## How the Bridge Program Impacted Stem Teacher Education at the University of New Mexico

Rosalita D. Mitchell, Ph.D.
Chair, Teacher Education Department
Director, Institute for Professional Development

The Bridge Program has been very beneficial to the STEM Teacher Education at the University of New Mexico and has implications for contributions to the state of New Mexico as well. Altogether, there are three ways in which the program has enhanced STEM Teacher Education.

First, the program supported seven minority students in their work in the Secondary Education Math and Science licensure programs. Two students completed their initial licensure requirements through Bridge Program financial support and will receive a teaching license. Five students were able to complete the entire Masters in Secondary Education which includes the professional licensure coursework, and have thus completed one requirement for licensure advancement to Level III in the New Mexico 3-Tiered Teacher Licensure System that they will be eligible for in their sixth year of teaching. In the Secondary Education Program, this was a significant number of minority students for our math and science areas in which there has historically been a very small percentage of minority licensure candidates. Further, four of these teachers are minority females, a combination of two demographic groups that we are seeking to increase in mathematics and science education. In supporting minority teaching candidates, we have also been able to give evidence of implementation of the UNM Strategic Plan in which recruitment and retention of minority students in all university programs is a central goal, particularly in view of the fact that New Mexico is a majority minority state.

Second, many of our Secondary Education students are older than the traditional student population and are commuter students with families who juggle their academic studies with responsibilities of full or part time jobs and family obligations. These conditions particularly apply to minority students who in our location are often the first generation of their families to pursue post-secondary studies and have minimal or no experience navigating the academic culture. This year, three of the Bridge STEM students either had very young children and one was pregnant for most of the academic year. The program allowed them to be full time students and provided financial and professional support for concentrating on their studies, while continuing to carry out important family responsibilities at home. One added feature was that they were able to participate, some for the first time, fully in the academic culture of the university. For example, one student had the opportunity to participate in the organization of the Teacher Education Graduate Student Association and serve as first president of this organization. This leadership position served to enhance his resume by demonstrating a potential for professional leadership. He also had the opportunity to become a representative voice for his fellow students in science and mathematics education as well as for students of color in Teacher Education.

Finally, this program contributed to the state of New Mexico by providing badly needed minority teachers in mathematics and science classrooms. Graduates of this program will be able to leverage their masters degree towards licensure advancement to Level III (Master Teacher) in the New Mexico Three-Tiered Teacher Licensure System when they have successfully completed three years of experience at Level II (within six years of initial licensure). This will allow them to move up the career ladder as quickly as allowable within the Licensure System and serve as role models for best practice in mathematics and science. In the long run, the legislature has invested millions of dollars to ensure that minority students are taught by the best possible teachers, preferably teachers from minority cultures that mirror the diversity of their students. The Bridge program has allowed us at UNM to contribute to accomplishing this ambitious goal.

## How the Bridge Program Impacted STEM Teacher Education at Arizona State University

Dr. Karen Wellner
TEAMS Coordinator
Mary Lou Fulton College of Education

Seven Bridges Fellowship awardees recently graduated with a Master's in Education and initial secondary teaching certification in two STEM disciplines: math and science. In addition to the low number of college STEM graduates throughout the country, there is also a low number of qualified college graduates who are certified to teach STEM disciplines in high school. These two facts certainly are intertwined. Secondary teachers trained in STEM disciplines and going through a certification program that places emphasis on logical thinking, pedagogy, technology in the classroom and scientific literacy is a must if we are to see STEM interest in college students rise.

Currently, five of the seven Bridges graduates have procured teaching positions to help set the course for student success in STEM. Of the two not immediately entering the teaching field, one is finishing her PhD in biochemistry and the other is going to begin a PhD program in mathematics education at ASU. The Bridges Fellowship made possible the opportunity for all underrepresented students in TEAMS to pursue their goals of teaching. Most probably would not have been able to be a part of TEAMS if money had not been made available to them. Not only has the fellowship increased the number of STEM teacher educators, but it has contributed to a more diverse teaching field in Arizona, in particular, the greater Phoenix area.

#### **Bridge to Teaching Write-ups**

"What the Bridge to Teaching Program has meant to me and my career".

### Samuel D. Francés Vázquez (ASU):

The Bridge to Teaching Program (BTT) has meant to me the opportunity to achieve a higher education without struggling with the economic issues related to pursuing it. From the day I heard about the opportunity of BTT I was excited and looking forward to be part of this initiative. I truly belief that the program should be make it part of the regular funding programs of the National Science Foundation (NSF). We are in times of Science, Technology, Engineering and Mathematics (STEM) growth and challenges. Therefore, it's important for our nation to have STEM educators that have the background in those areas and that can provides students with meaningful education. That is for me the best way the BTT has help me in my career, now I have a Master in Secondary Education of Science and as a scientist I will provide a higher education for my students in order to encourage them to pursue or to appreciate the beauty of science. Once again I'll strongly recommend the inclusion of this program as a regular one on the NSF funding.

#### **Bridgette Gómez (ASU):**

This program has truly made it possible for me to obtain a Masters degree and at a young age. I am only 22 years old and can proudly say I am the first in my family to receive a Masters degree. I know as a young Latina I will be able to impact other young Latinas to continue with their education. Helping out a group of middle school girls in an after school program at the school I student taught in has shown me the importance of having positive, motivating people in one's life. I hope to be that person for many children and hope programs like the Bridge to Teaching Program exist, that not only helps bring empowering people into the community, but also financially supports minority students to achieve higher education who may not otherwise be able to afford it.

I am thankful I was introduced to the Bridge to Teaching Program by my mathematics Professor, Carlos Castillo Chavez. It has allowed me to live out my passion of helping children enjoy learning, be happy, and love life. Serving as teacher will allow me to make connections with students and inspire them to succeed. This program has giving me the tools needed in the classroom to make learning, specifically mathematics, fun and meaningful. It has also given me a step up in my career latter and opened the doors to many opportunities. I plan on teaching nationally and internationally, and eventually continue my education as well. I am truly thankful for the opportunities the Bridge to Teaching Program has provided me and other minority students with. In the words of Cesar Chavez, "si se puede" and programs like this make it easier to achieve dreams. Mil Gracias.

#### Jainie Miranda (ASU):

Bridge to teaching program is a great opportunity for students that want to be teachers. The program provides me support, help and opens the doors for a teaching career. Bridge to teaching program plays a very important role in my academic and professional life because gives me the opportunity to be part of a very important program of National Science Foundation. Also, provides me the opportunity to have the resources that I need to achieve my academic goals in science education. With the Bridge to teaching opportunity I had ore time to focused in my academic experience in Arizona State University.

#### Crystal Murillo (ASU):

The Bridge to Teaching Program has really helped my career because it gave me exposure to teaching at the junior and high school levels. I had always thought about teaching secondary education, but since I never had any experience teaching, I was a little unsure of my abilities to teach in a classroom setting. The Bridge program gave me the experience and confidence I needed to make me want to teach. I also learned skills I consider valuable in terms of how students learn and effective teaching techniques. I also had the opportunity to collaborate with other like-minded scholars and exchange ideas about teaching and curriculum that will help me in the future.

## Katy Ruiz (ASU):

The Bridge to Teaching Program was such a blessing for me because I had just graduated with a degree in biochemistry and realized I didn't want to work in a lab the rest of my life. Teaching was always a possibility in the back of my mind, but staying in school two more years to get a teaching certificate sounded miserable. Also, I was coming away from college with a few school loans that I had to start paying so to add more loans on top of that to get another degree and live during the next two years sounded even more miserable. But through the Bridge to Teaching Program I was able to get my Master's in curriculum and instruction and my teaching certificate in one year, and my financial worries were taken care of by the living stipend. This allowed me to really focus on my program and get the most out of it. Thanks to this program I reoriented my career into one that really makes me happy by allowing me to share my love for science with kids.

## Jennifer Tom (ASU):

The BTT program helped me to be funded for the TEAMS program, which I am highly grateful for. Within the TEAMS program, I learn more about America's educational system, why we have schools, teaching methodology, student learning, diversity (ethnicity and social class) in

schools, and researched some of those topics.

The nine-month program was split into three parts. A third was dedicated towards reading and writing about our countries educational system. The next two-thirds was on teaching methodology through observation and practice at a high school or junior high school. While student teaching, I conducted research which would improve my instruction when I got into the classroom. All of these experiences got me well prepared for the classroom, and at the same time it helped me build a network of resources through teachers. The school district the TEAMS program worked with was very helpful in assisting the TEAMS members into receiving teaching positions. I know if I were looking for a teaching position, the three schools I observed and student taught in requested my resume for future employment. However, I did not pursue those invitations because of my desire to continue my education.

I really enjoyed my experience in the TEAMS program, and in other to be apart of the program I had to be funded by BTT.

#### Charlie Wilson (ASU):

The Bridge to Teach Program generous supported and encourages my work towards this degree. The entire staff great mentors, I could not have completed this degree without your encouragement. With your confidence in me I know I will become a great science teacher.

#### Britny J. Candia (UNM):

The Bridges to Teaching Program has been an excellent opportunity for me. It allowed me to meet with some of my fellow colleagues at the NSF JAM in August 2007 and provided opportunities to form collaborative relationships. The Bridges to Teaching program was a unique opportunity in that it has allowed me to completely focus on completing my studies in education by allowing me to not work this past year. I do feel that this is an excellent opportunity for science majors wanting to go into teaching and that the program has great potential if supported by the Universities it is awarded to. Although I will not be entering the work field right away because it is important to me to first complete my Masters in Education, I am very thankful to the Bridges program for providing me with the financial support needed to complete my teaching licensure.

## Jack L. Christy (UNM):

The Bridge to Teaching Program will have allowed me to complete the Master of Arts in Secondary Education. I had enough hours completed to get my teaching license prior to getting into the BTT Program. However, I would not have been able to continue pursuing the MA. It has been great. I am very glad that I was selected for the program. It will help me immensely in my teaching career.

#### Elenamaria Rogers (UNM):

To me, the Bridge to Teaching Program has meant the opportunity to get my Masters degree and teaching license, without the worry of having to work while taking classes, or having to take out more student loans. I have a one year old, and there would be no way that we would have been able to afford to pay for me to take classes with the cost of the baby. This opportunity has meant the world to me because I have always dreamt of being a teacher and having my Masters degree, and now, because of the Bridge to Teaching Program my dream is coming true. I am so grateful to be part of such a great program. Having my Masters degree will definitely help me out with my career as a teacher, and it will set a great example for my baby. I am proud to be part of this program and feel very blessed that I was accepted into it. Thank you for giving me this incredible opportunity, you've made my dream come true, and I appreciate it every day!

#### Chris Romero (UNM):

The bridges to teaching program has been a wonderful experience for me this year. This program provided me with the funding to pursue a higher degree in education at a much quicker pace than I otherwise would have without the program. I had originally intended to pursue my master's degree in secondary education over the course of a few years due to the limitations of having to go to class while teaching. The bridges to teaching program offered me the opportunity to concentrate on class, which I believe yielded a higher graduate GPA and also afforded me to take care of my newborn son during the day and go to class in the evenings. Thus, making this first year with my son an experience that most working fathers do not get. I will be completing my master's program this summer, under the funding from the bridges to teaching program, and have already secured a teaching position at Manzano High School next fall. For all of this, I am grateful to the ASU/UNM collaboration in offering the bridges to teaching program, a program I would highly recommend to any minority student that is pursuing a higher degree in education.

## Jacquelyn Sánchez (UNM):

My name is Jacquelyn Sanchez, I am a student at the University of New Mexico. I graduated in May of 2006, with a Bachelor of Science in Mathematics. I began my Masters Degree in Secondary Education in 2006, and will complete the program in the spring of 2009, after having a semester off of school in order to begin my first year teaching at a public school in the state of New Mexico. My goal for the 2008-2009 school year is to obtain a job teaching high school mathematics, and to complete my Masters Degree.

The Bridge to Teaching Fellowship Program has been a wonderful opportunity for me in that I was able to further my education, and get closer to obtaining my goal of earning my Masters Degree in Secondary Education in a timely manner. Upon completion of the program, I will be 3 credit hours away from this goal. Before entering this program, I never really gave any thought

to getting my masters degree, but now that I am so close to getting it, I know that I will not give up now. Being that I didn't think that I would get my masters, I definitely did not consider getting my PhD. I always thought of it being too far out of reach. However, after having gone to Washington DC to experience the NZISS conference, I have begun to consider getting my PhD. Even though many of the lectures were not specific to education, I found many of them to be very motivating and inspiring. I was hoping that we would also be able to attend the conference this year, so that I would be given a chance to meet more wonderful people, and to reconnect with people that I had meet last year.

Through the Bridge to Teaching Fellowship, I have been able to further my education and become inspired to complete personal and professional goals that I never would have thought possible before. Thank you!

#### Valerie A. Varoz (UNM):

I received the Bridges to Teaching Fellowship in May 2008 after graduating from the University of New Mexico with a Bachelor of Science in Chemistry. Upon realizing that working in a lab was not the career for me, I decided to enter the Masters in Secondary Education with Licensure program at UNM. I am currently completing my requirements for licensure this semester and am applying for an AP Chemistry teaching position at the high school I am student teaching at (Sandia High School, Albuquerque, NM). This position is my ideal career for teaching and whether or not I am offered the job will largely determine if I begin teaching immediately or use another year for schooling.

The Bridges to Teaching Fellowship has served as a tremendous financial aid to me, but beyond that, I believe the fellowship has been an emotional encouragement in my decision to teach. Amongst a society which rather snubs its nose at the teaching career, the support of a fellowship that actually commends scientists, mathematicians, and engineers for deciding to teach has been a breath of fresh air. My experience with the education system has shown me that holding a degree in the content you teach is invaluable, and quite honestly, seemingly superior to a general education degree. The problem is that those who study and receive degrees in STEM departments are certainly not encouraged to use their education to educate others. This fellowship is one step in that direction, bridging experts to the teaching field.

I would like to thank the National Science Foundation for realizing the importance of bridging the gap between STEM students and teaching. I hope your organization continues to lead the way in reforming the educational system by encouraging those with a STEM education to educate others.

#### Francis Vigil (UNM):

Honestly, the Bridge to Teaching Program has provided me with the means to continue and complete my graduate program. I had already completed a program that provided me with start in regards to graduate school, and ultimately, the goal was to obtain licensure in the state of New Mexico. However, I wanted to finish my graduate program while all of the education knowledge was still intact. I didn't think that I could afford the financial responsibility of graduate school, maintain a level of achievement, and juggle a family of 4. Bridge to teaching provided me with the means to financially alleviate that issue.

Also, the program provided me with good insight on issues that have arisen in education through a NSF conference in Washington. It provided me with contacts in education that our invaluable. I also learned a broader perspective, and I was able to see that the problems that are occurring here in education; they are occurring everywhere!

## 2007-2008 NSF Bridges to Teaching Data

Alliance: Western Alliance to Expand Student Opportunities (WAESO) LSAMP BTT Site: Arizona State University

Name	Degree Awarded	Undergraduate Institution	Undergraduate Major	Current Status
Samuel D. Francés- Vázquez	M.Ed. – Curriculum and Instruction (Secondary Education), Science May 2008	University of Puerto Rico, Humacao	Microbiology	Accepted teaching position in Tempe, AZ
Bridgette Goméz	M.Ed. – Curriculum and Instruction (Secondary Education), Mathematics May 2008	Arizona State University	Secondary Education (Mathematics)	Applying for mathematics teaching position.
Jainie Miranda	M.Ed. — Curriculum and Instruction (Secondary Education), Science May 2008	University of Puerto Rico, Humacao	Microbiology	Accepted teaching position in Mesa, AZ
Crystal Murillo	M.Ed. – Curriculum and Instruction (Secondary Education), Science May 2008	St. Mary's College of Maryland (BS)/ Arizona State University (MS)	Biology with Environmental Studies Concentration (BS)/Applied Biological Sciences (MS)	Accepted teaching position in Gilbert, AZ
Katy Ruiz	M.Ed. – Curriculum and Instruction (Secondary Education), Science May 2008	The University of Arizona	Biochemistry & Molecular Biophysics	Accepted teaching position in Chandler, AZ

Name	Degree Awarded	Undergraduate Institution	Undergraduate Major	Current Status
Jennifer Tom	M.Ed. – Curriculum and Instruction (Secondary Education), Mathematics May 2008	Arizona State University	Mathematics	Accepted summer teaching position in Chandler, AZ. Has applied to PhD program in Fall 2008.
Charlie Wilson	M.Ed. — Curriculum and Instruction (Secondary Education), Science May 2008	Arizona State University	Applied Biological Science	Applying for middle school science teacher position.

# Alliance: Western Alliance to Expand Student Opportunities (WAESO) LSAMP BTT Site: University of New Mexico

Name	Degree Awarded	Undergraduate Institution	Undergraduate Major	Current Status
Britny Candia	M.A. – Secondary Education, Science July 2009	University of New Mexico	Biochemistry	Currently completing coursework for degree
Jack Christy	M.A Secondary Education, Science & Social Studies July 2008	University of Oklahoma (BS)/University of New Mexico (MS)	Laboratory Technology (BS)/Environmental Science (MS)	Accepted middle school teaching position in Albuquerque, NM.
Elenamaria Rogers	M.A Secondary Education, Science July 2008	University of New Mexico	Biology, Spanish	Currently completing coursework for degree.
Chris Romero	M.A Secondary Education, Science July 2008	University of New Mexico	Biology with Environmental Studies Concentration	Completing degree coursework and has accepted teaching position in Albuquerque, NM for Fall 2008.
Jacquelyn Sanchez	M.A Secondary Education, Mathematics Spring 2009	University of New Mexico	Mathematics	Has applied for high school teaching position in Albuquerque, NM.
Valerie Varoz	Secondary Education Licensure, July 2008 and M.S. Chemistry, July 2009	University of New Mexico	Chemistry	Has applied for high school teaching position in Albuquerque, NM.
Francis Vigil	M.A Secondary Education, Science July 2008	New Mexico State University	Microbiology, Biochemistry	Currently seeking employment.

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## Jacquelyn Sánchez (UNM):

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Katy Ruiz	M.Ed. – Curriculum and Instruction (Secondary Education), Science May 2008	The University of Arizona	Biochemistry & Molecular Biophysics	Accepted teaching position in Chandler, AZ

Name	Degree Awarded	Undergraduate Institution	Undergraduate Major	Current Status
Jennifer Tom	M.Ed. – Curriculum and Instruction (Secondary Education), Mathematics May 2008	Arizona State University	Mathematics	Accepted summer teaching position in Chandler, AZ. Has applied to PhD program in Fall 2008.
Charlie Wilson	M.Ed. – Curriculum and Instruction (Secondary Education), Science May 2008	Arizona State University	Applied Biological Science	Applying for middle school science teacher position.

# Alliance: Western Alliance to Expand Student Opportunities (WAESO) LSAMP BTT Site: University of New Mexico

Name	Degree Awarded	Undergraduate Institution	Undergraduate Major	Current Status
Britny Candia	M.A. – Secondary Education, Science July 2009	University of New Mexico	Biochemistry	Currently completing coursework for degree
Jack Christy	M.A Secondary Education, Science & Social Studies July 2008	University of Oklahoma (BS)/University of New Mexico (MS)	Laboratory Technology (BS)/Environmental Science (MS)	Accepted middle school teaching position in Albuquerque, NM.
Elenamaria Rogers	M.A Secondary Education, Science July 2008	University of New Mexico	Biology, Spanish	Currently completing coursework for degree.
Chris Romero	M.A Secondary Education, Science July 2008	University of New Mexico	Biology with Environmental Studies Concentration	Completing degree coursework and has accepted teaching position in Albuquerque, NM for Fall 2008.
Jacquelyn Sanchez	M.A Secondary Education, Mathematics Spring 2009	University of New Mexico	Mathematics	Has applied for high school teaching position in Albuquerque, NM.
Valerie Varoz	Secondary Education Licensure, July 2008 and M.S. Chemistry, July 2009	University of New Mexico	Chemistry	Has applied for high school teaching position in Albuquerque, NM.
Francis Vigil	M.A Secondary Education, Science July 2008	New Mexico State University	Microbiology, Biochemistry	Currently seeking employment.

#### **Bridge to Teaching Write-ups**

"What the Bridge to Teaching Program has meant to me and my career".

#### Samuel D. Francés Vázquez (ASU):

The Bridge to Teaching Program (BTT) has meant to me the opportunity to achieve a higher education without struggling with the economic issues related to pursuing it. From the day I heard about the opportunity of BTT I was excited and looking forward to be part of this initiative. I truly belief that the program should be make it part of the regular funding programs of the National Science Foundation (NSF). We are in times of Science, Technology, Engineering and Mathematics (STEM) growth and challenges. Therefore, it's important for our nation to have STEM educators that have the background in those areas and that can provides students with meaningful education. That is for me the best way the BTT has help me in my career, now I have a Master in Secondary Education of Science and as a scientist I will provide a higher education for my students in order to encourage them to pursue or to appreciate the beauty of science. Once again I'll strongly recommend the inclusion of this program as a regular one on the NSF funding.

#### **Bridgette Gómez (ASU):**

This program has truly made it possible for me to obtain a Masters degree and at a young age. I am only 22 years old and can proudly say I am the first in my family to receive a Masters degree. I know as a young Latina I will be able to impact other young Latinas to continue with their education. Helping out a group of middle school girls in an after school program at the school I student taught in has shown me the importance of having positive, motivating people in one's life. I hope to be that person for many children and hope programs like the Bridge to Teaching Program exist, that not only helps bring empowering people into the community, but also financially supports minority students to achieve higher education who may not otherwise be able to afford it.

I am thankful I was introduced to the Bridge to Teaching Program by my mathematics Professor, Carlos Castillo Chavez. It has allowed me to live out my passion of helping children enjoy learning, be happy, and love life. Serving as teacher will allow me to make connections with students and inspire them to succeed. This program has giving me the tools needed in the classroom to make learning, specifically mathematics, fun and meaningful. It has also given me a step up in my career latter and opened the doors to many opportunities. I plan on teaching nationally and internationally, and eventually continue my education as well. I am truly thankful for the opportunities the Bridge to Teaching Program has provided me and other minority students with. In the words of Cesar Chavez, "si se puede" and programs like this make it easier to achieve dreams. Mil Gracias.

#### Jainie Miranda (ASU):

Bridge to teaching program is a great opportunity for students that want to be teachers. The program provides me support, help and opens the doors for a teaching career. Bridge to teaching program plays a very important role in my academic and professional life because gives me the opportunity to be part of a very important program of National Science Foundation. Also, provides me the opportunity to have the resources that I need to achieve my academic goals in science education. With the Bridge to teaching opportunity I had ore time to focused in my academic experience in Arizona State University.

#### **Crystal Murillo (ASU):**

The Bridge to Teaching Program has really helped my career because it gave me exposure to teaching at the junior and high school levels. I had always thought about teaching secondary education, but since I never had any experience teaching, I was a little unsure of my abilities to teach in a classroom setting. The Bridge program gave me the experience and confidence I needed to make me want to teach. I also learned skills I consider valuable in terms of how students learn and effective teaching techniques. I also had the opportunity to collaborate with other like-minded scholars and exchange ideas about teaching and curriculum that will help me in the future.

## Katy Ruiz (ASU):

The Bridge to Teaching Program was such a blessing for me because I had just graduated with a degree in biochemistry and realized I didn't want to work in a lab the rest of my life. Teaching was always a possibility in the back of my mind, but staying in school two more years to get a teaching certificate sounded miserable. Also, I was coming away from college with a few school loans that I had to start paying so to add more loans on top of that to get another degree and live during the next two years sounded even more miserable. But through the Bridge to Teaching Program I was able to get my Master's in curriculum and instruction and my teaching certificate in one year, and my financial worries were taken care of by the living stipend. This allowed me to really focus on my program and get the most out of it. Thanks to this program I reoriented my career into one that really makes me happy by allowing me to share my love for science with kids.

## Jennifer Tom (ASU):

The BTT program helped me to be funded for the TEAMS program, which I am highly grateful for. Within the TEAMS program, I learn more about America's educational system, why we have schools, teaching methodology, student learning, diversity (ethnicity and social class) in

schools, and researched some of those topics.

The nine-month program was split into three parts. A third was dedicated towards reading and writing about our countries educational system. The next two-thirds was on teaching methodology through observation and practice at a high school or junior high school. While student teaching, I conducted research which would improve my instruction when I got into the classroom. All of these experiences got me well prepared for the classroom, and at the same time it helped me build a network of resources through teachers. The school district the TEAMS program worked with was very helpful in assisting the TEAMS members into receiving teaching positions. I know if I were looking for a teaching position, the three schools I observed and student taught in requested my resume for future employment. However, I did not pursue those invitations because of my desire to continue my education.

I really enjoyed my experience in the TEAMS program, and in other to be apart of the program I had to be funded by BTT.

#### **Charlie Wilson (ASU):**

The Bridge to Teach Program generous supported and encourages my work towards this degree. The entire staff great mentors, I could not have completed this degree without your encouragement. With your confidence in me I know I will become a great science teacher.

#### Britny J. Candia (UNM):

The Bridges to Teaching Program has been an excellent opportunity for me. It allowed me to meet with some of my fellow colleagues at the NSF JAM in August 2007 and provided opportunities to form collaborative relationships. The Bridges to Teaching program was a unique opportunity in that it has allowed me to completely focus on completing my studies in education by allowing me to not work this past year. I do feel that this is an excellent opportunity for science majors wanting to go into teaching and that the program has great potential if supported by the Universities it is awarded to. Although I will not be entering the work field right away because it is important to me to first complete my Masters in Education, I am very thankful to the Bridges program for providing me with the financial support needed to complete my teaching licensure.

### Jack L. Christy (UNM):

The Bridge to Teaching Program will have allowed me to complete the Master of Arts in Secondary Education. I had enough hours completed to get my teaching license prior to getting into the BTT Program. However, I would not have been able to continue pursuing the MA. It has been great. I am very glad that I was selected for the program. It will help me immensely in my teaching career.

#### Elenamaria Rogers (UNM):

To me, the Bridge to Teaching Program has meant the opportunity to get my Masters degree and teaching license, without the worry of having to work while taking classes, or having to take out more student loans. I have a one year old, and there would be no way that we would have been able to afford to pay for me to take classes with the cost of the baby. This opportunity has meant the world to me because I have always dreamt of being a teacher and having my Masters degree, and now, because of the Bridge to Teaching Program my dream is coming true. I am so grateful to be part of such a great program. Having my Masters degree will definitely help me out with my career as a teacher, and it will set a great example for my baby. I am proud to be part of this program and feel very blessed that I was accepted into it. Thank you for giving me this incredible opportunity, you've made my dream come true, and I appreciate it every day!

#### Chris Romero (UNM):

The bridges to teaching program has been a wonderful experience for me this year. This program provided me with the funding to pursue a higher degree in education at a much quicker pace than I otherwise would have without the program. I had originally intended to pursue my master's degree in secondary education over the course of a few years due to the limitations of having to go to class while teaching. The bridges to teaching program offered me the opportunity to concentrate on class, which I believe yielded a higher graduate GPA and also afforded me to take care of my newborn son during the day and go to class in the evenings. Thus, making this first year with my son an experience that most working fathers do not get. I will be completing my master's program this summer, under the funding from the bridges to teaching program, and have already secured a teaching position at Manzano High School next fall. For all of this, I am grateful to the ASU/UNM collaboration in offering the bridges to teaching program, a program I would highly recommend to any minority student that is pursuing a higher degree in education.

## Jacquelyn Sánchez (UNM):

My name is Jacquelyn Sanchez, I am a student at the University of New Mexico. I graduated in May of 2006, with a Bachelor of Science in Mathematics. I began my Masters Degree in Secondary Education in 2006, and will complete the program in the spring of 2009, after having a semester off of school in order to begin my first year teaching at a public school in the state of New Mexico. My goal for the 2008-2009 school year is to obtain a job teaching high school mathematics, and to complete my Masters Degree.

The Bridge to Teaching Fellowship Program has been a wonderful opportunity for me in that I was able to further my education, and get closer to obtaining my goal of earning my Masters Degree in Secondary Education in a timely manner. Upon completion of the program, I will be 3 credit hours away from this goal. Before entering this program, I never really gave any thought

to getting my masters degree, but now that I am so close to getting it, I know that I will not give up now. Being that I didn't think that I would get my masters, I definitely did not consider getting my PhD. I always thought of it being too far out of reach. However, after having gone to Washington DC to experience the NZISS conference, I have begun to consider getting my PhD. Even though many of the lectures were not specific to education, I found many of them to be very motivating and inspiring. I was hoping that we would also be able to attend the conference this year, so that I would be given a chance to meet more wonderful people, and to reconnect with people that I had meet last year.

Through the Bridge to Teaching Fellowship, I have been able to further my education and become inspired to complete personal and professional goals that I never would have thought possible before. Thank you!

#### Valerie A. Varoz (UNM):

I received the Bridges to Teaching Fellowship in May 2008 after graduating from the University of New Mexico with a Bachelor of Science in Chemistry. Upon realizing that working in a lab was not the career for me, I decided to enter the Masters in Secondary Education with Licensure program at UNM. I am currently completing my requirements for licensure this semester and am applying for an AP Chemistry teaching position at the high school I am student teaching at (Sandia High School, Albuquerque, NM). This position is my ideal career for teaching and whether or not I am offered the job will largely determine if I begin teaching immediately or use another year for schooling.

The Bridges to Teaching Fellowship has served as a tremendous financial aid to me, but beyond that, I believe the fellowship has been an emotional encouragement in my decision to teach. Amongst a society which rather snubs its nose at the teaching career, the support of a fellowship that actually commends scientists, mathematicians, and engineers for deciding to teach has been a breath of fresh air. My experience with the education system has shown me that holding a degree in the content you teach is invaluable, and quite honestly, seemingly superior to a general education degree. The problem is that those who study and receive degrees in STEM departments are certainly not encouraged to use their education to educate others. This fellowship is one step in that direction, bridging experts to the teaching field.

I would like to thank the National Science Foundation for realizing the importance of bridging the gap between STEM students and teaching. I hope your organization continues to lead the way in reforming the educational system by encouraging those with a STEM education to educate others.

#### Francis Vigil (UNM):

Honestly, the Bridge to Teaching Program has provided me with the means to continue and complete my graduate program. I had already completed a program that provided me with start in regards to graduate school, and ultimately, the goal was to obtain licensure in the state of New Mexico. However, I wanted to finish my graduate program while all of the education knowledge was still intact. I didn't think that I could afford the financial responsibility of graduate school, maintain a level of achievement, and juggle a family of 4. Bridge to teaching provided me with the means to financially alleviate that issue.

Also, the program provided me with good insight on issues that have arisen in education through a NSF conference in Washington. It provided me with contacts in education that our invaluable. I also learned a broader perspective, and I was able to see that the problems that are occurring here in education; they are occurring everywhere!

## 2007-2008 NSF Bridges to Teaching Data

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Bridgette Goméz	M.Ed. – Curriculum and Instruction (Secondary Education), Mathematics May 2008	Arizona State University	Secondary Education (Mathematics)	Applying for mathematics teaching position.
Jainie Miranda	M.Ed. – Curriculum and Instruction (Secondary Education), Science May 2008	University of Puerto Rico, Humacao	Microbiology	Accepted teaching position in Mesa, AZ
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