Challenger Learning Center of the Greater Capital Region, Inc.

Need / Purpose to be Achieved

In today's rapidly developing global economy, a problem is emerging that needs the attention and involvement of all Americans to avert a national crisis in the relatively near future. For many decades, research, technology, innovation and entrepreneurship in the U.S. have provided economic progress, national security and a quality of life that has been the envy of other nations.

U.S. leadership position in these disciplines has been eroding in recent years. As a result, many economists are predicting that countries such as China and India will surpass the U.S. in terms of economic progress and prosperity in as little as 15 years. Clear signs already exist in the form of job-migration, outsourcing of services and production supplies and huge trade deficits that convey a trend toward a declining position in the global economy.

This trend can easily portend a continual weakening of the U.S. economy with crisis-like effects on national security and broad-based quality of life issues. Obviously, the stakes are high if America continues to lose ground in the critical areas of technology and innovation in this time of rapid global economic change.

Fortunately, the downward trend can be reversed and achieving a solution need not be complicated or difficult. The solution needs to begin with the recognition that a growing gap has developed between the U.S. and several other nations in the number of scientists, engineers and technologists being produced annually. This gap, if continued, will inevitably diminish our national capability to create new products and services that are the engines for economic growth and prosperity.

Closing and reversing the gap is readily doable. An important competitive advantage resides in our outstanding U.S. university system and research facilities which have the resources and capabilities to produce a substantially increased number of highly qualified technical professionals. The limiting factor to increased output has been the lagging interest of K-12 students in science and engineering education.

The straight-forward challenge to addressing our growing national problem is the need to stimulate the interest of K-12 students in science and engineering careers. Providing such stimulus is the primary mission of the Challenger Learning Center Program.

The program utilizes NASA- type settings such as space flight simulators, mission control centers and space station operations to provide hands-on correlation and application of classroom lessons in math, science and engineering subjects. Young students have shown an inherent curiosity and fascination with spaceships, astronauts, "star wars", arid space exploration that creates a broad-based attraction to the space based Challenger Learning Center Program.

Studies at other Challenger Learning Centers have shown a nearly 50% improvement in math and science grades and in the pursuit of a college-level technology track *for* participants in the Program. The goal of the proposed Schenectady based Challenger Learning Center is to capitalize on its proven process to produce more math, science and engineering professionals that will generate higher levels of technology and innovation to enhance our global competitiveness and support the Capital Regions Tech Valley thrust.