2009

PIPER PROFESSOR NOMINATION

Texas State University-San Marcos

Name of College/University/Institute

601 University Drive, San Marcos, TX 78666

Address of Institution Zip

Type of Institution: (As defined by Coordinating Board)
(□) Public Senior ( ) Public Community/Jr. (□) Public Technical Inst. (□) Independent Senior (□) Independent Junior

Max Warshauer

Name of Piper Professor Nominee Ph. D.

Professor, Department of Mathematics

Rank/Title of Nominee and Department

Years of Teaching at College Level 29 years Years of Teaching at Present Institution 29 years

Current Teaching Load: Lecture Hours/Week 6 Lab Hours: Other 6 *

Approximate No. Students: Undergraduate 17 Graduate 4 ; Other *

Standard Full-Time Teaching Load at your Institution: Undergraduate 9 ; Graduate 0

Summer Teaching: 3 hours

* Other = Conference courses; Theses/Dissertations Directed; Misc. (Describe in next section)

Please describe current additional or administrative duties, i.e., Chairman of Department, Graduate Advisor, Thesis/Dissertation Director, etc., giving numbers of Professors/Students involved and approximate number of hours devoted thereto.

Director of Texas Mathworks, a center for Mathematics Education at Texas State. Dr. Warshauer is responsible for programs that involve approximately 500 students and 30 teachers each summer, as well as programs in the academic year that include approximately 30 undergraduates and 20 teachers in the local area as well as McAllen. These programs include the Honors Summer Math Camp (50 students), Junior Summer Math Camp (500 students), and Primary Math World Contest Team, as well as the Meadows-Richardson Fellows program for 20-30 Texas State undergraduates. Mathworks programs involve 10 faculty colleagues in the summer, and 5 faculty during the school-year, with active programs in San Marcos for undergraduates, and outreach teacher programs in San Marcos and McAllen. Collaborators include the Park City Math Institute under the auspices of the Institute for Advanced Study-Princeton, and MathNerds Teacher Collaborative with Lamar University. In addition to his teaching, Dr. Warshauer works over 20 hours/week as Director of Mathworks.
Student Organizations or Scholastic Fraternities Sponsored: (during past three years).

1. Member-Friends of Fine Arts and Communication [On-campus organization to support students]

2. Founder, Mathworks Endowment [To provide scholarships and support for students, and to sustain Mathworks as a center of excellence in mathematics and mathematics education]

Membership in Honor Societies; Professional Societies; Listing in Who's Who or Other; Special Educational Projects Undertaken (TV series, etc.), Special Awards/Grants Received:

1. 2008 Regents Professor, Texas State University System

2. 2008 and 1996 Everette Swinney Faculty Senate Excellence in Teaching Award.

3. 2008 Texas State Presidential Teaching Award; 1995 Math Department Teaching Excellence Award.


5. 2007, 1995 Department of Mathematics Teaching Excellence Award


7. 2001 First Annual Texas Higher Education Star Award, Closing the Gaps.

8. 1999 Texas Section Distinguished College or University Teaching of Mathematics, Mathematical Association of America.

9. 1984 Presidential Seminar Award, Southwest Texas State University.

10. Member American Math Society (AMS), Mathematical Association of America (MAA), National Council of Teachers of Mathematics (NCTM), and Association of Mathematics Teacher Educators (AMTE).

Service to off-campus community: (committee work, church work, fund drives, Scouts, etc.)

1. Member-San Marcos Chamber of Commerce

2. Editorial Board, Mathematics and Informatics Quarterly
Since the Piper Foundation is primarily interested in identifying and honoring effective and dedicated teachers, the Selection Committee would appreciate any information you care to submit about the nominee's teaching. Is there evidence that the nominee is particularly effective in the classroom and in personal contact with students? Has the nominee demonstrated an unusual dedication to the profession of teaching? Does the nominee inspire respect and admiration in his colleagues? In comparison with other members of the faculty, how do you rate the nominee (1) as a teacher, (2) as a scholar, and (3) in the contribution made to the achievement of the purposes of the institution?

See attached letter of nomination from Chair.

How was your nominee selected? Please be specific and indicate if he/she has been nominated before.

Selected by Faculty Senate Committee.

Fall Semester Full-time Equivalent Student Body Enrollment of your Institution: 29,125

__________________________  ______________________________
Date                                 Signature of Administrator

_____________________________
Rank/Title/Administrative Position
2009

PIPER PROFESSOR NOMINATION

PERSONAL INFORMATION

Name (X) Dr. ( ) Mr. ( ) Mrs. ( ) Miss Max L. Warshauer

First Middle Last

Home Address 2265 Summit Ridge

Number and Street

San Marcos 78666 512-396-8281

City Zip Telephone

College/University Address Texas State University-San Marcos

Name of Institution

Academic Services Building, Room 110 512-245-2935

Building and Office Telephone and Extension

Rank/Title and Department Professor/ Mathematics Department

Date of Birth: [redacted] Place of Birth: Cleveland, OH Soc. Sec. #: [redacted]

Marital Status: [redacted] Number of Children: [redacted] Ages: [redacted]

Military Service Record: Branch: [redacted] Dates: [redacted] Rank [redacted]

EDUCATIONAL EXPERIENCE: Schools and Colleges Attended, beginning with High School

<table>
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<th>Name of Institution</th>
<th>Dates of Attendance</th>
<th>Degree/Diploma Received</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Chicago</td>
<td>Sept. 1969- May 1973</td>
<td>Bachelor of Arts, Mathematics</td>
</tr>
<tr>
<td>Louisiana State University</td>
<td>Sept. 1973- May 1979</td>
<td>Ph. D., Mathematics</td>
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### Additional Training (Summer Institutes, Seminars, etc.)

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<th>Dates of Attendance</th>
<th>Type of Training</th>
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<tbody>
<tr>
<td>Inst. for Retraining in Computer Science</td>
<td>Summers, 1985, 1986</td>
<td>CS program for mathematicians</td>
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### TEACHING EXPERIENCE:

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<th>Inclusive Dates</th>
<th>Title/Rank</th>
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<tbody>
<tr>
<td>Louisiana State University</td>
<td>Sept. 1978-May 1979</td>
<td>Instructor, Mathematics</td>
</tr>
<tr>
<td>Southwest Texas State University</td>
<td>Sept. 1979-August 1984</td>
<td>Assistant Professor, Mathematics</td>
</tr>
<tr>
<td>Southwest Texas State University</td>
<td>Sept. 1984-August 1989</td>
<td>Associate Professor, Mathematics</td>
</tr>
<tr>
<td>Texas State University</td>
<td>Sept. 1989-present</td>
<td>Professor, Mathematics</td>
</tr>
</tbody>
</table>

### PUBLICATIONS:

Although the Selection Committee is not primarily concerned with "Research /Publish or Perish," please summarize any research projects completed, and list any books/articles published and/or in use, exclusive of your Master's Thesis and/or Doctoral Dissertation. (Continue on reverse side if necessary)

My research has been in three primary areas-Number Theory, Math Education, and Curriculum Development. I had several publications in Number Theory, including "The Witt Group of Degree k Maps and Asymmetric Inner Product Spaces."

In Math Education, I published a paper with Don Hazlewood "Suzuki Meets Polya, Teaching Algebra to Elementary School Children," in the Arithmetic Teacher, and several articles about teaching-- "Why Number Theory is an Ideal Subject for an Honors Course," with Terry McCabe, "Geometric Explorations with the Geometer's Sketchpad," with W.Yong and A. Susanta, and an article about recreational mathematics "The Locker Puzzle," with Eugene Curtin. My recent research has been to develop a curriculum series that introduces young students to algebra with Hiroko Warshauer and Terry McCabe.
STATEMENT OF PURPOSE: Why are you teaching?

The reason that I teach is to develop students with the knowledge, persistence, and desire to make this a better world. I begin by trying to excite young students with the joy of mathematical exploration and discovery. I want the students to learn to explore problems deeply, make conjectures, discover new ideas, and give careful explanations why things work. Once students learn that they can do things for themselves, they develop a passion for learning, and confidence that they can make a difference. They are on their way to becoming lifelong learners with the ability to analyze new problems critically, and the persistence to never give up no matter how great the challenge may seem.

Another reason why I teach is that teaching provides a way to give back and help others in much the same way that I was helped and supported when I was growing up. The greatest joy in teaching is to see one's students realize that they are able to discover new ideas without the teacher's help. I structure each of my courses with this goal in mind. Teaching involves instilling confidence, building a sound mathematical foundation, and developing a student's creativity and imagination.

Teaching others is a way of helping to make a better world, since our students will make the new discoveries and contributions that will make this a better place for all of us. Being able to nurture and inspire young students and to help create a sense of community where students and faculty work together on mathematics, is why I love to teach and what makes teaching for me such a noble and uplifting profession. Teaching is about changing lives and making a difference.

CURRICULUM VITAE: Other than what has heretofore been enumerated, please indicate the highlights of your teaching career.

1. 2008 Regents Professor Award, Texas State University System.

2. 2008 and 1996 Everette Swinney Teaching Award, Texas State University

3. 1999 Texas Section Distinguished College or University Teaching of Mathematics Award, Mathematical Association of America, and giving a talk "What is Good Teaching" to my peers from Texas.

4. 2001 Presidential Award for Excellence in Science, Math and Engineering Mentoring from Rita Colwell on behalf of President Bush, one of 10 individuals so honored in the country.

5. 2001 Star Award for Closing the Gaps from Governor Perry.

6. External funding from the Fund for the Improvement of Postsecondary Education (FIPSE), National Science Foundation, Teacher Quality Grants, Siemens, Intel, National Instruments, Meadows Foundation, Richardson Foundation, and others to support our programs for teachers and students.
AUTOBIOGRAPHICAL SKETCH: Short personal history.

Dr. Warshauer's greatest passion is teaching and working with students of all ages. He began the Honors Summer Math Camp (HSMC) in 1990, and has taught the number theory course in the program each summer. He extended the program to include younger students in 1996 by founding the Junior Summer Math Camp (JSMC) and developed this into a replicable model that included teacher training in 1997. He founded Texas Mathworks, a center of excellence in mathematics education at Texas State, to coordinate and enhance these student and teacher outreach programs. Mathworks was recognized by Governor Perry as one of five programs in Texas to receive the 2001 Texas Higher Education Star Award for Closing the Gaps. Dr. Warshauer was one of 10 individuals in the country to receive the 2001 U.S. Presidential Award for Excellence in Science, Mathematics, and Engineering Mentoring. In 2006, Dr. Warshauer also received the U.S. Presidential Recognition Award for Teaching. Mathworks programs have been funded 8 times by the American Math Society Epsilon fund, which annually supports the top 6 or so programs in the country. In 2001, Mathworks sent the first U.S. team ever to compete in the Primary Math World Contest (PMWC) in Hong Kong. Mathworks teams won the Po Leung Kuk Cup as the top non-Asian team for the 6th time in 2008 and tied for first overall. The Mathworks Honors Summer Math Camp (HSMC) for high school students has had similar outstanding success. Sixty-nine HSMC students have been named Siemens semi-finalists in the past 6 years, 29 regional finalists, and 6 students (2 teams) national finalists (top 6 in the country). The Mathworks camps reach out to students throughout Texas particularly to disadvantaged students and women. Over 7800 students, 70% Hispanic and 50% women, and 660 teachers have attended Mathworks summer programs. In 2008, Dr. Warshauer was named a Regents Professor of Mathematics, the highest honor in the Texas State University System.

Mathworks programs are influencing and changing math education in middle school classrooms. Twenty-five undergraduates each semester are supported as "Meadows" or "Richardson Fellows" to work with students in K-12 classrooms in a program Dr. Warshauer began, sponsored by the Meadows and Richardson Foundations. He established close connections with public schools through Math Inquiry Groups that link university faculty to school-room teachers and students. Another of his projects, the Mathworks Curriculum Project, extends the Mathworks summer camp curriculum to a school-year program that prepares all students, particularly English Language Learners, for algebra and more advanced math. Dr. Warshauer is dedicated to preparing our future teachers, and to providing all students the mathematical background they will need to make significant contributions in math, science, and technology.

10/6/08
Date

May Warshauer
Signature of Nominee
October 2, 2008

Minnie Stevens Piper Foundation
1250 NE Loop 410, Ste. 810
San Antonio, TX 78209-1539

NOMINATION LETTER FOR PIPER PROFESSOR AWARD

Dr. Warshauer has been a member of the mathematics faculty at Texas State since 1979. He has taught courses in the Honors program, been a volunteer coach for the American High School Math Exams at San Marcos Public Schools, and chaperoned the Asia Pacific Economic Cooperation Science Youth Festival in Seoul, Korea in 1998. He has worked to develop materials to teach algebra to middle school students, and founded and developed Mathworks as a nationally recognized Center for Excellence in Math Education.

His research in pure mathematics and the Witt group, published by Springer-Verlag, was recognized as a recipient of the Texas State Presidential Seminar Award in 1984. Dr. Warshauer then turned his attention to computer science and Mathematics Education, making significant contributions in both fields. Mathworks has provided links between our undergraduate and graduate programs and outreach programs with the public schools. The teacher training programs he conducts each summer have trained over 650 teachers in the past 10 years, each receiving graduate credits in our masters program. Mathworks has been instrumental in helping propel the mathematics department to develop a new Ph.D. program in mathematics education. A testament to his success is the external grants and funding he has received that total over $5 million.

Perhaps his greatest triumph in teaching is his uncanny ability to make the world of mathematics come alive for students in junior high and high school. His work to build and implement the Honors Summer Math Camp through NSF funding and the Mathworks endowment, which he has single-handedly built, stands as testimony to his unfailing efforts to excite young people about mathematics, opening doors to them into the world of mathematics and increasing the pool of talented mathematicians from many diverse backgrounds. It is truly impressive to note the number of Females, Blacks, and Hispanics (as well as others) who are attracted to and succeed in his programs. Dr. Warshauer has created and supervised the Honors Summer Math Camp for the past
19 years and has expanded it to include programs locally and in the Rio Grande Valley for elementary, middle, and high school students and teachers. The majority of students in these programs are Hispanic, and he is succeeding in teaching mathematical concepts at a far earlier age than is usually done. These programs have received repeated support from the National Science Foundation and American Math Society which recognize the leading programs in the country.

His interests and achievements range from Algebra and Number Theory, wherein he received his formal training for the Ph.D. degree, to several areas of computer science. He has published papers in a wide variety of areas of mathematics, mathematics education, and computer science. He also worked as a consultant with Microelectronics and Computer Technology Corporation for two years. He brings these experiences back to the classroom and is able to excite the students with his own enthusiasm for learning and integrating various disciplines.

Dr. Warshauer is a master teacher. The students view him as their mentor and guide. He has maintained his youthful enthusiasm for learning (and teaching) and he identifies well with the students while projecting his enthusiasm for the subject matter. He obtains high student ratings in his courses. He also ranks among the top group of faculty in the department merit evaluations each year and last year he received the highest score possible in teaching from the faculty merit committee. He directs and teaches the Honors Math Camp for gifted high school students, and teaches courses at the university from freshman level to graduate level, from giant classes of 350 students to small seminars. In fact I made the time in my schedule to attend most of his lectures in a large class of algebra students one semester, to try to identify what made him so successful. It seemed to evolve around his projected attitude toward the students. He would seek out questions from individual students and talk directly to them while answering, in spite of the size of the class.

Dr. Warshauer’s impact on teaching extends beyond the classroom. He has used grants to dramatically enhance and expand our undergraduate and graduate teacher preparation programs. As I mentioned earlier, his Mathworks programs have provided support for over 650 teachers in the past 10 years to attend the Mathworks summer program and learn how to offer their own math camp. The teachers leave his program excited about teaching and ready to use what they learn in their classrooms. Dr. Warshauer has also worked with the Richardson and Meadows Foundation to develop a “Richardson and Meadows Fellows” program that provides scholarships for over 25 undergraduates each year to get an early classroom teaching experience. Developed in partnership with the
San Marcos Public Schools, this program matches our students with their K-12 teachers who serve as mentors. By providing an introduction for our students to the joys of teaching, our math majors are encouraged to consider teaching as a career.

Dr. Warshauer has received numerous recognitions for both his teaching and scholarly work. He received the 1984 Presidential Seminar Award honoring his research in number theory; he was chosen for the Math Department Teaching Award in 1995; the University Everett Swinney Faculty Senate Excellence in Teaching Award in 1996, and the 1999 Texas Section of the Mathematical Association of America Distinguished College or University Teaching of Mathematics Award. In 2001, Mathworks received the first Star Award from Governor Perry for Closing the Gaps, and Dr. Warshauer received the 2001 Presidential Award for Excellence in Science, Math, and Engineering Mentoring as one of only 10 individuals so honored in the country. He was honored in 2006 with a U. S. Presidential Scholars Program Teacher Recognition Award. He received the 2008 Texas State University System Regents Professor award, the 2008 Everette Swinney Award for Excellence in Teaching and the 2008 Presidential Award for Excellence in Teaching.

For 21 years I have been the Chair of the Department of Mathematics at Texas State, and have worked with hundreds of faculty over the past 30 years. There is no other faculty member I have worked with who has been as successful in as many of the diverse areas of activity that professors are engaged in. His impact across such a broad spectrum of mathematical activities and educational levels clearly qualifies him for nomination to be considered as a Piper Professor. He has made significant contributions to research and mentoring of young faculty. Dr. Warshauer has created model programs for impacting and increasing the size and diversity of the nation’s talent pool for talented scientists and mathematicians, and he is helping the mathematics department attain new levels of excellence. Mathworks is a testament to his unbridled enthusiasm, persistence, and dedication. Most importantly, he inspires others to work with him, and provides new opportunities in research for graduate students and younger faculty. I am delighted to give Dr. Warshauer my strongest possible recommendation and support for the title of Piper Professor.

Best Regards,

Stanley G. Wayment, Chair
Department of Mathematics

SGW/1h
CURRICULUM VITAE OF MAX WARSHAUER

EDUCATION

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<th>Degree</th>
<th>Year</th>
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<td>Ph.D.</td>
<td>1979</td>
<td>Louisiana State University</td>
<td>Mathematics</td>
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<td>BA</td>
<td>1973</td>
<td>University of Chicago</td>
<td>Mathematics</td>
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DOCTORAL ADVISOR  Pierre Conner, Nicholson Professor of Mathematics

EXPERIENCE

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<tr>
<th>University</th>
<th>Position</th>
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<tr>
<td>Louisiana State University</td>
<td>Instructor</td>
<td>1978-1979</td>
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<td>Texas State University</td>
<td>Assistant Professor</td>
<td>1979-1984</td>
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</tr>
<tr>
<td>Texas State University</td>
<td>Professor</td>
<td>1989-</td>
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</table>

SELECTED PUBLICATIONS AND SCHOLARLY WORK


SELECTED LECTURES AND TALKS
10. "Recruiting future math teachers with an early K-12 classroom experience," with Hiroko
Warshauer, Alex White, and Alejandra Sorto, MAA Session on Research and Other Mathematical Experiences for Students Outside the Classroom, Joint Annual Meeting, San Antonio, TX, Jan. 2006.
18. Invited talk to Texas Section of American Math Society, "What is Good Teaching," Austin, TX, April 8, 2000.

HONORS AND AWARDS
1. 2008 Regents Professor, Texas State University System Board of Regents
2. 2008 Presidential Award for Excellence in Teaching, Texas State University.
3. 2008 Everette Swinney Faculty Senate Teaching Award, Texas State University.
4. 2007 Siemens Founders Award, Siemens Foundation, NY. ($15,000 Award), Texas Mathworks.
5. 2007 Department of Mathematics, Teaching Excellence Award
7. 2003 San Marcos CISD Recognition Plaque, Max Warshauer and Mathworks Team.
10. Texas Section Distinguished College or University Teaching of Mathematics Award, Mathematical Association of America, 1999.
11. Everette Swinney Faculty Senate Excellence in Teaching Award, 1996.
13. Presidential Seminar Award, Southwest Texas State University, 1984.

GRANTS AND GIFTS
11. PCMI PD3, Math Science Partnership Grant,” subcontract as part of NSF grant, co-PIs Terry McCabe, Hiroko Warshauer, and Alejandra Sorto, $99,000 per year for 2 years, 2006-2008.
17. The Siemens Foundation gave Mathworks $12,000 to support Siemens Fellows to attend the Honors Summer Math Camp, April 2005.
18. The American Math Society Epsilon Fund awarded Mathworks a grant of $14,000 to support scholarships for students to attend the Honors Summer Math Camp, Feb. 2005.
19. “Middle School Math Part 2”, Teacher Quality Type B grant, Texas Higher Education Coordinating Board, $80,000, May, 2005.
21. “Middle School Mathematics: Part 2,” Teacher Quality Grant Type B, Texas Higher
Education Coordinating Board, $80,000, May 2004.

TEACHING

Courses taught at Texas State University

Math 1315: College Algebra
Math 1317: Trigonometry
Math 2471, 2472: Calculus
Math 3325: Number Systems
Math 3377: Linear Algebra
Math 4330: Topology
Math 5307: Group Theory
Math 5381: Set Theory

Math 1316: Survey of Contemporary Mathematics
Math 1319, 1329: Business Mathematics
Math 3323: Differential Equations
Math 3373: Multivariable Calculus
Math 4307: Group Theory
Math 5306: Ring Theory
Math 5314: Number Theory
Honors 3392: Elementary Number Theory.
Graduate Theses/Dissertations:
- Kristin Stoley, Quadratic Forms and the Witt Ring, 1989 (supervisor).

Undergraduate Honors Thesis:
- Negar Taradji, "Interface Builder and Objective-C with the NeXT Computer," 1990, (supervisor).

SERVICE

Professional Community
- Editorial Board, *Mathematics and Informatics Quarterly*

University
- University Orientation Committee, 2006 –2007
- University Honors Committee, 1997 - 2007
- University Standards Committee, 2004 – 2007
- University Scholarship Committee, School of Science, 2000-2006.
- University Housing Committee, 2005-2006.
- Honors Chair Search Committee, 2003

Department.
- Ph.D. Committee, 2004-2007
- Advisory Board Committee, 2005 – 2007

Memberships
- American Math Society (AMS)
- Mathematical Association of America (MAA)
- National Council of Teachers of Mathematics (NCTM)
- Association of Mathematics Teacher Educators (AMTE)

Other
Dr. Max Warshauer is a Professor of Mathematics at Texas State University and Director and founder of Texas Mathworks. He founded the Honors Summer Math Camp for gifted high school students in 1990, and has taught the number theory course in this program each summer. He extended the program to include younger students in 1996 with the Mathworks Junior Summer Math Camp, and developed this into a replicable model that included teacher training in 1997. Mathworks is a center of excellence that coordinates student and teacher training programs, curriculum development, and research projects. He is currently working on a curriculum project that introduces young students to algebra and higher level mathematics, supported by grants from the Meadows Foundation, RGK Foundation, and Kodosky Foundation.

Over 7800 students and 660 teachers have attended Mathworks Summer programs. Mathworks was one of five programs in Texas to receive the 2001 Texas Higher Education Star Award for Closing the Gaps. Dr. Warshauer was one of 10 individuals in the country to receive the 2001 Presidential Award for Excellence in Science, Mathematics, and Engineering Mentoring.
Mathworks sent the first U. S. teams ever to compete in the Primary Math World Contest in Hong Kong. The teams were trained as part of Mathworks Level 5. In 2008, the Mathworks team won the Po Leung Kuk Cup as the top non-Asian team for the 6th time, while being tied for first overall among all teams. Sixty-nine Mathworks students have been named Siemens semi-finalists the past 7 years, 32 regional finalists, and 6 students (2 teams) national finalists (top 6 in the country). In December, 2007, Mathworks received the Siemens Founders Award which each year recognizes one person or program in the country for its contributions to developing future leaders in math, science, and technology. In 2008, Dr. Warshauer was recognized as a Regents Professor, the highest honor in the Texas State University System. He also received the 2008 Presidential Award for Excellence in Teaching, and the 2008 Everette Swinney Faculty Senate Teaching Award.

Dr. Warshauer also uses grants to introduce Texas State undergraduates to teaching. A 3-year grant in 2003 from the Meadows Foundation provided undergraduates with an early classroom experience as Meadows Fellows where the students were placed into middle and high school classrooms to assist teachers. This program continued with another 3-year grant from the Richardson Foundation in 2006. A total of 221 undergraduates have been Meadows or Richardson Fellows in the past 5 years, and the program is still continuing. A grant from Intel Foundation supported 4 Intel Math Scholars who assisted in the Mathworks curriculum project, and also supported 4 scholarships for high school students to attend the Honors Summer Math Camp. Grants from the National Science Foundation (NSF), Fund for the Improvement of Postsecondary Education (FIPSE), and 3 Teacher Quality through the Texas Education Agency supported teacher training that resulted in training over 660 teachers who all received graduate credit at Texas State. Grants from the Kodosky Foundation and Siemens Foundation provided opportunities for disadvantaged students to attend the Junior Summer Math Camp and Honors Summer Math Camp. The San Marcos CISD presented the Mathworks Team with a Recognition Plaque in 2003 in honor of the work and partnership of Mathworks with their students and teachers. Finally, 8 grants from the American Math Society Epsilon Fund, which each year recognizes the top 6 or so summer programs in the country, along with other sponsors and donors have provided numerous scholarships for disadvantaged students to attend the Honors Summer Math Camp. In summary, Dr. Warshauer has always tried to ensure that financial background is not a problem for students to attend Mathworks summer programs, while using grants to introduce Texas State undergraduates and graduate students to exciting opportunities in teaching and curriculum development.
Statement of Teaching Philosophy
Max Warshauer

My teaching philosophy is to immerse students in doing mathematics, following the Arnold Ross motto that doing mathematics is learning to “think deeply of simple things.” Dr. Ross taught Number Theory to me when I was in high school and attended the Ross summer program for talented high school students at Ohio State, and helped instill in me a passion for learning and a joy in tackling challenging problems. My teaching uses problem sets beginning with numerical problems that encourage students to look for patterns and make conjectures. These are followed by problems with instructions to “Prove or disprove and salvage if possible.” Students learn that there is nothing wrong with making a mistake, with trying paths that don’t result in immediate success. As Albert Einstein observed, “A person who never made a mistake never discovered anything new.” The problems are carefully sequenced so that the students learn basic principles that explain more general results and theorems. The elementary problems are not random computations. Each problem reveals part of the picture which may be explained by a more general theorem.

This method teaches students the process of doing research as they use examples to discover patterns, make conjectures, and explain why things work with carefully constructed mathematical arguments and proofs. In this way, the students gain confidence in their own ability to solve problems and are able to apply what they learn in other areas as well. The goal is for all students to develop what Carol Dweck calls a “growth mindset” that will enable them to become lifelong learners, and to realize that clear writing and beautiful proofs in mathematics are the hallmark not only of mathematicians, but at the heart of scientific and critical thinking that will be useful in everything that they do.

Teaching mathematics involves much more than numbers or even mathematical concepts; it involves building character, instilling confidence, and nurturing a student’s creativity and imagination. In the process, students develop a foundation that will enable them to analyze problems critically in any area, so that they can contribute to making a better world. To do this, I try to create an environment for sharing ideas, where students learn from one another and where there is a genuine appreciation for the value of working with others. In mathematics, there are often multiple ways to do a problem, and discussing mathematics with others enables students to understand the subtle, simple ideas that can lead to new discoveries. The best way to learn an idea is to explain what you are doing to someone else, so I encourage my students to work together and share their ideas with each other. Building a sense of community, an excitement for learning, a persistence to never give up, and a passion for knowledge are the key elements of my teaching philosophy. The most important thing to remember, as my friend and mentor David Bamberger always reminds me, is that “Nothing great ever happened without enthusiasm.”
September 4, 2008

Dear Selection Committee:

Dr. Max Warshauer is a truly exceptional candidate for Piper Professor; as a former student, math camp counselor, and college teaching assistant, I am delighted and honored to write this letter of recommendation for him. Dr. Warshauer has had more of an impact on my academic career than any other professor I’ve had, and I know that there are many other current and former students who feel the same way. He is an extraordinary person who has had a profound effect on the Texas State Math Department and on math education across the state of Texas.

I first met Max as a high school student in his summer camp program. Before that point I hadn’t been especially interested in math, but Max’s number theory course changed my perspective. I entered his program mainly because a friend of mine was going. Before camp I didn’t necessarily have more interest in math than in other subjects. Max’s number theory course gave me a taste of a type of math I had never experienced before. I loved it, and as a result I am now pursuing a doctorate in Math Education here at Texas State.

Teaching such an advanced subject (number theory) to a group of high school students is not something every professor could do. Luckily, Max has a superb teaching style; his enthusiasm and encouragement of students’ efforts, even when a first attempt at solving a problem is not successful, promotes students’ interest in the challenges that math offers. Max’s charismatic personality, his interest in individual students, and his own love for math engenders students’ engagement with and excitement toward the material. Another of Max’s special teaching strengths is his ability to choose interesting problems for students that are approachable yet at the same time extremely challenging.

In addition to being his student, I have also worked for Max in several capacities. I was a camp counselor for several summers at both the honors camp for high school students and the junior camp for middle school and junior high students. As a counselor working with Max, the enormous amount of work that goes into directing the camps became apparent to me. Max seems to have a nearly endless amount of energy and dedication. He takes a very hands-on approach to every aspect of camp from the dorms, to the curriculum, to the weekend trips.
Working at the junior camp allowed me to see how much work he does not just to teach math, but also to help the math teachers of Texas become better educators. The activities and lesson plans he comes up with for the junior camp curriculum are always innovative and fun. At times he will sit in on a lesson or even help conduct a lesson himself. He is just as excellent with younger children as he is with high school and university students.

I was also fortunate enough to be Max's teaching assistant in one of his university courses. In front of a regular college class Max exhibited the same zeal, passion for math, and interest in students' learning. Just as in the summer camps, Max impressed the class with his dynamic teaching style. I know from my fellow graduate students that he is a consistent favorite and that many will choose to take a course simply because he will be teaching it.

Because of the sheer scope of the projects he heads, Max also provides a number of jobs for students on campus. He is a superb boss and creates a truly family-like atmosphere among his workers. In spite of his many responsibilities and projects he maintains a consistently cheerful attitude in his interaction with his employees.

A truly great math professor is rare. A truly great math professor who can touch as many lives as Max has is unique. The sheer scope and number of projects he handles would be beyond any normal person; Max handles all with great effectiveness. Because of his tremendous impact on middle school, high school, and college students as well as on math education in the state of Texas, I don't think anyone could be more deserving of the Piper Professorship than Dr. Max Warshauer.

Alana Rosenwasser
Doctoral Student
Texas State University—San Marcos
September 24, 2008

To Whom It May Concern:

I am writing to recommend Dr. Max Warshauer as a Piper Professor for the Texas State University System. I have known Max as a professor and colleague for 5 years. The excitement and passion he brings to the mathematics field at Texas State is amazing. I was completely inspired by him during my first semester at TSU when I was a student in his number theory class. He has such an encouraging and caring personality that I could not turn him down when I was asked to participate in the Meadows Fellows Program that he was starting and in the Junior and Honors Summer Math Camps that he had already been running for a number of years.

The Meadows Fellows Program is funded by the Meadows Foundation. This program is run by Dr. Warshauer as well as other mathematics and education professors at TSU. The three main components of the program are the university professor, the undergraduate student, and the classroom teacher. The three parts together form a Math Inquiry Group or MIG. The MIG was built to create communication between all three levels of teaching. The word inquiry was used because discovery learning is the main goal of the program. Teachers are no longer letting students just memorize a formula or a set of steps. They are having students discover the process on their own through a series of activities or experiments. This keeps the classroom student centered and keeps the students engaged in the lesson. Without this program, I probably would not be using discovery learning in my own classroom today. The program focuses on the subject of math because qualified math teachers are in high need in the state of Texas. However, the undergrad students are not always teaching majors as well as math majors or vise versa. Another goal of the program is to encourage math majors to become teachers and elementary education majors to become 4th-8th grade math teachers. Because of Dr. Warshauer’s passion and encouragement, many have chosen to become teachers and others, like myself, have officially decided that teaching is what they were meant to do.

I had never heard of a summer camp about math until I met Dr. Warshauer, so the first summer I worked as a counselor was a whole new experience for me. The Junior Summer Math Camp focuses on 4th through 8th grade students. There are 5 levels to the program that include topics such as probability, combinatorics, and problem solving. Levels 1-4 attend camp for half a day. Level 5 students are in the Residential Program. These students attend classes in the morning as well as in the afternoon. They also live on the TSU campus for 2 weeks. Again, the main purpose of this camp is discovery learning. Dr. Warshauer wants students to understand the reason behind the math. He is always asking why something works or why a proof is true. There is also a camp in McAllen, Texas that was started by Dr. Warshauer and Dr. McCabe. After 2
weeks, the middle school students leave to be replaced by high school students, who attend the Honors Summer Math Camp. The high school students can attend camp for three years. After 3 years, some students return to be counselors at the camp. The first year students are taught number theory and the computer program Mathematica. The second year students begin learning Analysis, attend two 3 week courses, and work on a research project for the Siemens Foundation. The third year students learn Analysis 2, attend two 3 week courses, work on a research project, and start learning how to be a counselor during the 4 hour study group that all students attend in the evening. These camps include students of all ethnicities. Recently, the camp had students who were native to Mexico. One of the best things that Dr. Warshauer is doing with the program is showing every type of student that math is possible for anyone including ESL students and women. Many of the students do not only learn math knowledge from the program, but learn self-confidence as well. Any time a student feels discouraged, Dr. Warshauer is always there to tell them that if they did not get discouraged every now and then, they would never make mistakes and therefore never learn anything. Dr. Warshauer's math camps are known nation wide and are a great opportunity for all students to learn more about math and discovery.

The amount of time that Max Warshauer contributes to math and the community is outstanding. Without his passion and knowledge for math, the San Marcos community would be missing out on a great opportunity for students to learn math and achieve great things. The summer camps not only reach students in San Marcos, but students from all over the nation. It still amazes me that one man has affected so many lives through math. I am so grateful to have met Max my freshman year at TSU. He has truly inspired me to become a better math teacher and to set high expectations for all of my students no matter what level they are at. He definitely deserves the honor of becoming a Piper Professor.

Sincerely,

Sheri Stein
September 17, 2008

Dear Piper Selection Committee:

Dr. Max Warshauer deserves to be recognized! So, I’m happy to hear that you might name him a Piper Professor. As one of my first college professors, I found Dr. Warshauer to be good-natured, approachable, challenging, compassionate, and humble. As my mentor, he has encouraged me to use logic in making my own decisions.

I can remember that shortly after being accepted as a Texas State University student, I received a call from Diann McCabe, senior lecturer in the University Honors Program. She recommended that I sign up for Dr. Warshauer’s number theory course. She said that as a math major, I would enjoy his honors class, which was scheduled before my other classes for the day. Thus, Dr. Warshauer became the first professor I encountered that August of 2006 when I took my initial steps towards a college degree.

That morning, Dr. Warshauer welcomed all his students with a smile, and instead of jumping immediately into a lecture, he sat down with us and asked who we were, where we were from, and what we had chosen for a major. Right away I knew that his passion was teaching students, not just teaching a subject. And although we would be studying numbers, we would not be treated as numbers on a roster. I think we all felt more at ease and willing to contribute to the class. Throughout the semester, Dr. Warshauer engaged us in learning, always posing questions and encouraging us to look for answers in different directions. His assignments centered upon us as learners, requiring us to think deeply, not simply regurgitate information from lectures. I especially enjoyed the famous quotes he included at the top of each problem set assigned for homework. The first one was supplied by Arnold Ross, who said, “Think deeply of simple things.” Dr. Warshauer inspired us to think deeply about complicated things as well, rather than quit when we encountered tough problems. However, when things did get tough, he made sure that help was available. Plus, he gave us constructive feedback and praise.

On a personal note, I am grateful that Dr. Warshauer did not make assumptions about my abilities when I entered the room in a wheelchair. He created an environment in which everyone was accepted, and everyone could excel. Yet, he easily made accommodations for students who required more time on exams, and graciously changed to another classroom when the elevator needed repairs. We all mattered to Dr. Warshauer. I mattered to him, and I thank Max Warshauer for caring about me.

Sincerely,

Geoffrey Miller, senior mathematics major
Dear Piper Selection Committee,

I want to give my enthusiastic support for Dr. Max Warshauer’s nomination to be a Piper Professor. I came to know him and the Honors Math Camp during the summer of 1998. I subsequently worked as camp counselor for two summers and assisted with the teaching of problem discussion sessions. Thereafter, the experiences led me to study at MIT. Since my graduation in 2005, my dreams have turned towards helping humanity through medicine. I am currently a third year medical student at Texas Tech School of Medicine and a scholarship recipient and candidate for Masters of Public Health in Epidemiology degree at Emory Rollins School of Public Health. All of these endeavors would not have been possible without Dr. Warshauer’s unwavering support and encouragement. He has been a definite source of inspiration and exceptional guidance. Furthermore, the love of mathematics fostered by the camp has been a strong foundation for solving life’s problems.

Dr. Warshauer is not only a great teacher but, more importantly, he is a person who knows how to help students reach their potential and learn to appreciate their individual strength. I remember that when I was at camp, I had difficulty understanding the concepts and struggled with my proofs. I was not the sharpest mind among the group of bright math students, and I thought I did not belong initially. However, instead of letting those who know sprint ahead and letting those who struggle feel inadequate, Dr. Warshauer gave each one of us warm applause for every breakthrough we made in our problem sets and in our thinking about mathematics. He made it clear we were there to learn, not to see who came up with a solution the fastest. When I got discouraged and felt incompetent, he was there to tell me to dare to ponder difficult concepts and take my time to explore the beauty of mathematics. Dr. Warshauer dared us to “think deeply of simple things.” He and other professors at camp told me that the quickest solution to a problem is not always the most desirable one; sometimes the longest path and the deepest thinking are those that will shed light on new ideas and open up new routes of inquiry. Although my first summer was really difficult, I came back to camp for a second summer and subsequently worked as a counselor for two years to mentor the younger students.

In reflection, I believe that math camp also helped me grow tremendously as a person. Perhaps knowing that the summer math camp would become an important transformative experience in some of our young lives, Dr. Warshauer asked that we keep a weekly journal and share with him our triumphs and tribulations for that week. He read those journals and commented on each one of them and really tried to get to know everyone of us personally as well. Through the journal, I felt a tangible sense of care and support and took that chance to tell him my many “aha” moments at camp.

The math camp was also a shelter for those growing up and trying to find their way. After I immigrated to the U.S. in 1993, my family relocated frequently, and I had a difficult time adjusting to the constant changes. However, I truly found a “home” at math camp. I got to interact with a group of likeminded students who relished in challenging mathematical ideas and had the opportunity to make many friends. I felt a sense of “refuge” and support with the group of wonderful people, students and faculties, at the summer camp, and that sense of confidence propelled and encouraged me to reach far in life and use my knowledge to serve
humanity. In many ways, math camp became more than an educational experience. It became for me a life-defining experience.

I strongly support Dr. Warshauer's nomination to be a Piper Professor. The daring spirit and critical thinking skills I learned from math camp continue to help me on my journey to become a physician to better society and help those in need, and Dr. Warshauer's caring and unwavering support for me has been very important in helping me becoming the person I am today. Not often in a person's life time that one comes across a teacher, a mentor, and an advocate who has been so influential and supportive and whose summer program has been so life changing.

Sincerely,

Helen Tang Paradise

Texas Tech HSC School of Medicine
MD Candidate, 2010
Emory Rollin School of Public Health
MPH-Epidemiology Candidate, 2010
Massachusetts Institute of Technology
B.S. in Biology, 2005
October 1, 2008

Dear Selection Committee:

This letter is to acknowledge the great impact Dr. Max Warshauer has had in my professional career as a junior faculty member at Texas State University. I met Max when I came to Texas State to interview for an Assistant Professor position in the Mathematics Department about three years ago. I left Texas State that day thinking, "I have not met anyone that is more excited and passionate about both Mathematics and Mathematics teaching." As a Mathematics Educator, I found myself fascinated with the idea of being around the mind of a brilliant Mathematician and a talented teacher that connects naturally the complex abstract notions of Mathematics to the developing minds of students (of all ages) and teachers. Max does not know this, but by being around him, I am studying how a single person can acquire this powerful skill that is fundamental for teaching. I am doing this for two reasons: one is because I would like some day to have that powerful teaching quality; and two, because I am constantly reflecting on my own research in teacher preparation about what it takes to become a good mathematics teacher and mentor.

Now that I have worked with Max in many projects, I have found that there is another quality that Max has besides his brilliant knowledge of teaching mathematics. That is, his honest belief in the potential of anyone to learn – including me! There is nothing more motivational for a young faculty than the trust of her colleagues to be capable of doing exemplary work and always shooting for the best. Because of Max, I have accomplished things that I would have never accomplished such as competing for funding of exciting projects against the best scientist in the country.

Max has provided me with numerous opportunities for scholarship in mathematics education that anyone in my field would die for. For example, opportunities to work with K-12 schools, including teachers and administrators, the teaching and learning of high level mathematical concepts to young children, development of curriculum, and involvement in nation wide projects with top leaders in the field.

It is with great enthusiasm that I recommend my colleague and mentor, Dr. Max Warshauer, for the Piper Professor Award.

Sincerely,

M. Alejandra Sorto
Assistant Professor
Mathematics Department
Texas State University