levels and providing community service and experiential learning as part of the TVI Special Projects programs. Specifically, future activities include the following:

- Regional High School environmental school-to-careers activities with Rio Grande High School, West Mesa High School, Albuquerque High School, Los Lunas High School, Belen High School, and potentially Bernalillo High School
- Kids’ College Environmental Sciences Friday Academy with Barcelona Elementary School and an additional elementary school in Spring 1999
- Professional Development for K-12 teachers in the environmental sciences
- In-Service Days for middle school and high school staff for exposure to TVI programs through partnership with the four TVI campuses
- Expanding business and community partnerships to support the school-to-careers programs
- Expanding educational partnership at the K-12 level, community college level and university level
- Identifying and creating experiential learning opportunities for students, teachers, and faculty
- Representing TVI in community outreach activities including the Hispanic Statement of Cooperation
- Participating and implementing special projects at TVI and in the community such as the greenhouse development at the TVI Main Campus and future plans for a larger greenhouse at the TVI South Valley Campus
- Pursuing funding and resources to support the TVI mission
- Evaluating and sustaining programs and efforts at TVI and in the community

Conclusion

The TVI Southwest CEEO will continue to promote and provide higher education and skill development within the district, the state of New Mexico, and regionally. The Southwest CEEO will encourage and support students, faculty, and the community by offering educational opportunities. The Southwest CEEO will use environmental education as a tool to respond quickly to community needs, support faculty and staff, and foster communication and partnerships. The Southwest CEEO will continue to perform its duties with quality, respect, ethics, and accountability.

A collaborative and multi-discipline approach for K-16 education settings is working for the environmental school-to-careers program at TVI Community College through the Southwest CEEO. It is the partnership and responsibility of all stakeholders to sustain our communities. In order to sustain our communities, we must preserve our environment. Our environment is inclusive of many variables that can and is, at times,
complex. Through environmental education it is possible to build a stronger and healthier community through lifelong learning.

For the future, the Southwest CEEO will work closely with the TVI Special Projects group and TVI Administration for implementing programs that benefit TVI and the community it serves. Specifically, the Special Projects team will invite, support and encourage projects relating to TVI Educational Services that contribute to the continuous improvement of student life and student learning. As a teaching and learning institution, TVI adapts to changes in the educational, economic and social environments smoothly and efficiently, retaining the best of what has worked in the past while confidently embracing the future.

Note: Please see attached letters received regarding the support of the Southwest CEEO program in the Albuquerque community.
June 20, 1998

Mr. Charles Sanchez, Project Manager
Southwest Center for Environmental Excellence and Opportunity
Albuquerque TVI-South Valley Campus
5816 Isleta Blvd. SW
Albuquerque, NM 87105

Dear Charles:

A belated "thank you" on behalf of National Parks and Conservation Association (NPCA) for the opportunity to participate in your program this year.

As a national conservation organization, NPCA believes strongly in the purposes and goals of your project. The future of environmental protection in our country depends on our ability to educate, motivate, and involve all segments of our society in these efforts. Your creative and innovative program is making a real contribution in New Mexico, and I'm sure it will have even broader effects throughout the region as your participants move into important decision-making and leadership positions.

Keep up the good work and I look forward to improving our partnership however possible.

Sincerely,

[Signature]

David J. Simon
Southwest Regional Director

Southwest Regional Office
823 Gold Avenue, S.W., Albuquerque, NM 87102
Tel: (505) 247-1221  Fax: (505) 247-1222
DaveNPCA@aol.com  http://www.npca.org

National Office
1776 Mass. Ave., N.W., Washington, D.C. 20036
Tel: (202) 223-6722  Fax: (202) 659-0650
Dear Mr. Richardson:

I strongly support the scholarship and mentorship program administered by the Southwest Center for Environmental Excellence and Opportunity at TVI Community College in New Mexico. As a former recipient of the scholarship program, I would like to emphasize the benefits I have personally experienced.

As a single mother of three children, I decided to return to school to pursue my education. Initially, I was doubtful whether I could really handle such a schedule. I could not quit working to go to school, so I decided to continue working part-time while I pursued my education on a full-time basis. I applied and was granted a scholarship by the Southwest Center for Environmental Excellence and Opportunity (SWCEEO).

Not only was the scholarship a financial assistance. The SWCEEO scholarship program supports a mentorship program as part of the scholarship, making every recipient a member of this group. The mentorship program sponsored several speakers who were very inspirational. My personal perception of whom I really am, where I come from, and how I can make a difference for other individuals in our cultural society has been broadened. It has also increased an awareness of where I can go and how far I want to go. Initially, I was planning only on an Associate’s Degree, but as a result, I am now determined to continue on to graduate school after I have completed my studies at TVI.

I am thankful for the SWCEEO’s scholarship and mentorship program. Continuing this program is crucial in bringing an awareness to those involved. I would also like to recognize that the program couldn’t have been sponsored by a more moral and ethical group of individuals.

Sincerely,

Darlene E. Byrd

c: Mr. James M. Turner, U.S. Department of Energy, Manager
Ms. Estela Romo, U.S. Department of Energy, Project Officer
Mr. Doug Denham, U.S. Department of Energy, Director
Mr. Charles M. Sánchez, TVI Southwest CEEO, Project Manager
Mr. Bill Richardson, Secretary  
U.S. Department of Energy Headquarters  
Forrestal Building  
1000 Independence Ave. SW  
Washington, DC 20585  

Dear Mr. Richardson:

I was a recipient of the Southwest Center for Environmental Excellence and Opportunity scholarship. I would like to thank you, let you know how I benefited from the scholarship, and suggest that the program continue.

This program gave me support and the opportunity to advance my environmental education. Through the program I was made aware of job training opportunities and introduced to people in the environmental field. I was allowed to attend small business forums, and learn about the most advanced technologies. The knowledge I have gained is of great benefit to me since I will graduated this summer.

Community leaders spoke at our mentorship meetings. They increased my awareness of environmental issues. I also feel more sensitive to cultural and linguistic issues in the Hispanic community. I now feel an obligation to help others understand and participate in environmental justice and protection.

The Southwest Center for Environmental Excellence and Opportunity scholarship was extremely beneficial to my education, and I hope to see this program continue with Charles Sanchez as program director.

Sincerely,

Margaret R. Sanchez  
TVI Student

cc: James M. Turner  
Estela Romo  
Doug Denham  
Charles M. Sanchez
Mr. Charles Sanchez  
Southwest Center for Environmental Excellence and Opportunity  
5816 Isleta SW  
Albuquerque NM 87105

Dear Charles:

I wanted to let you know how much I have appreciated your business development initiatives as they related to the DOE grant you administer. I know these efforts were only a small part of your program, but they have led to some very fruitful results.

I was particularly happy with the "Tying Technology into Your Business" forum that we cosponsored on Friday, November 7, 1997. This was a great collaboration between TVI, the U.S. Department of Energy and Sandia National Laboratories. It serves as a model for future collaborative efforts.

In fact, it was in the breakout sessions at that forum that our Tech Transfer/Micro-business project was first discussed. That effort is moving along quite nicely and I look forward to seeing the final report on that project. I believe that it is a great idea and your timing was excellent.

I also wanted to thank you for introducing me to Mr. Rick Rios of JTI Inc. I liked his ideas so much that I asked him to sit on the TVI SBDC advisory board.

You are definitely one of TVI's best assets. Keep up the good work!

Sincerely Yours,

Ray A. Garcia  
Director, TVI SBDC
September 22, 1998

Mr. Charles Sanchez, Project Manager  
Southwest Center for Environmental Excellence & Opportunity  
Technical Vocational Institute (South Valley Campus)  
5816 Isleta, SW  
Albuquerque, NM 87105

Dear Charles:

The purpose of this letter is to communicate my personal appreciation for our collaborations involving your program at TVI and Sandia’s Supplier Partnerships program.

Over the past three years you and I have had a number of opportunities to work together to design and conduct forums, workshops, meetings, projects, and, of course, collaboration on our community’s Hispanic Statement of Cooperation. Whether addressing environmental restoration or business development, these community projects have invariably resulted in positive, enthusiastic support from the community for DOE, TVI, and Sandia.

The overarching constant in these successes has always been your leadership, persistence, and initiative. It is always a pleasure working with you. You and your program have been an incomparable contribution to DOE and Sandia’s efforts to build long-term, trustful relationships in the community. Your continued efforts are imperative and invaluable.

Sincerely,

[Signature]

SSB:10701:rl:inv,e

xc:  
Michael Glennon  Albuquerque TVI  
Al Stotts  US Department of Energy  
Leo Miranda  Sandia National Laboratories

*Exceptional Service in the National Interest*
November 2, 1998

Bradford Allison, Ph.D., Superintendent
Albuquerque Public Schools
725 University SE
PO Box 25704 (87125-5704)
Albuquerque, New Mexico 87106

Dear Dr. Allison:

Our desire is that you and your family are doing well celebrating your new position enjoying the local hospitality of the wonderful people in Albuquerque. Compassionate to the fact that you and your administration are acclimating yourselves in this new position we have hesitated scheduling an appointment with you. We plan to contact your office soon to discuss mutual issues of interest and introduce the interactive collaboration we have with the Albuquerque Public Schools (APS).

The purpose of this next segment is very positive especially as sometimes we are persuaded by outside forces controlling (for whatever reason) and sensationalizing negative aspects of situations and occurrences. We become biased as our opinions cloud our judgement. This letter attributes undeniable testimony surrounding positive dynamics in action at Rio Grande High School with students’- teachers’- community – APS, the Technical Vocational Institute and other partners.

As a former graduate of Rio I was especially honored as the ASJCAC, Inc. hosted twenty-five students from the high school, accompanied by teachers’, John Wright and Silda Mason and Teaching Assistant, Sadie Sanchez. They organized and participated in a tour of the San Jose Superfund Sites. The students were respectful and dignified - they communicated precisely in a very thoughtful manner. Tremendously impressed - we respond commending those involved.

Through a focused vision we will continue to succeed with strong involvement from you and your administration and partnerships with multi-stakeholders. The teachers mentioned, and Charles Sanchez, Project Manager of the Center for Environmental and Economic Excellence and Opportunity, at TVI’s South Valley Campus and our organization have formed an important alliance. Charged with supplementing and enriching the lives of our kids they are being directed toward innovative fields of technology. They are being made aware and comprehend that all of our actions impact sustainable systemic change that will affect our quality of life good and bad.

I congratulate you, Dr. Analee Maestas, Tom Savage and others at APS working strongly with communities in the best interest of kids! Great things are happening and personally I cannot wait to move forward contemplating the potential for future attainable programs and events.

Sincerely,

Dolores S. Herrera
Executive Director

Cc: John Wright, Silda Mason, Sadie Sanchez; Charles Sanchez; Analee N. Maestas, Tom Savage, Leonard Delayo Jr., Henry Rodriguez, Eduardo Soto, APS; Michael Glennon, Art Cordova, Nancy Stewart, Bob Matteucci, TVI; Mayor Baca, Senator Aragon, Rep. Saavedra, Councillor Hunley, Com. Gallegos & County Manager Juan Vigil
Dear Charles,

Thank you for your presentation during the TVI South Valley Campus Tour and for your participation at the lunch meeting at the Westside Community Center on September 2, 1998.

I commend you for making the Southwest Center for Environmental Excellence and Opportunity an integral part of the community. The partnerships you created are beneficial to students, residents, and businesses. I wish you success with all your future plans, especially those for technology transfer and environmental protection.

I look forward to continued dialogue with you on these and other issues.

If I may be of service, please do not hesitate to contact me at 766-2538.

Sincerely,

Heather Wilson
Member of Congress

HW:kr