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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.

While I was writing this support letter just now, 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 8<sup>th</sup> 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