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FEB. 27, 1994

DEAR BOB,

THE PAPER, A MODERN FAIRY TALE, BY JOHN POLAND, WHICH PRAISES SUNY POTSDAM'S MATH PROGRAM, WAS PUBLISHED IN THE MARCH 1987 ISSUE OF THE AMERICAN MATHEMATICAL MONTHLY, ABOUT 2 MONTHS BEFORE I RETIRED FROM TEACHING AT AGE 70. AS A RESULT OF THE PUBLICATION OF THE INDICATED PAPER, DURING THE FOLLOWING FOUR YEARS, I TRAVELED IN CANADA AND THROUGHOUT THE UNITED STATES GIVING LECTURES, CONSULTING AND CONDUCTING SEMINARS ON MATHEMATICS AND MATHEMATICS EDUCATION, EXPLAINING MY OPINION OF THE REASONS FOR THE SUCCESS OF THE SUNY AT POTSDAM MATHEMATICS PROGRAM.

AT THE END OF 4 YEARS, I DISCONTINUED THE ABOVE INDICATED PROFESSIONAL ACTIVITIES AND I HAVE NO DESIRE TO BEGIN AGAIN SUCH PROFESSIONAL ACTIVITIES. ALTHOUGH I FEEL HIGHLY HONORED BY BEING CONSIDERED AS A POSSIBLE EXTERNAL EVALUATOR FOR YOUR MATHEMATICS DEPARTMENT, I REGRET THAT I AM UNABLE TO SERVE IN SUCH CAPACITY.

I AGREE WITH YOU THAT DR. DATTA MADE A GOOD ANALYSIS OF THE SUNY AT POTSDAM MATHEMATICS PROGRAM, ESPECIALLY HIS ANALYSIS OF THE IMPORTANCE OF ROLE MODELS. YES, HE DID A REAL SERVICE TO ALL TEACHERS WHO WISH TO TEACH BETTER.

RESEARCH IN MATHEMATICS, AS YOU KNOW, IS DIFFERENT FROM RESEARCH IN MOST OTHER SUBJECTS. IT IS RARE FOR A TEACHER DOING HIGH QUALITY RESEARCH IN MATHEMATICS TO EXPLAIN THE RESULTS OF HIS OR HER RESEARCH TO STUDENTS AT THE BACHELOR'S DEGREE LEVEL OR MASTER'S DEGREE LEVEL SO THAT STUDENTS CAN UNDERSTAND AND BENEFIT FROM THE RESEARCH OF THE TEACHER. IN ADDITION, A FAVORABLE ENVIRONMENT FOR A RESEARCH MATHEMATICIAN IS ONE THAT TAKES THE RESEARCHER FAR FROM THE DISTRACTION OF HAVING TO TEACH, TO ADMINISTER, OR TO SERVE ON COMMITTEES.

THE FOLLOWING QUOTATION FROM MOVING BEYOND MYTHS GIVES SOME INDICATION OF THE CRISIS IN MATHEMATICS EDUCATION DUE TO THE NEEDS OF RESEARCH MATHEMATICIANS.

"BECAUSE PROFESSIONAL ATTITUDES ARE SHAPED PRIMARILY WHILE STUDENTS ARE IN GRADUATE SCHOOL, THE CULTURE OF THE LEADING RESEARCH DEPARTMENTS HAS A SUBTLE BUT NONETHELESS VERY REAL INFLUENCE EVEN IN THE MAJORITY OF INSTITUTIONS WHERE TEACHING IS UNQUESTIONABLY THE PRIMARY INSTITUTIONAL OBJECTIVE. ALTHOUGH SOME INSTITUTIONS HAVE TAKEN STEPS TO INCREASE THE PRIORITY OF UNDERGRADUATE TEACHING, THE OVERALL EFFECT OF GRADUATE EDUCATION IS TO PERPETUATE A SYSTEM OF REWARDS THAT UNDERVALUES TEACHING."

I AGREE WITH SOME EDUCATORS THAT, IN ORDER TO MAKE MAXIMUM IMPROVEMENT IN MATHEMATICS EDUCATION AT ALL LEVELS, WE NEED FIRST TO MAKE MAXIMUM IMPROVEMENT IN MATHEMATICS EDUCATION AT THE UNDERGRADUATE LEVEL. IN ORDER TO ACHIEVE THIS LATTER GOAL, WE NEED A STRONG COMMITMENT TO ACHIEVE THIS GOAL BY CHAIRS OF MATHEMATICS DEPARTMENTS, TENURED FULL PROFESSORS OF MATHEMATICS, DEANS, ACADEMIC VICE PRESIDENTS AND PRESIDENTS. THIS STRONG COMMITMENT MUST BE SHOWN BY ENCOURAGEMENT, RESPECT, SUPPORT AND REWARDS (SALARY INCREASES, TENURE AND PROMOTIONS) FOR DEDICATED FACULTY MEMBERS WHO ARE WILLING TO USE THEIR TIME AND CREATIVE ABILITIES IN ORDER TO ACHIEVE THE INDICATED GOAL. OTHERWISE, THIS GOAL WILL NOT BE REACHED.

BEST WISHES IN YOUR CONTINUED RESEARCH TO FIND THE BEST WAYS TO TEACH MATHEMATICS TO YOUR STUDENTS. FOR MOST OF MY PROFESSIONAL CAREER, I HELD THE RANK OF FULL PROFESSOR AND I WAS TENURED. HENCE, I DID NOT HAVE TO CARRY THE BURDEN OF ENGAGING IN ACTIVITIES, MANY OF WHICH HAVE VERY LITTLE BENEFIT TOWARD THE EDUCATION OF STUDENTS, IN ORDER TO OBTAIN TENURE, PROMOTION AND SALARY INCREASES. I WAS ABLE TO SPEND MOST OF MY TIME AND CREATIVE ABILITIES TO HELP ESTABLISH THE MOST FAVORABLE CONDITIONS FOR STUDENTS TO LEARN AND TEACHERS TO TEACH.

SINCERELY,
Steve

CLARENCE F. STEPHENS