**Setser-Kissick Paula Democratic Party State Senator 12**

EDUCATION. In an age dominated by complex science and technology, how can we ensure that students receive adequate STEM educations?

• To provide adequate STEM educations, we need to increase funding and provide students with hands-on experiences through project-based learning. A crucial component of that is reducing the number of tests we subject our students to each year. For example, many elementary students receive very little science instruction because tested subjects are given more priority. Our students also need integrated STEM experiences throughout the day instead of isolating them to a special area or elective class. English class, for instance, involves reading books and stories for purposes of comprehension, critical thinking, etc. However, consider a story about the Holocaust which is then extended through a virtual reality tour of the Holocaust Museum in Washington, D.C. with Oculous Rift headsets or requires demonstrating learning through multimedia projects. The learning connections made enrich students’ knowledge and understanding.

• FOOD & WATER. How would you manage Kentucky’s agriculture so it provides healthy and affordable food grown in an ethical and sustainable way? What should government do to ensure access to clean water?

Public policy that addresses enforcement of regulations, investment in infrastructure, and incentives for farmers is desperately needed. In the case of clean water, we need to be regulating corporations and other businesses with regard to how they impact local water sources. Runoff of chemicals, as we’ve seen with mining operations in Eastern Kentucky, can spoil water for both residents and wildlife, and decaying infrastructure can lead to a devastating health crisis, like the ongoing one in Flint, Michigan. With regard to healthy and affordable food, the government needs to reward farmers for growing it. Right now, big food corporations are subsidized by the government for crops used in processed foods, thus making them cheaper, while farmers growing fruits and vegetables are forced to demand higher prices. We also need to encourage local and regional food systems and make healthier foods available in low income areas.

• ENERGY & ENVIRONMENT: With nonrenewable resources on the decline in Kentucky, how do we create a sustainable Kentucky? What are your stances on: hydraulic fracturing, nuclear, and renewable energy sources? What are your views on climate change, and how would they affect your energy policies (if at all)?

Climate change is real, and we must be vigilant in protecting the future of our planet by increasing our renewable energy sources. The key here is the word, renewable, which translates into a steady supply to meet our energy needs. To create a sustainable Kentucky, one priority is harnessing the power of solar, wind, and water in places where it’s feasible, and we already see the beginnings of that with the solar farms on reclaimed strip mines. In addition, we need to push for increased recycling efforts by offering more recycling stations and encouraging use of materials like glass bottles, paper straws and bags, etc. When it comes to hydraulic fracturing, I have major concerns with that practice since it can lead to contaminated water sources and negatively impact air quality. I’m split on the idea of nuclear power. While it’s an efficient way to generate energy and safety has increased with elevated storage tanks for cooling, there are other issues. One is waste disposal, while the other is the length of time it takes to even get plant up and running.

• ENVIRONMENTAL HEALTH AND SAFETY: How do you balance economic stability with environmental health and conservation?

It seems to me that implementing a consistent approach to environmental health and conservation makes economic stability more probable. If we gobble up our natural resources with unchecked growth, then there will be immense social and economic impacts. Air pollution, for instance, increases as our forests are destroyed and fossil fuels are burned. We might enjoy the temporary benefits of employment and products created with these resources, but what happens when jobs disappear and health consequences make themselves known? As with other areas, so many systems are interdependent on one another and an imbalance leads to unhealthy outcomes.

• SCIENTIFIC INTEGRITY. How will you foster a culture that respects scientific evidence and protects scientists? What role(s) specifically, if any, should government play in stimulating innovative science and technology so we continue to benefit from them?

While I don’t discount the role of private businesses when it comes to innovation, I feel strongly that the government has a necessary role to play in stimulating science and technology. Creating governmental research departments and facilities is critical, especially when it comes to exploring ideas that generate a positive impact on society. Much of this research may improve the human condition but doesn't necessarily generate big money. I see government as a complement to private business in this respect. As for fostering a culture of respect and protection for scientists, I think that supporting research, preserving data, and increasing science instruction in public education will go a long way toward that goal.