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Honorary State Representative Bill Roemer
Capitol Office
77 South High Street
Columbus, OH 43215

Honorary State Representative Bob Young
Capitol Office
77 South High Street
Columbus, OH 43215

I was recently approached with the request to endorse the designation of the **All-American Soap Box Derby as the official state gravity racing program**. I agreed to provide my endorsement with zero hesitation. I know that this request is in support of House Bill 423.

My relationship with the Soap Box Derby (SBD) has been vast since I arrived in Ohio at the beginning of 2011 to start my job as Associate Dean of Undergraduate Affairs in the College of Engineering at the University of Akron. I have attended the SBD several times with my family and have even had my son participate in their summer enrichment program.

Earlier this year I received an email from a colleague telling me that our team was invited to participate by The STEM Teacher Leadership Network on the topic "*Integrating Engineering into the Middle School Curriculum: Challenges, Strategies and Impact*".

The reason why we were selected was because of our National Science Foundation funded project called "*Zippering toward STEM: Integrating Engineering Design into the Middle School Physical Science Curriculum*". This work was a partnership between my team at the University of Akron, Akron Public Schools (APS) and the Soap Box Derby. In short, we integrated an engineering design experiment into all 8th grade physics classes in APS in conjunction with the Soap Box Derby. Our work resulted in at least three publications:

- Garafolo, N., Makki, N., Ahmed, W., Koskey, K, Halasa, K, & Visco, D. "*Exploring the Engineering Design Process through Computer Aided Design and 3D Printing*" Science Scope (NSTA), v.41 , 2017 , p.51-62.
- Visco, D. P., Koskey, K., Ahmed, W., Makki, N., Garafolo, N. G., & Kruggel, B. "*Zippering to STEM: Integrating Engineering Design in Middle School Science*" Proceedings of the 2018 Annual Conference of the American Society for Engineering Education, Salt Lake City, Utah, 2018.
- Koskey, K. L. K., Makki, N., Ahmed, W., Garafolo, N. G., Visco, D., Kruggel, B. G., & Halasa, K. "*A validity study applying the Rasch model to the American Association for the Advancement of Science force and motion sub-topic assessment for middle school students*" Journal of Applied Measurement, v.20 , 2019.

You can see a three-minute video of the project at the following location:

<https://vimeo.com/266355373>

The Soap Box Derby was a key partner in this effort and only underscores their commitment to education and the large impact the Soap Box Derby has made locally, regionally, nationally and internationally.

In conclusion, I fully support **All-American Soap Box Derby as the official state gravity racing program** with no reservations.

Sincerely,

A handwritten signature in blue ink, appearing to read "D. P. Visco, Jr.", written in a cursive style.

Donald P. Visco, Jr., Ph. D.

Professor of Chemical, Biomolecular and Corrosion Engineering