

Chairs, Members: I'm John Weigant. I'll spend my two minutes addressing high levels, but my best reasons are in my written testimony— my story, why I support this bill.

You already know that running a state is a complex task, balancing the conflicting desires of the people you represent. Governments provide service and safety, through taxes, subsidies, and regulations. You try to serve this huge family with “economics,” a word whose Greek roots mean “family management.” You cut a pie of resources and services, trying to distribute it equitably. Thank you! We all want bigger pieces, and those who already have big pieces want even bigger pieces. It's all about balancing three related issues: Quantity, Quality, and E-Quality.

Quantity. The laws of physics say earth's resources are limited. When they are abundant, we can grow in quantity as we consume them. Quantity is easy to measure; just look at our tax returns. But using resources converts them to waste and pollution, which accumulate, and our *quality* of life drops.

Quality. A high quality of life is all most of us want, but it's much harder to measure. Producers try to sell us more stuff to make us happier, but the real joy of life is in beauty and relationships and skills and making things better. And everyone should share in life's quality.

Which leads us to E-Quality. How the quantity and quality are distributed matters. If it's mainly for those who already have lots of quantity, to buy more stuff to try to make them happier, we've failed in our family management, our economics.

So quantity growth has limits, but quality growth doesn't. Your job is to restrict, through taxes and regulations, the *drivers* of quantity growth, and redistribute the wealth to improve quality and equality, like education, parks, and public health. Return to natural sources of energy: muscles, sun, wind, and rain. More people drive more consumption, so don't encourage population growth. Stop supporting industries that exist consume energy, like travel and tourism. Tax over-powered cars and boats. Grow gardens; make beauty at home. The opportunities are rich, and not just for the rich. Rate every bill before you for its energy efficiency and equity.

Thank you, and good luck.

My story:

I was born in Portland, and grew up in Corvallis. I've loved Oregon's woods and waters. I backpacked, climbed mountains, kayaked, skied on ski patrols, loved life. I graduated from OSU, spent 4 years in the Navy, taught high school physics, and then became an Urban Planner, which is all about accommodating the needs of various populations.

My thesis project was writing computer programs to project population growth. It made me a feminist, since women mostly determine family size, and more kids, more population, can't continue. One solution is simple: total equality for women, to enable careers other than motherhood. This peek into the future caused me to become a futurist.

For 4.5 billion years the sun's energy bathed the earth, accumulating resources in an elegant balance of life and death: forests, fisheries, aquifers, soils, pollinators, fossil energy, and more. Human knowledge also accumulated, and about three centuries ago we learned to use these resources faster than the sun could accumulate them. Thinking them endless, we converted them to waste and pollution. It can't continue. Death always follows life, and too much life will be followed by too much death, painful, ugly death.

We all behave pretty much as our cultures teach us. Ancient cultures needed many children, since they were wealth and social security for aging parents. Cultures assigned women a baby-making role, which became embedded in religions. Populations didn't grow very fast because the biblical Four Horsemen of Apocalypse—War, Famine, Pestilence, and Strife—kept numbers in check. Technology has slowed each horseman, but they're resting, ready to race again.

Populations grow in surges. Many births, then waves of death, especially of children too young to reproduce. Information also grows exponentially, but it's durable; once recorded, it lives on. It has two branches: technical and cultural/political. Technical information—science—looks at how *things* work. In science, *only* the search for truth is sacred. A terrible truth faces us. Cultural/political information studies how *people* work. Ideas adopted by religions become scared, ordered by God, and very stable. Today, science tells us there's trouble ahead that can be reduced by prompt action. Culture tells us “that's not what we're used to; I trust the old ways; I don't want to change.”

As custodians of our culture, we elect you to guide society into the future. You represent us. About half of us say this legislation will hurt us; don't do it. The other half says it's the best science we have, and you must do this for our children, and their children. Sure, it will hurt, but do it anyway. Doing nothing is worse.

The science has been clear for nearly 50 years, that physical growth has limits. A brilliant MIT team used a new science of systems dynamics and computers to model how humanity's complex systems interact with each other. They projected life to the year 2100, in 10 scenarios, adding corrections each step. The first, “Business as Usual,” showed disaster ahead, massive death. How massive? The 2004 project repeat projected life expectancy on earth would peak at about 79 years about 2020, then plunge to about 30 years by 2100. That means a lot of infant death—the Four Horsemen racing each other to see which could tally the highest score. Aggressive action on many fronts, not just carbon reduction, showed life could be good well past 2100. The results were first published in 1972 in *The Limits to Growth*. Too many people, including Ronald Reagan, said “We don't believe it.” Many still don't. Believe it. It's the best science we have.

Twenty years later, the same team updated the data and the model (*Beyond the Limits*, 1992). We're still on the “Business as Usual” scenario. It was updated again in *Limits to Growth, The 30-Year Update* in 2004. Still no change. Life for survivors will be very austere. Symposia on the 40th anniversary claimed we've already grown past a recoverable level, and some collapse is inevitable. Finally, nearly 50 years later, we see the trauma ahead, finally recognizing climates are changing. The action we need is long overdue, and capping carbon is just the first step.

So if your goals have been *more*, change them to *better*. Pass this bill, and apply the quality standard to every bill you encounter. Thank you.

Examples of what I mean:

My chain of logic follows this pattern:

1. We haven't recognized that growth has limits. Increasing growth converts more resources, which are finite, to goods, waste and pollution to serve more people.
2. As easy resources are used, what remains require more effort to get, increasing waste and pollution in the process.
3. Energy is a fundamental resource, most of it in fossil form, but increasingly solar (wind, water, photovoltaic). Conversion to solar is a huge task, especially for transportation.

4. Economic development and industry support create jobs, which, in an attractive¹ place like Oregon, brings more people.
5. More people consume more resources and create more pollution, including GHGs.
6. Some organizations and policies drive job growth and economic development, with goals opposite to the need to cut pollution, including GHGs, and resource conservation.
7. These include governments who have not yet recognized that old paradigms are no longer in the best interest of the state, the nation, the world, and the future.
8. The obsolete paradigm they follow is widespread, and continues, since they think they are doing the right thing.
9. One person like me can't know all of the instances, but a few stand out:
 - a. The Port of Portland sees itself as a "quasigovernmental business," actively promoting industrial growth. The Port has a poor record of business success², and uses business quality control strategies, opposite those of governments. Reign them in.
 - b. My city, Gresham, from 1950 through 2010, grew an average of 96% per decade, three times the median growth of the 11 Oregon Cities with populations over 50,000. It funds its economic development program with 25% of the property taxes it forgives, that would go to local districts to serve Gresham citizens. It's a viscous cycle of growth.
 - c. The tourist industry is a major consumer of fossil fuels, for transportation, space heating, and seasonal housing. Rental car and lodging taxes are fed back to expand the industry, another viscous cycle of growth.
 - d. The Oregon State Marine Board wants non-motorized boaters to pay a "Water Access Fee" to use Oregon's waterways (SB 47), violating Congress' Oregon Admission Act of 1859. It makes no sense to tax human powered recreation to expand access to remote places and for power boats that use fossil fuels. HB2080 increases boat registration fees by 50%, based on length, without considering horsepower, far more relevant to climate change issues, and far more equitable to sailboats, and even power boats.
 - e. DMV should also include a horsepower factor in car registration fees. There's too much enchantment with power, not enough with fuel economy and EV use. Certainly the transportation system could use more money for street maintenance.
 - f. OSMB and the Port of Portland have boards appointed by Governors, which could add environmental members. The Secretary of State could focus audits to cut GHGs.
10. As a general rule, every legislator on every committee should consider the GHG impact of bills that come before them. HB 2020 is just one way to cut climate change. But Greenhouse Gases are just one symptom of a much bigger problem: too much quantity growth. If you recognize there are limits to growth, many people will howl. If you don't, future generations will cry.

John Weigant, 18989 NE Marine Dr, #15, Portland, OR 97230
johnweigant@comcast.net Cell: 503-841-1727

¹ See Jay W. Forrester's Attractiveness Principle (Wikipedia and other sources). Forrester also created the field of Systems Dynamics, a discipline where complex interactions can be measured to predict results. See the 30-year *Limits to Growth* series by Donella Meadows, et al (1972, 1992, 2004)

² An incomplete list of Port business failures can be supplied on request.