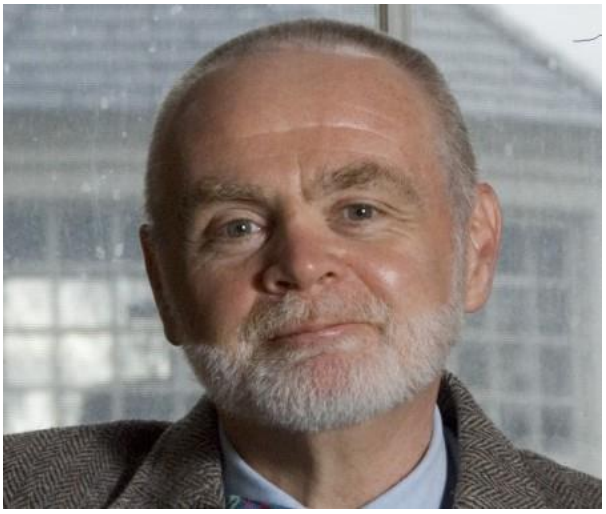
This document is an archive of all the blog posts by Mark W. Anderson in "Stirring the Pot" hosted by the Bangor Daily News beginning in 2015.


Mark W. Anderson

I have lived in Maine as far North as Caribou, as far South as Brunswick, and a few places in between. I picked potatoes for 25 cents a barrel at the age of seven and I helped manage a potato industry research program for a higher rate of pay later in life. I climbed Katahdin and have studied Maine's outdoor recreation industry. I got some training as an economist and I question some of the fundamental principles economists often embrace.

I remember like it was yesterday the day Kennedy was shot. My view of the world was shaped by the Vietnam War and the movements of the 1960s and 1970s – including the environmental and women's movements. Ed Muskie was an early hero of mine, perhaps because he was my mother's friend in college. One of my Grandfathers emigrated here from Scotland and I might have enjoyed a wee dram from time to time as a result.

I grow tomatoes, climb mountains, read history, play golf. Our house, like most Mainers, has three different heating sources and we are thinking about adding a fourth. There is no greater pleasure than to sit on the back porch with my best friend and listen to owls ask "who cooks for you, who cooks for you all?" and to hear the coyotes howl. Seeing a bobcat in the back yard was last winter's best treat.

I had the great privilege to work for over 35 years at UMaine, retiring in 2015 from the School of Economics. Most satisfying was advising many students who were studying natural resources, ecology, or environmental sciences. I got to teach

hundreds (maybe it was even thousands) of students in all majors how to think about global environmental issues. And the secret is that I think I learned more from that then they did.

I am a Fellow with UMaine's George Mitchell Center, where I learned to think more clearly about sustainability. Since retiring from UMaine I have become an editor for the journal Sustainability Science.

In Stirring the Pot I want to share with you a little bit of what I have learned.

Contents:

-"Maine Roads Stink" – 07-26-15

-The Myth of Pinchot – 08-02-15

-Class Warfare – 08-09-15

-What are Birds For? – 08-16-15

-"Renewable Energy" – Powerful Words Make Us Do Stupid Things – 08-23-15

-Are You Tired of Hearing About Climate Change? – 08-30-15

-Do You Have a Problem With Gas? – 09-06-15

-Putting a Price on Nature – 09-13-15

-I Don't Sign Climate Change Petitions – 09-20-15

-Welcome to the Anthropocene – 09-20-15

-Smart Enough to Chart our Energy Future? – 10-04-15

-Open Season on Chickadees – 10-11-15

-National Park Yes/National Part No – 10-18-15

-Toilets and Tourists – 10-25-15

-Now is the Time to Raise the Gas Tax – 11-01-15

-Confronting Climate Change Denial – 11-08-15

-Three Questions About the Ethics of Wildlife Management – 11-15-15

-A Thanksgiving Greeting: Living Poorly in the Land of Riches – 11-22-15

-Chatting About the Ethics of Wildlife Management – 11-29-15

-I Wanted to Throw the Phones Into the Ocean – 12-06-15

-Who Are the Environmentalists? – 12-13-15

-Why the Paris Climate Agreement Will Fail – 12-20-15

-Will You Be Happy in the New Year? – 01-02-16

-Why Is Governor LePage So Unhappy? – 01-10-16

-I Want a Generator – 01-17-16

-A Remembrance Day for Teachers – 01-24-16

-Who Are the Mainers? – 01-31-16

-Unless We Are More Careful, Technology Will Doom Us – 02-7-16

-Sex, Drugs, Violence, Flag Waving, and Money – 02-14-16

-The Wisdom of Higher Gas Taxes – 02-16-16

-Our Problem With Stuff – 02-24-16

-Five Books I Would Like Our New President to Read – 03-1-16

-National Park: To Which Constituents Are Our Members of Congress Listening? --03-06-16

-A Field Guide to the Anthropocene – 03-13-16

-What Moss Has to Teach Us About Gratitude –03-19-16

-How to Know If You Are Living Sustainably – 03-27-16

-A Modest Proposal for Public Schools Reform – 04-02-16

-We May Not Be Ignorant Enough – 04-10-16

-Valuing Investments in Conservation -- 04-17-16

-The Promise of Ecological Economics – 04-24-16

-Wealth and the Thorny Issues of Envy and Guilt – 05-08-16

-Economic Concepts You Should Know: Rent Seeking Behavior – 05-15-16

-$80 Coffee Beans -- Yikes! – 05-22-16

-How To Know If You Are a Mainer – 05-28-16

-One Decision Rule for Buying Meat, Eggs, and Seafood – 06-05-16

-Climate Change: Elephant in the 2016 Election Room – 06-12-16

-Light Shows: Real and Fabricated – 06-19-16

-Questions About the Second Amendment – 06-26-16

-The Crisis of Our Age Part I: Brexit – 07-02-16

-The Crisis of Our Age Part II: Welfare Economics – 07-09-16

-When My Representative Uses Public Dollars to Send Me Campaign Literature –

-The Crisis of Our Age Part III: Sustainable Degrowth –07-17-16

-Eminent Domain, Just Compensation, and A Raw Deal for Homeowners – 07-24-16

-What the Wessie Phenomenon Says About Our Attitudes Toward Nature – 08-1-16

-Must Economic Growth Continue – 09-19-16

-Donald Trump's Tax Secrets: What If Everyone's Tax Records Were Public – 10--16

-Actually, A National Energy Tax Would Be Good For Maine – 10-13-16

-So, The Election Was Rigged After All – 11-20-16

-Parsley From A Maine Garden in December -- It's Not Worth It -- 12-1-16

-When Dollars Meet the Grizzly Bear Spirit – 12-10-16

-Wild Lands: Missing Piece in Maine's Conservation Mosaic – 12-21-16

-The Wilderness Ethic – 01-16-17

-Was the Internet a Good Idea – 01-21-17

-Be Happy You Didn't Live in 1870 – 02-11-17

-Immigrants in My Family – 02-15-17

-Two Facts and One Big Question About American Health Care – 02-21-17

-The Most Important Economist You Probably Have Never Heard About – 02-28-7

-What Would You Do With An Extra $100 – 03-05-17

-Maine Roads Still Stink – 03-13-17

-Biomass Energy and Climate Change – 03-18-17

-Reading Maine – 04-10-17

-Call Me a Luddite – 04-29-17

-Political Courage and Cowardice on Taxes – 05-05-17

-What Gets Measured, Counts – 05-05-17

-312 & 2,600,000,000 – 06-03-27

-What It Means When Humans Impoverish Nature – 06-16-17

-What's Wrong With This Story – 07-02-17

-Pennies for Puffins – 07-12-17

-When Did We Stop Worrying About Population Growth – 08-03-17

-A Health Care System Rent Apart – 08-16-17

-The Lesson for Maine From Hurricane Harvey – 09-07-17

-Is the U.S. Economy One Big Ponzi Scheme – 09-24-17

-The Politicization of Sport and the Commercialization of Patriotism – 10-14-17

-Question 1: Rent Seeking Run Amok – 10-19-17

-Disdain for the Future – 12-27-17

-Re-Wilding Maine's Southern Beaches – 04-04-18

-Lessons from Japan for Imagining Sustainable De-growth – 05-06-18

-What I Would Like to Hear from Maine's Candidates for Governor – 05-16-18

-Time for the State of Maine to Get Out of the Alcohol Business – 06-10-18

-Shame on Us – 06-16-18

-The Northern Bobwhite Calls for a New Ethic – 07-15-18

-Your Tax Dollars at Work – 07-26-18

-Lessons from Seaweed – 10-22-18

-Inequality and Concern for the Environment – 11-10-18

-What Climate Change and the U.S. Federal Deficit Have in Common – 12-04-18

-One Lesson NOT to Take from France's "Yellow Vest" Protests – 12-11-18

-Profits from Patriotism – 12-16-18

-Right Wing or Left Wing—There Are Still No Free Lunches – 4-10-19

-The Economics of Nature – 06-03-19

-Cook With Olive Oil, Kill Birds – 06-11-19

-What Would Margaret Chase Smith Have Done? – 07-12-19

-What a Pandemic Should Teach Us About Neoliberalism – 03-29-20

Introducing Stirring the Pot

July 21, 2015

By Mark W. Anderson

During the fall of 2014 Mainers were embroiled in a debate over bear hunting practices. I remember one biologist's response to a commentator's question about hunting ethics. She responded, and I paraphrase, we can argue about ethics until we are blue in the face, but that's not going to get us anywhere. For her, the issue was about science. Ethics were aspects of human concern that could not be discussed productively.

My training as an economist is supposed to make me comfortable with that position. Many economists see themselves as social scientists. They are seeking to understand economic laws by applying the scientific method. Furthermore, they see themselves as objective, dispassionate observers who can be trusted to give unbiased analysis of processes central to society's wellbeing. I am not entirely comfortable with that understanding of economics, as you will see in this blog.

I think it is more realistic, and actually more honest, to consider that everyone has a perspective, what political scientists call a worldview, literally the way in which we each see the world. We process information we get about the people and the world around us based on this worldview, and everyone's worldview is different. Your perspective reflects your individual values, experiences, and perhaps even your unique genetic inheritance. Economists have worldviews and those affect what we study and how we study them, even though we use the scientific method to do that work.

Objectivity requires that there both be a reality to be discovered and that we can see that reality clearly. Differences in world view will always mean that each of us will see that reality differently, sometimes a lot differently. A stroke victim will often experience a slump in one side of his or her face. So looking at that person' profile from the left will give you a very different image of that person's wellbeing than looking from the right. Same person, different perspective, different understanding of the reality of that person's life. Perspective matters, which is true in the process of trying to solve society's problems.

This does not mean that because we have different worldviews that we cannot engage in productive discussions about public issues. Our values and the perspectives that they create are not always rigid, we can learn from each other even about ethics and values. Granted, openness to other perspectives may well be a part of worldview of some people and not of others. In Stirring the Pot I might argue about ethics, hopefully

without blue faces. More often I am going to try to present different perspectives. I am not going to shy away from exploring value differences. This is not to convince you that my values are superior to yours; rather it is to show that values matter in some fundamentally important and practical matters. How should we raise funds to repair highways? Should we have more park lands in the North Maine Woods, and who gets a say in that decision? What's the best way to deal with human-induced climate change or does income inequality matter in economic policy? These questions are all about values and the different way we think about them.

I am also going to draw on what I have learned from the study of economics, whether or not we consider that to be a science. There are some ways in which economists understand human behavior that help us in discussing important public issues. For example, we observe a phenomenon we call rent seeking behavior. This is when an individual, organization, or corporation uses public processes to favor private interests. Imagine that I convinced my Maine State Legislator that new bloggers are good for society and should be encouraged by granting them a special state income tax credit. This is rent seeking behavior by me. This, along with a corollary concept of regulatory capture, is a powerful way of understanding a lot of what we see in public policy. Another example is the phenomenon that behavioral economists term status quo bias, the tendency of humans to favor what they have over what they might acquire.

So, values mattered when it came to voting on bear hunting practices. For the biologist, her worldview was that wildlife is about scientific management. For others, it was about various ethics of hunting. And others wanted to maintain tradition, they were comfortable with the status quo. Still others wanted the State's laws on hunting to preserve their business opportunities. We are not going to all have the same worldview, but we can understand each other's perspectives a little better. That understanding will be a primary goal of Stirring the Pot.

I care deeply about Maine and its people, so Stirring the Pot will mostly be about Maine. I care about the natural environment, a concern that affected my teaching and research at UMaine. The kind of economics I practiced was "ecological" economics, a subdiscipline concerned with the natural limits within which human society functions. And I am a bit of a contrarian, so the plan here is to stir things up. The best Maine stews are well stirred and have diverse ingredients. So too the best ways to make our lives and our beautiful place on this planet better.

“Maine Roads Stink”

July 26, 2015
By Mark W. Anderson

You may remember hearing in the 2014 Maine Gubernatorial race that Maine roads stink, something which Mainers know all too well. My candidate for the worst Maine road in recent years has been Route 15 from Orland to Blue Hill, particularly in the spring time when the frost is coming out.

Finding ways to fund highway repairs is politically popular for both “tax and spend liberals” and “fiscal conservatives.” So popular that this session the Legislature passed LD 1415 which authorizes transportation bond issues for both the 2015 and 2016 fall ballots. This even transcended the fractious relations between the Legislature and the Governor who is reported to have signed the bill. (It must not have been introduced by a Democrat.)

The 2015 vote will be for an $85 million bond, $68 million of which is for highway repairs, and the 2016 vote will be for a $90 million bond, $72 million for highways. Transportation bonds are popular with voters as well Legislators and Governors, perhaps because the ballot language always manages to mention all the Federal monies the borrowing will generate. I don’t think I ever voted against one of these on the ballot and I don’t ever remember one failing to pass. Transportation bonds seem like a good deal and we all know the roads need repair. Still, I might just vote no this time. I am starting to think that borrowing money to fix roads is a bad idea.

It would be better if we were to use the tax on gasoline and diesel fuel to fund our highway repairs and to match Federal funds. It would be fairer, cheaper, and more efficient.

Maine weather is obviously a key factor in highway deterioration, but we know we are not going to do anything about that. Wear and tear on highways is also the result of two things we do control – the number of vehicle miles driven over the roads and the weight of the vehicles that make up those miles; heavier vehicles cause more damage. It turns out that the gas and diesel taxes are excellent, if not perfect, ways to reflect those two factors. More miles driven and higher vehicle weights both require more motor fuels, even in today’s more fuel efficient vehicles. So the tax on motor fuels is really not a tax at all, it is a user fee. It asks people to pay for the expenses they exact on the public purse to maintain roads.

That is why the tax is fairer than borrowing to fund highway repairs, even though no one likes higher taxes. Bonding to fund highway repairs asks people who do not drive to pay part of the costs for those who do drive. It also subsidizes tourists and other visitors to the state. We pay so they can drive here.

A higher gas tax to pay for highway maintenance would also save money. We would not need to pay the costs of issuing general obligation bonds or the costs of interest. While interest rates are low now, "making it a good time to borrow," they are not zero. The mechanism is in place now to collect gas taxes, so the costs of collecting higher gas taxes is obviously lower than borrowing.

The logic might be different if we were borrowing money to invest in new transportation infrastructure that would increase tax revenues in the future. Then the borrowing might pay for itself by generating additional tax revenues beyond the costs of borrowing. But most of the borrowed funds are going to repair existing infrastructure and will do nothing to increase the productivity of the Maine economy. At best it will keep the economy from declining.

For politicians, though, higher gas taxes are more visible to voters than borrowing. Even if we end up paying more in income and sales taxes to pay highway maintenance bond debt, that approach is essentially invisible to voters. The improved highways are tangible benefits delivered by the government with no apparent cost. This political effect is clear in recent legislative changes in the gas tax structure. Maine had a motor fuels tax that was indexed to increase with inflation. It did not generate enough money to fix all the roads, but at least it did not fall further behind every year as happens in the current system. Voter complaints led the Legislature to end the indexing in 2010. Mainers still pay the costs, they are just hidden in other taxes and fees or in poorer roads and bridges.

Maine's gasoline tax is now 30 cents a gallon and the diesel tax has been 31.2 cents a gallon. According to the Federation of Tax Administrators this places Maine in the top ten of U.S. states for the gas tax rate, but not close to the highest rate, which is in Pennsylvania at 50 cents a gallon. For the past few years, Maine has collected about $240 million a year in motor fuel taxes, according to U.S. Census data. Based on that, it would take a tax rate increase of 5 to 10 cents a gallon to generate the revenues that will come from the upcoming bond issues.

The final benefit of the motor fuel tax is the honest and clear signal that it sends to drivers. It tells us every time we fill our vehicles with fuel that we impose costs. The tax says, you should pay for the costs of those things that generate individual benefits for you. Economists call this a "price signal." And people respond to price signals, sometimes in rational ways. They drive less, consolidate trips, car pool, or drive more efficient vehicles, all of which are good for society. When we hide the costs of driving

through bond issues and ask non-drivers to share in the costs, these positive effects of price signals are lost.

Perhaps it is time to vote no on transportation bonds that are not investments. It is time to be honest with ourselves and ask our Legislators to make the costs of the highway system transparent. It is time for drivers to pay their own way and not ask others to pay those costs for them. Being afraid to do this has turned both tax and spend liberals and fiscal conservatives into borrow and spend Mainers. It is time to pay as we go.

The Myth of Pinchot

August 2, 2015
By Mark W. Anderson

Like many people, I found Governor LePage's refusal to issue Land For Maine's Future (LMF) bonds a violation of democratic principles. When I voted on the bonds there was no language saying that I was approving the Governor's use of the bonds as bargaining chips for issues of importance to him. He had "promised" to issue the bonds after the hospital debt was resolved to his liking, but now they are hostage to yet another issue, his vision for timber harvest on public reserve lands. More to the point, I recall that the bonds passed with more citizen support than the Governor himself received. Had the Governor been a bond issue, he would not have passed – twice.

Upon further reflection, I came to think the battle over LMF bonds reflects a much broader issue in Maine around the politics of forest lands in the state. There have been several public controversies in recent years around Maine's North Woods – including the Plumb Creek Concept Plan for the Moosehead Region before the Land Use Regulation Commission; the bear hunting referendum last fall; expedited approval processes for wind power development in unorganized territories; the East/West private toll highway; and proposals for a National Park and a National Recreation Area East of Baxter State Park. All of these debates and the Governor's use of bonding as a bargaining chip reflect an underlying and unstated belief in what I call the myth of Pinchot.

Gifford Pinchot was the first Chief of what is now the USDA Forest Service, and he is often referred to as the father of American professional forestry. Central to Pinchot's approach to forest management was the utilitarian concept that became known as multiple use management. Pinchot was a close protégé of Teddy Roosevelt and a central player in the Progressive movement at the beginning of the 20th Century. His concern for overexploitation of public lands by private interests in the late 19th Century led to forcible advocacy for the public role in resource management. The central tenet for Pinchot was the idea that we should manage public forest lands to achieve the greatest good, for the most people, for the longest period of time, sometimes called his utilitarian ethic. To accomplish this goal Pinchot was what American environmental historian Roderick Nash called a "multiple use man."

Multiple use management became the driving idea behind 20th Century forest management and was wholeheartedly embraced in Maine, even though most of the state's forest lands are not the public forests with which Pinchot was concerned. The idea of multiple use now means in Maine that forests can give us timber harvest (for paper making, biomass energy, and building products), outdoor recreation, watershed protection, wildlife habitat, carbon sinks, wilderness, wind powered electricity, and more. In the terminology of economists, forests provide consumptive uses, nonconsumptive uses, and ecosystem services. To oversimplify, the idea is we believe you can get everything, everywhere, all of the time from our forests.

The myth part of multiple use management is that it creates the false expectation that all of the uses can be provided without any conflict. In the jargon of today, multiple use management is characterized as the original win/win approach. The problem with that expectation is that citizens are led to believe if we just leave forest management to the professionals who understand the multiple use ethic we can get all these uses. Yet win/win solutions are not as common as we would like to think. They violate the first law of economics — there is no such thing as a free lunch.

The pursuit of multiple use management ultimately means that some uses get crowded out by others. A great example of this is research done on forest based recreation in Ontario by Len Hunt and colleagues. In this work they investigated the impact of commercial timber management activities on recreationists. With some exceptions, those participating in motorized or consumptive activities (hunting, snowmobiling, etc.) were indifferent to or enjoyed recreating in the presence of commercial timber operations. Those participating in non-motorized or non-consumptive activities (hiking, mountain biking, canoeing) preferred not to recreate in the presence of those activities. The fundamental lesson of this research is that multiple use works for some but not for others. Multiple use crowds out some types of users, just in the realm of recreation. When you start adding other uses to the forests, more crowding out occurs.

The point is that the multiple use approach holds out the promise that Maine's North Woods can meet everyone's needs (including the Governor's desire for more public timber harvest); but the reality is that choosing the multiple use approach is choosing to benefit one group of users over another. For example, while expediting wind power development in the unorganized territories benefits developers and may have a climate change benefit, it is not without costs. It may degrade the quality of life for those who have chosen to live in Maine's mountain regions or those who enjoy the migratory birds adversely affected by wind turbines. (Maine's forests are part of the North American boreal forests that are particularly important to birds.)

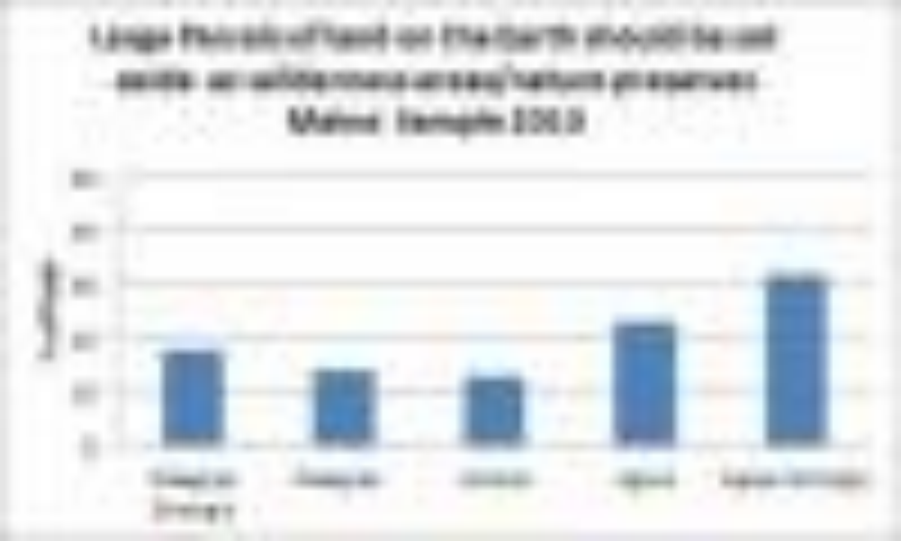
So the Governor's desire to use the LMF bond issuance to get the Legislature to permit more timber harvest from public reserve lands is one more debate framed by the multiple use ethic we inherit from Gifford Pinchot. The Governor's proposal taps into the unstated belief that additional timber harvest will not affect other desired uses.

While multiple use management was an important response to the issues faced by the national government at the beginning of the 20th Century, it tends to delude us at the beginning of the 21st Century when many more humans are asking much more from our natural world. Now more than ever there are tradeoffs in our use of public and private forest lands and there are fewer win/win outcomes.

There are two alternatives to multiple use management. First is segregation of uses, what we understand in urban and suburban environments as zoning. The scale of use

segregation in the North Maine Woods is much greater than in municipalities, but the principles are the same. The idea of a national park or national recreation area is consistent with this approach. It says that some areas are for preservation and recreational uses not compatible with industrial forestry, while other areas are just right for commercial forest management. The second alternative to multiple use is to recognize that 21st Century life will require harder choices about our landscape. To make those choices we will need to acknowledge that choice will impose costs on some users, what economists refer to as opportunity costs.

A good example of this can be seen in a survey that my colleagues and I did of Maine residents as part of UMaine's Mitchell Center for Sustainability Solutions. We asked Mainers whether they agreed with this statement: Large parcels of land on the Earth should be set aside as wilderness areas/nature preserves where humans are kept out. As you can see from this bar chart, a surprising number of people agreed with this statement. These data show support for a use that would not fit with Maine's current multiple use ethic.



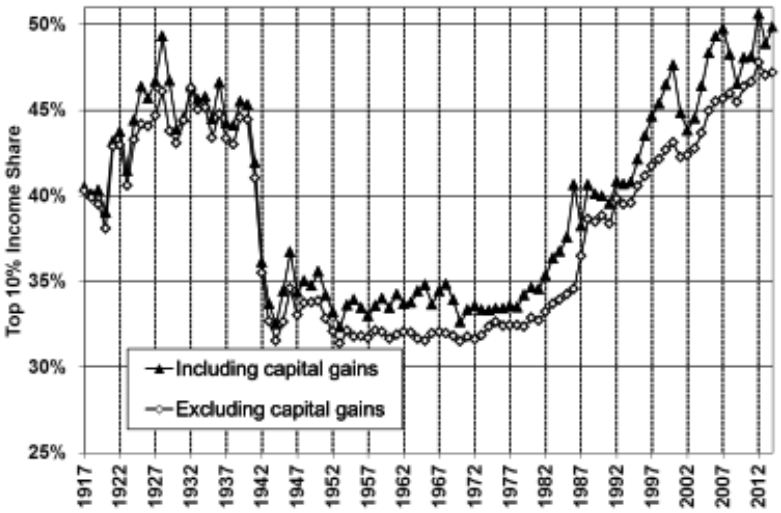
It is time for us to recognize that multiple use management does not support everyone's vision of how Maine's landscape should be used and confront the reality that some uses do crowd out others. Only by recognizing this can we begin the hard discussions about what uses we are willing to have and where.

Class Warfare?

August 9, 2015
By Mark W. Anderson

A key issue in the upcoming (and seemingly interminable) Presidential campaign is supposed to be inequality. Major candidates are already talking about their solutions to the problem of increasing inequality in the U.S. Not surprisingly, most of the proposals are for tired prescriptions from the past. Democrats call for increasing minimum wages while Republicans talk about education and job training to enhance upward mobility of workers. While both of these are both potentially worthwhile economic policies to pursue, neither is likely to reduce inequality dramatically in the U.S. The issue is much more complex.

Income inequality in the U.S. can be measured several ways, most of which show the same story. Below are data from E. Saez from the University of California, Berkeley. These data show the share of income captured by the top 10% of income earners in the U.S. over the past century. Inequality peaked in the late 1920's just before the Great Depression, with the top 10% of U.S. earners capturing about 45-50% of incomes, depending on whether you include capital gains or not. Inequality declined from this point until the 1970s when it started growing again. By the early 21st Century income distribution in the U.S. was even more unequal than it was at the end of the 1920s. The richest 10% of the population now capture half the income (and the **top 0.01%** alone get almost 5% of the income). The picture is much more nuanced than this one graphic shows and there are more data at Saez's web site for you to peruse.



Economists have lots of explanations for the growth in inequality since the 1970s, but it was not supposed to happen. The dominant economic thinking of the time when inequality was declining in the 20th Century was that this was due to overall growth in income. The belief was that "a rising tide lifts all boats," and rising incomes in growing economies would automatically result in declining inequality. And that largely worked in Western capitalist economies through the 1970s. What was not supposed to happen was what came next. Generally rising incomes from the 1980s onward resulted in most of the gains going to a smaller portion of the population. The tide was coming in but only some of the boats, the really fancy ones, were lifted.

Why? Some economists think it could be free trade and globalization of the economy. Trade created greater competition for U.S. workers by foreigners willing to work for lower wages. The decline of Maine's shoe and textile industries fit this narrative. Some think equally and more important is the shift in the U.S. economy to service and technology sectors (also part of globalization) which rewards disproportionately those with financial or technology skills. Since those skills are rarer in the workforce, those workers are able to bid up their wages, garnering a greater share of incomes as a result.

Other economists look to tax and public expenditure policy as part of the issue. By reducing our reliance on income taxes to fund public services, lowering the highest marginal income tax rates, and creating more opportunities in an increasingly complex tax code to avoid taxes, higher earners have been able to keep a larger share of their earnings. That gives those people more money to invest which allows them to earn even more in the future. In fact, a big part of these tax code changes was reduction in the tax rate on capital gains, because those earning capital gains were characterized as the "job creators." The logic was that lower capital gains tax rates would then encourage more investment and thus create more jobs.

Since owners of capital were now able to keep more of their earnings from their capital, they sometimes did invest more. The result was that workers in the U.S. became more productive. They had more and better capital to work with along with their increasing skills. So these more productive workers should have continued to earn a fair share of the country's income. It did not work out quite that way, as data from the Economist magazine show. Worker output per hour has more than doubled since 1970 and employee compensation as a share of national income has decreased steadily over that time period. Another way of saying this is that capital was earning a steadily larger share of national income. This is a good depiction of what has happened in Maine's pulp and paper industry. So reducing taxes on the "job creators" by reducing capital gains tax rates has not created jobs, rather it has increased the share of national income that goes to the owners of capital. At the same time inequality has increased.

So what do we do? Certainly we should think about increasing the marginal rate for taxing capital gains. Treating capital gains more favorably than income from work has contributed to growing inequality. It may stimulate some growth, but virtually all the benefits of that growth go to those least in need of more income. We need to stop treating growth as a panacea for all economic problems. It may well be imperative for improving the lives of people in the poorest countries of the world, but for us distribution has become the primary economic problem.

We might also change the way we finance Social Security. Currently the first dollar of income from work is taxed, both the employee and the employer paying a tax of 7.65% per dollar earned. For employees, this payroll tax ends at $118,500 in annual earnings. Above that, no tax is paid to support Social Security. This makes the payroll tax one of the most regressive in our system and discourages employment. We could eliminate the tax on the first $5,000 of earnings funding the costs by eliminating the $118,500 ceiling or by some other form of taxation. (This would be an excellent use of a revenue neutral carbon tax, but that is the subject for another day.)

We could consider how our tax codes, accounting rules, and ethics of corporate governance have allowed executive compensation in the private sector to increase dramatically while wages for non-executive workers stagnate or decline. The ratio of CEO to worker compensation in the U.S. has increased by a factor of 10 since the 1960's, just the time period when inequality bloomed. Are CEOs contributing that much more to our country's wellbeing than they were 50 years ago?

It is important to note that all of these issues are matters of public policy. It is not some anonymous market force that explains the inequality story in the data above. Rather it is a series of policy changes at the state and Federal levels that have changed the rules of life and business in America in favor of the very richest. Of course this kind of talk invites the accusation of inciting class warfare. What we have seen is guerilla warfare waged by the richest in our society while we were not looking – and they are winning.

What Are Birds For?

August 16, 2015
By Mark W. Anderson

The numbers of some bird species in North America are in steep decline, in part due to human activities. For some people this is of little concern, birds are not of interest to them. But for many humans, birds are an important part of their lives. Economists would say that many people value birds. By understanding some of these values we can think about what birds are for.

For some, birds are something to be consumed, either for the meat game birds provide or for the enjoyment from bird hunting. Bird hunting is a significant part of Maine's outdoor economy. In a like manner, others of us enjoy eating domesticated bird species – chicken, turkey, duck. Without the wild species these domesticates came from, we would not be eating those birds today.

Others enjoy birds directly, but without "consuming" the bird (in technical terms economists would call birds in this circumstance public goods). For serious birders, finding and identifying birds by sight or sound is a central part of their personal identities and birding becomes more than a hobby, it becomes a passion. There is a life list to build. Other bird watchers may not keep a life list or drive through the night for hours to see a species they have never seen. But they too get great personal satisfaction from watching birds in their native habitats.

Other people may not be birders or bird watchers, but they think they may want to become more involved in the future, perhaps in retirement. For them, an abundance of birds represents an option for future enjoyment, so they still value birds. Similarly, those who don't hunt, eat, or watch birds themselves, recognize that these activities might well be valuable to other people, particularly future generations. For these people there is value in knowing that they leave a world where future bird enthusiasts will not be deprived of a wonderful source of satisfaction. Being able to leave birds as a bequest has value.

Birds provide us what are called "ecosystem services," in the jargon of today. For example, birds eat insect pests that damage agricultural or forest products that would otherwise need chemical protection. Birds also disperse many of the seeds that give us wild flowers to enjoy. Birds are also important to ecologists who sometimes use lessons derived from the study of birds to understand other ecosystems of which birds are not a central part. We could think of this as the scientific value of birds.

Some people still see birds as important for religious or spiritual reasons. Birds might be part of a belief system rooted in nature, what anthropologists call animism. Believers in a Creator (Christians and Muslims for example) see birds as part of the Creation that they are called to steward. The famous historian Lynn White argued in the magazine Science that St. Francis of Assisi should be the patron saint of ecologists for his commitment to this very ethic. Still others may find birds valuable simply because they exist, whether or not these individuals want to eat, watch, study, worship, or bequest birds to the future.

So birds are for many things and the decline of birds of all types is a cause for regret to many people. In economic terms we would say that the loss of birds is a loss in human values of several types. Since much of the decline in bird populations is attributable to human behaviors – wind turbines, skyscrapers, house cats, communication towers, rat poisons – these losses impose costs on people who may or may not enjoy the benefits created by these destructive activities. The loss of birds is a loss of human value.

So what are birds for? Maybe the best answer is, they are for the birds. Every late summer a flock of juvenile blue jays careens through our yard, calling raucously to one another. Every early spring the white throated sparrows sing their crystalline song. In the winter, the barred owl swoops in to perch on a bare branch and wait for the unwary squirrel to pass below and provide a meal. The mid-summer evening is haunted by the ethereal songs of the hermit thrush and the veery. These and many more such events make me think birds enjoy the life of birds. They do not need humans to appreciate them to be valuable. Their lives are valuable in and of themselves, without reference to us.

Who are we to deny them those lives of wonder?

“Renewable” Energy – Powerful Words Make Us Do Stupid Things

August 23, 2015
By Mark W. Anderson

The term “renewable” is now magical when applied to energy policy. We understand intuitively that fossil fuels are fixed, not renewable. Even if they are abundant now, every bit of coal, oil, or natural gas we use means there is less available, and their use causes a host of environmental and national security problems. If an energy supply were renewable, it would be a desirable replacement for fossil fuels. This was the simple logic of the federal Energy Policy Act of 2005, including a provision to establish a renewable fuel standard. Renewability equals goodness. A host of interest groups, including many environmentalists, have lined up to support almost any energy source that can carry the adjective renewable.

We can be smarter than this. It turns out that some of policies to encourage renewable energy look just plain stupid. We need better criteria for evaluating energy alternatives, because we must reduce fossil fuel. (Stay tuned, I’ll return to this in the future.)

I suggest three better ways to think about energy policy – energy return on energy invested, also called net energy; power density; and life cycle assessment. All three are more abstract and less intuitive than renewability. Yet all three would contribute to better energy policy.

Energy return on energy invested (EROI) mirrors the idea of returns on financial investments. This metric accounts for the fact that any energy source requires other energy sources to capture, move, and transform that energy source into heat, electricity, or work. So the wood for our winter heating requires gasoline and oil for the chain saw, diesel fuel for the machinery to get the logs out of the, more gas to cut and split the wood, diesel to get the couple of cords of wood to our house, and human work (food energy) to haul, stack, and haul it again to the stove. The EROI for wood is the measure of the amount of heat we get for our house from burning the wood divided by the sum of all the energy needed to harvest, process, and deliver the wood. If the result of that calculation is greater than 1.0 then the net energy or EROI is positive; we got more energy out of the system then we put into the system.

Energy systems should be thought of in the same way we think of saving money. We would not put $100 in the bank today with the promise of getting $95 back a year from now. So we should not promote energy systems that put in 100 units of energy to get 95 units back, even if the system is deemed "renewable." We appear to have done this in the case of ethanol from corn, the primary fuel mandated from the EPA's renewable fuel standard.

There is a vigorous debate in the academic literature about whether corn ethanol's EROI is positive or negative. Scientists supported by the government argue that the EROI is positive, although the amount of net energy is not large. At best the energy out in the form of ethanol is only slightly more than the total energy it took to make this alcohol. Others scientists, notably David Pimentel of Cornell University, suggest that the net returns are negative. The sum of energy to plant, fertilize, irrigate, harvest the corn, to convert the corn to sugars, and to make ethanol from that sugar is greater than the energy in the ethanol. Virtually all of these energy inputs are fossil fuels. If Pimentel and others like him are correct, we are using more fossil fuel energy to make a gallon of ethanol from corn than that gallon of ethanol contains. But it is "renewable," so it must be good. This strikes me as a stupid policy. It would use less fossil fuels to just use them directly.

A second metric for evaluating alternative energy systems is power density. This is a measure championed by the Canadian geographer and energy expert Vaclav Smil. Smil's several books on energy are must reads for anyone who wishes to weigh in on energy issues; Energy in Nature and Society is the most comprehensive of them. Power density, which is more abstract than EROI, measures the flow of energy in spatial terms. Think of it as measuring how compact or dense an energy system is. The greater the power density of the system the less space it will consume on the planet per unit of usable energy produced, an important consideration when we are trying to find energy to support more than 7 billion humans. One of the reasons that fossil fuel systems have been so successful is that they exhibit a high power density, therefore take up less space compared to alternatives. This fact makes finding good alternatives to fossil fuels more challenging than just calling those alternatives "renewable."

Looking at another popular renewable energy — wind power — we see the usefulness of power density as a metric. Since the wind blows often, if not regularly, it is assumed that its renewability makes it a desirable energy alternative. But it has a very low power density, meaning that it will take a lot more space for the wind infrastructure to deliver the same amount of usable energy we get from fossil fuels, as we can see below from estimates made by Smil.

Power Source	Power Density (W/m^2)	
	Low	High
Natural Gas	200	2000
Coal	100	1000
Solar (PV)	4	9
Solar (CSP)	4	10
Wind	0.5	1.5
Biomass	0.5	0.6

This much lower power density explains why even modest wind power development in Maine is so visible, in some cases degrading vista's important to Maine's tourism economy. Wind power's low power density, and therefore big footprint per unit of energy delivered, also accounts for its negative impacts on birds and bats.

A final approach to evaluating alternative energies is Life Cycle Assessment (LCA). Here analysts attempt to measure the full costs of energy systems "from cradle to grave," including what economists call the external effects. These are the spillover costs when an activity imposes costs on other people that are not accounted for by typical markets where energy resources are traded. LCA would attempt to calculate the full costs of the system, from its initial development to its eventual deconstruction once obsolete.

Going back to ethanol from corn, LCA would measure the costs of increased soil erosion and nutrient loading in the Mississippi River and other water bodies adjacent to the dramatically expanded acreage dedicated to corn production because of the Renewable Fuels Standard. It would measure the increased hypoxia in the Gulf of Mexico as these nutrients are flushed down the Mississippi. It would also measure the costs from a decline in Monarch butterfly populations, partly caused by the displacement of milk weed plants throughout the Mid-West by expanded corn acreage for biofuels.

Renewable is one of those words with many vague meanings. That is part of its power. It was embraced originally by environmentalists keen to find alternative energy systems to fossil fuels. The problem was that it was also embraced by special interests who saw a way to enhance their narrow interests (sell more industrial corn, develop wind farms) in the guise of improving the environment and national security by offering "renewable" energy alternatives. Lurking behind the rhetoric of renewability were serious environmental problems that we ignored at our own risk.

We can be smarter.

Are You Tired of Hearing About Climate Change?

August 30, 2015
By Mark W. Anderson

In the spring of 1968 one of my classmates at Brewer High School nervously told a teacher that he wanted to discuss the Vietnam War. It is hard now to appreciate the anxiety created for 17 year old males when registration for the draft loomed. The teacher responded that he was tired of hearing about Vietnam and there was nothing new to say about the issue. Of course the war raged on for seven more years, tens of thousands of American and Vietnamese lives were lost, and many more were devastated. Despite my teacher's fatigue over the issue, it is fair to say that the war did not end well for the U.S. or for Vietnam.

In a very real way, climate change has become another important issue surrounded by issue fatigue. Individuals have heard what arguments they want to hear, reached a decision, and moved on. Many, like my high school teacher, are tired of hearing about the issue and believe there is nothing new to say. We take that approach at great peril.

I recall first reading about the prospect of human-induced climate change about 40 years ago in a 1965 report by the President's Science Advisory Committee. Even then scientists were observing changes we caused in the chemistry of the atmosphere that could lead to climate change. Twenty-five years ago last month, I wrote my first OpEd piece on climate change for the Bangor *Daily News* – "National commitment needed on global warming" (July 20, 1991). I no longer refer to either global warming or climate change. The appropriate term now for how humans have affected nature is global change, because humans have changed more than just the climate system. Nevertheless, the climate issue is still fundamentally important and we need to fight the sense of fatigue around it.

I am trained as an economist, not an atmospheric scientist. But I have read a lot of the science of climate change and many of the critiques of that science from both skeptics and deniers. For me there is no doubt of three things:

-the climate is changing along with other aspects of the Earth system;

-a significant portion of that change is due to human behaviors that we control;

-we cannot afford to let our fatigue on the issue keep us from forcibly confronting it.

The Obama administration has now proposed new rules to address climate change caused by power plants in the U.S. The logic of this approach appears to be that "half a loaf is better than none." Since Congress has refused to acknowledge the human role in climate change, the President is forced to use provisions of the Clean Air Act to designate carbon dioxide as a pollutant. This then allows a regulatory approach to address fossil fuel power plant emissions.

The problem with this approach is two-fold. First, it only addresses a fraction of the carbon dioxide emissions from the U.S. economy, maybe one third; and it regulates those emissions in a convoluted, inefficient, and ultimately expensive way. Second, this approach tells the average American that the electric power industry is at fault for climate change; the rest of us are absolved of responsibility.

Many economists, like Harvard's Greg Mankiw, advocate a different approach from the fiddly regulatory mechanism under the Obama Clean Power Plan. They would use taxes, like a revenue-neutral tax on carbon and other greenhouse gases. Rather than just change how electricity generation contributes to climate change, we would build into economic systems incentives to make a host of positive changes. Economic activities that are damaging to the climate would be discouraged while those that contribute to climate change solutions would be encouraged.

The revenue-neutral part of a carbon tax is meant to reduce some other federal taxes so that the overall rate of taxation would not increase. My preference for the tax to offset with a carbon tax is the payroll tax that funds Social Security. Rather than reducing the rate of payroll taxes, it would be wiser to eliminate the tax on the first $5,000 to $10,000 of earnings every year. This would reduce the regressive nature of the payroll tax and reduce the burden of the new carbon tax on those in society least able to pay.

A broad-based tax on carbon emissions presents a number of political problems. For some people, any new tax, even one that is revenue neutral, is an anathema. The "T" word is so toxic that, were George Carlin doing his famous sketch now, he would have to change its title to "Eight Dirty Words." Even more problematic, there is a host of regulatory and tax policies around energy use that a carbon tax would make unnecessary or even counterproductive. These would need to be changed, causing a line of special interests in opposition to a carbon tax. Not the least of these would be in the world of renewable energy where special interests have been particularly effective.

The second problem with the Obama plan is that it ignores the reality that individuals are at the root cause of changes in the atmosphere creating climate change. It is how you and I live in our daily lives that matters. The average American emits over 20 tons

of carbon dioxide a year in heating, electricity use, transportation, food, and recreation. Our carbon footprint is large. The clear benefit of a carbon tax is the market signal to everyone in our society telling them what their true impact is from the way we live now. That market signal then encourages innovation and lifestyle changes that will lead much more quickly to a better environment. It says to each of us, in the words of Eldridge Cleaver, "You're either part of the solution or part of the problem."

In the same way that fatigue over America's war in Vietnam led to years of disastrous policy, we face the same prospect with climate change. Let us collectively face up to the challenge, if for no other reason than it is in our best interest to do so.

Do You Have a Problem With Gas?

September 6, 2015
By Mark W. Anderson

When my colleagues and I meet new people and they find we are with the School of Economics, we often get the same response. We are asked for investment advice or to answer some question on when Federal Reserve will raise interest rates. My answer is that I am not going to be much help because I am not that kind of economist; I do environmental economics. Most people are either disappointed or puzzled. Economics and the environment are not words they think can be logically joined.

In the coming months I will pause from time to time from topical posts to this blog and will discuss some ideas from economics that are useful for thinking about public policy on resources and the environment. One point of this is to make clear that economics is about much more than business and finance, though those are important areas of study. While I tell people my area of economics is environmental economics, that is shorthand for what I really do, which is ecological economics. I studied the way in which decisions we make in the economy are constrained by and affect the larger natural environment. I have colleagues at UMaine who do other types of economics such as behavioral economics, evolutionary economics, resource and environmental economics, energy economics, and several other areas as well. The point is that the discipline is broad and principles from each of these areas are helpful in public policy.

When we teach economic principles in college courses, we usually start by describing a model of how competitive markets function. You may recall learning about the "law" of supply and demand. This is because we live in a market-based economy and understanding how markets might work in a pure case is helpful in understanding the real. It turns out that competitive markets, like those in introductory text book models, are rare. Markets often fail to live up to the attributes described in the pure case. Understanding market failure is a central theme in many different areas of economics, particularly environmental economics.

This is not to say that markets are of no interest to environmental economists. In my blog post on climate change I advocated for harnessing the power of markets to address this most important problem facing humanity today. That policy of using a carbon tax to address climate change is based on the idea of **externalities**, a common

type of market failure. I will use burning gasoline in our automobiles to explain. We all have a problem with gas.

When you and I buy a gallon of gasoline for our cars we pay a market price that covers the costs of drilling for oil, shipping crude oil to a refinery, refining the oil into its components, including gasoline, shipping the gasoline to storage tanks and then to the local convenience store, a few pennies for the store itself, and some profit for various firms involved along the way. We call these internal costs and they make up the supply part of that law of supply and demand you remember. They go into the price you see from the roadside when you decide just how much gasoline you are going to buy today.

The idea of externalities is that there are costs in addition to these internal costs that are not covered in this market price you pay at the pump. The word externalities comes from the idea that these costs are outside of or external to the market, so you do not have to pay them when you buy and burn the gas in your car. They are real costs but external to the market. These include a number of health and environmental costs. For example, burning gasoline generates in the exhaust gas a car emits nitrogen oxides that are precursors for ozone in the lower levels of the atmosphere (tropospheric ozone). This ozone contributes to respiratory diseases in the U.S. like asthma, creating healthcare costs and personal misery for tens of thousands of Americans. You and I impose these costs on others every time we drive, but since they are "external" to the market we do not have to pay for them.

Climate change is another good example. Every gallon of gas we burn in our cars generates about 19 pounds of carbon dioxide, the most important of several so-called greenhouse gases. And that carbon dioxide can stay in the atmosphere for decades after we put it there. While not all climate change is caused by human-produced greenhouse gases, a significant portion of it is. So the costs of more extreme weather events, of global sea level rise, and the other climate change effects from human behaviors, are in part from our gasoline use. But we do not pay these costs, they are externalities. Ocean pollution from petroleum transport, highway congestion, and roadside noise are examples of other types of externalities, though not are large compared with the air pollution effects.

Economists call the existence of external costs a market failure because the market does not include them. The local gas station or the big oil companies are not going to raise prices to reflect these costs because that would put them at an obvious competitive disadvantage. So the person who suffers asthma or the residents of the Maldives Islands who are projected to be under water due to climate change pay the costs rather than you and I who are driving the car. Since we do not have to pay the costs we buy more gasoline and drive more miles than we would if we were held responsible for all the costs or our consumption. The market has failed one of its basic

functions – determine how much of a good or service to produce. In this case, the market produces more than it would if we all were paying our full costs.

So the concept of externalities is one powerful tool for thinking about the economics of environmental problems. It is the root of the preference that many economists have for taxes and fees to address some environmental problems. If you can estimate correctly the external costs per gallon of gasoline burned, a tax per gallon of that amount will fix the market failure. Of course it matters what you do with that tax revenue to be fair, but the tax will make the market more efficient in economic terms.

Should we not all take responsibility for the costs we impose on others?

Putting a Price on Nature

September 13, 2015
By Mark W. Anderson

William Cronon's classic environmental history, *Changes in the Land*, tells the story of the confrontation between European colonists and native people in what came to be known as New England. In the last chapter, "That Wilderness Should Turn a Mart," Cronon shows the clash in perspectives between two very different cultures regarding the great natural abundance of the region. The domineering European culture resulted in the "commodification" of resources that had sustained the native populations for generations on generations. Cronon argued that we live with the extensive ecological changes wrought by that change even today.

Commodification of nature was a product of the market economy that Europeans imposed on the peoples and landscapes of North America, a process historians have documented as a growing connectedness of the planet over the past several centuries. By the end of the 20th Century we reached a point where even committed environmentalists had come to focus almost exclusively on the commodity value of nature.

The history of environmentalism in the second half of the 20th Century shows how this came about. Rachel Carson's book Silent Spring is often credited with igniting the environmental movement of the 1960's. Carson clearly saw values in the natural world beyond the goods and services that nature could generate for humans. The movement experienced in 1970 its first political successes with the passage of an alphabet soup of Federal statutes to address environmental concerns including NEPA, CAA, CWA, ESA, CERCLA, FIFRA, and more. By the 1980s, despite great progress around environmental issues, the environmental community began to sense it was losing battles on important issues due to economic arguments. The fight over the effects of the endangered species status of the Northern Spotted Owl on timber harvest on National Forest lands was just one example of many. The response was to try to make "economic" arguments for the values of nature and environment protection. This led to dramatic growth in what has become known as **ecosystem service valuation**.

The logic of ecosystem service valuation is simple. If we keep natural areas undeveloped, they provide services for us that we would have to buy otherwise. An often used example are the thousands of acres of conservation lands in watersheds

North and West of New York City that provide the city's water supply without the need for elaborate filtration systems. The New York Department of Environmental Conservation estimates that this saves the construction of an $8-10 billion filtration system that would cost $1 million a day to operate. So the conservation land, which would have tremendous value for development in one of the richest regions of the world, provides services of such value that we are justified keeping the land out of development. Money talks when it comes to conservation

Despite this compelling example of how ecosystem service valuation can lead to large scale conservation, there are several problems that should make us cautious about the overuse of ecosystem service valuation to argue for conservation. While it is a useful argument to make sometimes, it should not be the primary justification for environmental protection and land conservation.

First, this approach has the ironic effect of actually de-valuing nature. It makes many people feel that nature is valuable only if it results in benefits to humans that are quantifiable in monetary terms. There are many potential sources of value, which I have written about with my colleague Mario Teisl. Focusing on just those of importance to individual humans that we can measure in dollar terms leads to ignoring the rest. Money values crowd out other values of equal or even greater importance.

Second, ecosystem service valuation has led to thinking about nature as something wholly of importance to humans. It leads people to ignore what some environmental ethicists call the intrinsic value of nature, nature's values without reference to humans. A good example of this is the argument in Science magazine by the chief scientist at The Nature Conservancy Peter Kareiva that nature has become "domesticated." Kareiva and colleagues suggest that this means our goal as humans is not to conserve nature but rather to "domesticate nature more wisely." Nature is conserved only to meet human needs.

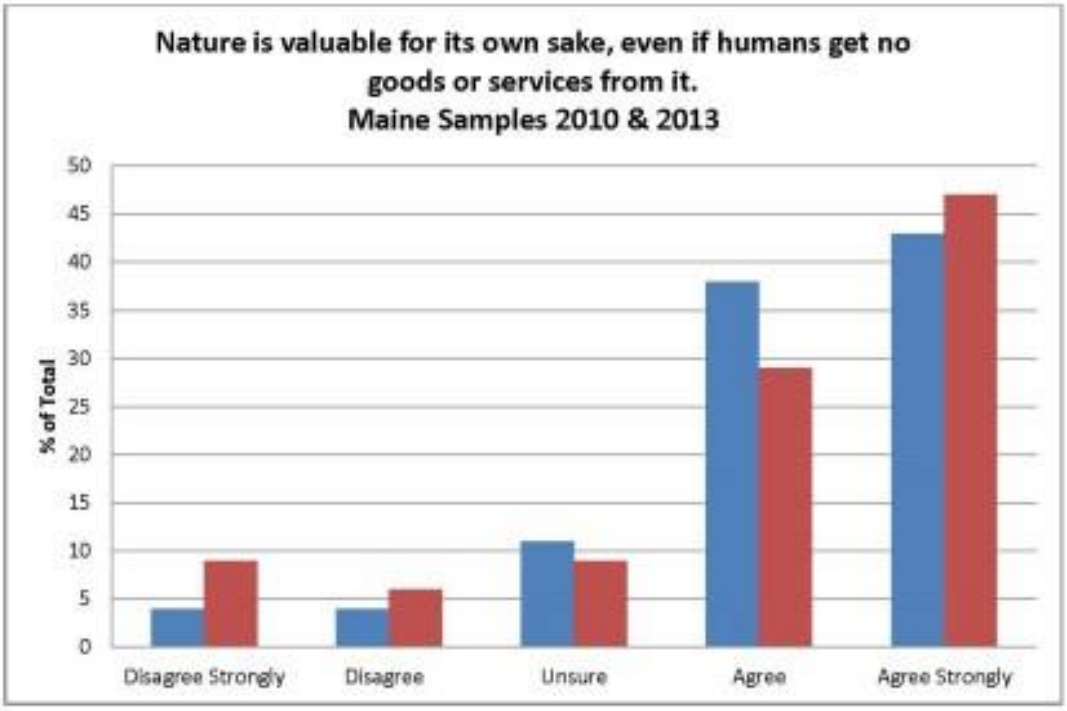
Third, the effect of this emphasis is to place the natural world into a framework where it is just one more resource to serve humanity. In economic terms, natural capital is simply one more input for the market economy like financial capital, technology, and labor. The obvious risk of this thinking is that market economies are very good at finding substitutes for inputs when they become more expensive (more valuable as measured by ecosystem service valuation). What then? The justification for conservation has now vanished.

Whale oil is a good example to think about this substitution effect. Whale oil was once a significant resource for the New England economy and had whales been valued in the 19th Century for their ecosystem services there would have been a compelling economic argument for their conservation. Once whale oil was replaced with petroleum distillates the ecosystem service value of whales diminished dramatically. If conservation appeals

had hung on the ecosystem service values then there would have been a much less compelling economic argument for conservation.

Going down the road of justifying the preservation of nature on the basis of its commodification is a slippery slope the environmental community should avoid. Some might argue that this is just one argument for protection of species and ecosystems. The risk is that by focusing on this one argument the debate ends up being about only this argument and all the other reasons we should be concerned about the decline of nature are lost.

Mainers get this. In 2010 and again 2013, in a research done as part of UMaine's Sustainability Solutions Initiative, I helped with a survey of the Maine population as part of a team led by Caroline Noblet. In this survey, we asked Mainers whether or not they agreed with this statement: "Nature is valuable for its own sake, even if humans get no goods and services from it."



As you can see in this chart, the vast majority of the respondents agreed or agreed strongly with this statement. There is no need for ecosystem services to justify the value of nature for them. Mainers understand that humans can fit gracefully into the natural world without having to control every inch of it for human needs. We do not need to commodify nature to protect it.

I Don’t Sign Climate Change Petitions

September 20, 2015
By Mark W. Anderson

Let’s start with the issue of climate change. I think the scientific consensus is compelling. The global climate and other fundamental aspects of global biophysical processes are changing and humans are a significant cause of many of the changes we witness. I believe human-induced global change is the most significant problem facing humanity today. We have an obligation to future generations to try to fix the problems we have created. The phenomenon of global change has been clear now for many years and we have collectively refused to confront this issue. You can see my preferred policy approach in an earlier blog.

That said, it surprises people when I refuse to sign petitions calling for various kinds of action that will supposedly address the global change issue. The most recent of these were the many petitions last year calling for colleges, universities, and public entities to divest of stocks in fossil fuel companies. An excellent example of the logic for this divestment movement comes from a group of Harvard Law School students (Harvard Climate Justice Coalition) who sued the university over this issue.

There are three reasons I think that fossil fuel divestment petitions not only will fail to accomplish their goals but also will be counterproductive. They lead us away from seriously addressing the issue.

First, it is not clear that having university endowments divest of holdings in coal and petroleum corporations will have any effect on the companies or their promotion of fossil fuel use. Assuming that a large enough number of endowment funds actually did divest, that might have a small effect on the price of fossil fuel company stocks. Such a share price effect would simply make the stocks more attractive investments for the many individuals and funds that were not part of the divestment movement.

Second, I do not see where the bright line is that makes fossil fuel companies the obvious target for such divestment, even assuming that divestment could affect company behaviors. Why not include automobile manufacturers, airlines, retailers, electric power producers, airplane manufacturers, convenience stores, parcel shipping companies, internet cloud server companies, or a host of other sectors whose business is inherently tied to the large-scale use of fossil fuels and thus are at the root of climate

change? Coal , oil, and natural gas producers are easy targets but no more obvious a part of the problem than many other firms that are central to our high energy society.

The reality is that fossil fuel use is woven into the fabric of modern society and targeting the producers of fossil fuels is misplaced. The problem is much deeper and you and I are at the root of it. That is why petitions drives like those over divestment are counterproductive. Behavioral economists have identified the phenomenon in human behavior that explains why this is so. It is called **moral licensing**.

Researchers in the area of environmental behavior have noticed this phenomenon in a number of different realms. People do something that they perceive to be good for the environment, recycling for example. That behavior or action creates what is sometimes called **a warm glow effect**. That is, they feel good about having done something good. This feeling then gives them a sense of permission (license) to do something that they know otherwise would not be good. So dieters who have kept their calorie consumption low for a number of days feel justified indulging in a piece of chocolate cake.

In a large class I taught for many years at UMaine on environmental issues, I remember one student who was challenged by the idea that climate change might mean that we all should use less fossil fuel energy. She said to me after class one day, "I recycle, what more do you want from me!" Recycling, to her mind, covered her obligation for good environmental behavior and gave her license to continue other aspects of her life that might have adverse effects.

I think petition drives like the divestment campaigns have this very effect. They are an easy way for people to feel they have made a statement and contributed to solving the climate change crisis. Once the petition is signed they have done their bit for climate change. Ironically, no one asking for us to sign these petitions discusses their purchases of goods and services provided by the very fossil fuel companies from which they are asking endowment funds to divest.

The reality is that on average Americans are responsible for over 20 tons of carbon dioxide emissions each year. (This does not account for our methane, HFCs, nitrous oxides, and other greenhouse gas emissions that are contributing to global change.) By one reasonable calculation, this level of per capita carbon dioxide emissions would need to be cut in half were we to make adequate progress on slowing human-induced climate change, just one part of the larger global change problem. Of course, to cut your emissions in half you would need to know what they actually are, which is why I developed a household carbon footprinting tool for estimating these emissions directly. Just knowing what emissions you are responsible for takes a lot more work than signing a petition.

So here is my deal. If you are no longer buying goods and services made from fossil fuels and your annual carbon dioxide emissions are less than 10 tons a year, come see me about signing your petition. We can talk. Otherwise, let's get serious about the very difficult work that faces us in creating an economy and a larger culture that can exist on this beautiful planet without changing it irrevocably.

Welcome to the Anthropocene

September 27, 2015
By Mark W. Anderson

Maine has been graced with many famous scientists, particularly in the summer months when they enjoyed the relaxation of Maine's coast, mountains, and lakes. Many people would think first of Rachel Carson when naming a famous Maine scientist, and her summers at Newagen certainly influenced her research and writing.

Less well known but equally important is Edith Patch, entomologist for many years at UMaine. Retired UMaine entomologist Cassie Gibbs' wonderful new biography of Patch documents her many contributions to Maine agriculture and to the global community of entomologists. Patch was the first woman elected President of the Entomological Society of America. Her 1936 speech to the society, "Without Benefit of Insects," still rings true today.

Gibbs captures the essence of Patch's view of the world with this quote:

"The desire to serve old mother earth and to protect natural beauty; so to live, that there may not be fewer pond-lilies and less arbutus in the world because she passed along the path; so to write that bumblebees may not be begrudged their nectar and the eagles may not be shot for sport or egrets slain for fashion."

In many ways Patch's view of how humans might relate to nature has now been eclipsed by the perspective of increasing numbers of us that nature is here to serve us. This is the essence of the idea floated by Paul Crutzen that we have now moved into a new geologic epoch, the Anthropocene. In this epoch, humans have become the great force of nature.

My guess from reading about Edith Patch is that she would be appalled by this idea. Not that she would think the description is wrong, for she saw in the first half of the 20th Century the growing adverse effects that humans had on insect populations. Rather, she would question whether we were capable of managing this new world where we, as a species, exercise such power.

I feel connected to Edith Patch in several ways, but foremost through her protégé Geddes W. Simpson. In 1982 when I first started work at the Maine Agricultural Experiment Station I met Geddes Simpson, who was then "retired." While Geddes no

longer was engaged in active entomology research, he was serving as the Experiment Station's editor and editor of the American Potato Journal. Geddes was an intellectual force of nature, a font of knowledge on Maine agriculture, particularly the potato industry, and a scrupulous editor. Many an experiment station author was spared from publishing sloppy writing or fuzzy thinking at Geddes' editorial hand.

Geddes was my direct link to Edith Patch; she hired him to be assistant entomologist at the experiment station in 1931. Simpson continued and extended Patch's foundational research on the relationship between aphids and plant viruses, particularly in potatoes.

And so, it is a great honor for me to have been asked to deliver the Geddes W. Simpson Memorial Lecture at UMaine. Simpson's family endowed this annual lecture series to explore the intersection of science and history. It is my pleasure to invite you to join me in this celebration of Geddes Simpson and his passion for better understanding our world.

UMaine's announcement of the lecture is as follows:

Resource economist to deliver Geddes W. Simpson Lecture

Resource economist Mark W. Anderson will speak about the state of human society in the 21st century during the 14th annual Geddes W. Simpson Lecture.

The senior instructor emeritus in the University of Maine's School of Economics will deliver "Open season on chickadees: A field guide to the Anthropocene" at 3:30 p.m. Monday, Oct. 5 in the McIntire Room of the Buchanan Alumni House on the UMaine campus. The talk is free and open to the public.

Anderson will draw on lessons from Big History and the science of global change to propose a "field guide" to help humans navigate the new epoch of the Anthropocene. The Anthropocene relates to the current geological age and is viewed as the period during which human activity has been the dominant influence on climate and the environment.

In 2001, Simpson's family established the Geddes W. Simpson Lecture Fund. Simpson was a well-respected faculty member whose 55-year career in the College of Life Sciences and the Maine Agricultural Experiment Station began in 1931. He chaired the Entomology Department from 1954 until his retirement in 1974. The lecture was established to support a series that highlights speakers who have provided significant insight into the area where science and history intersect.

A reception will follow Anderson's lecture.

Smart Enough to Chart Our Energy Future?

October 4, 2015
By Mark W. Anderson

Unlike Maine Governor Paul LePage, I believe that when it comes to energy policy you can "fix stupid," assuming we know who specifically needs to be fixed. The reality is that Maine's energy challenges are not as simple as the governor would have us believe; they are part of a much larger national and global complex of physical, social, and economic issues. The first step to getting smart about energy is understanding how we got to where we are today.

Alfred Crosby explores this in his compelling history of the human use of energy – *Children of the Sun: A History of Humanity's Unappeasable Appetite for Energy (Norton, 2006).* Toward the end of this superb survey he concludes, "We of the first years of the twenty-first century have access to more energy than we have the experience to wield intelligently."

Crosby is not the only historian to tell the story of how humans have used increasing amounts of energy through history, but his is the best place to start if you want to learn history's lessons for energy policy. This is the story of humanity's "movement up the great chain of energy," in the words of another historian, Ian Morris.

The beauty of Crosby's book is that he reminds us of basic facts we know (or should know) but forget because our lives have become separated from the physical realities of that energy we use. We are "children of the sun" and rely on the flows of energy from the sun for virtually all the work and play of our lives. This reality is central to understanding the growth of human societies and the challenges that face us in the future.

At their roots, fossil fuels (coal, oil, and natural gas), hydroelectric power, solar collectors, and wind power all are different forms of the sun's energy transformed to meet our needs. The only exceptions to the sun's role in modern energy use are either trivial in terms of energy production (geothermal and tidal power) or deemed by many people to be too dangerous for us to pursue (nuclear fission). The hope that we might mimic the sun and harness the power potential of fusion power is still far from being realized.

Crosby is a great story teller and he details how humans have continued to find ways to tap into the flows of the sun's energy to get more food and increase the numbers of our species. The first breakthrough was the use of fire, which made more food available to hunter/gatherers simply because more of the plants they found could be made digestible through cooking. Nevertheless there still could not be many humans on the planet simply because it was hard to find enough edible plants and plant-eating animals. Crosby reminds us of what we might have forgotten from our high school biology classes. Those plants literally convert the sun's energy into food through the miraculous process of photosynthesis.

The next big breakthrough, about 12,000 years ago, was domesticating plants and animals to capture the sun's energy more efficiently. Our ancestors transitioned from hunter/gatherers to farmers. They became skilled at concentrating solar energy into plant and animal species using less land and thereby "plugging into the sun." As humans became better farmers we captured more energy and our numbers grew, slowly and fitfully until about 1700.

The next big step happened in the 18th Century when humans (particularly in Scotland, England, and Wales) discovered that plants and marine organisms had captured the sun's energy millions of years ago. Those plants and marine organisms became the concentrated energy we call fossil fuels. Crosby explains, "Humanity always wants more power in smaller units of volume and weight, and of portability." His description of the Industrial Revolution and its aftermath is cursory but effective in showing how here too the sun's role is central. The only difference was that industrial society figured how to use ancient solar energy that had been concentrated over time into wonderfully useful fuels. Human society mushroomed to the over seven billion of us crowding the planet today.

We are at the point for most Americans where energy is not something that we have to think much about. The gas station has gas to fill the tanks of our car. The lights come on when we throw the switch. Homes are heated or cooled. Food is in the stores or at the farmers' market. What Crosby makes clear is that we do need to think more about this, first by understanding how we got to where we are. Despite what technological optimists tell us, there are not easy renewable energy resources just waiting for us to cut through some political barriers to adopt them. There is nothing on the horizon with the easy portability and energy density that made fossil fuels so effective at getting the sun's energy to power our abundant lives.

When I was younger, I remember the first energy technology promise of my lifetime, that of the nuclear power industry. Electricity from nuclear power was going to be "too cheap to meter." Since then, we have heard one false promise after another about technological solutions to energy problems. Too many of these were accepted at the time because we did not collectively understand the history of our use of the sun's

bounty. Crosby's book is a good place to start to get that understanding back. It would be a good read for the Governor so that he could start to fix stupid.

Open Season on Chickadees

October 11, 2015
By Mark W. Anderson

It was an honor to give the Geddes Simpson Memorial Lecture at UMaine last week. In the lecture I put forth the proposition that the State of Maine adopt an open firearms season on chickadees under which every holder of a hunting license could shoot an unlimited number of chickadees during the year. After all, the black-capped chickadee is the Maine State bird; Mainers could honor their state by having a stuffed chickadee bagged in the season displayed on the mantle at home. Chickadees might well taste good, though I suspect the amount of meat per bird is small. Filet of chickadee could rival the lobster as an iconic Maine menu item in upscale restaurants. Imagine the bragging rights of hunters who could show their firearms prowess by harvesting (the euphemism for hunting wildlife in Maine) a bag full of chickadees.

Of course, I was being facetious. The intent was to show that the idea of an open season for a song bird species seems pointless, even shocking to some people. Yet we have, effectively, an open season on chickadees and all other bird species in Maine and in every other state in the nation. Recent research by Scott Loss and colleagues reported in the journal *Nature Communications* suggests that free-ranging cats kill over a billion birds a year in the U.S. and maybe as many as 4 billion. That is right, **billion with a B**. About two thirds of this "harvest" is by feral cats with the rest by cats whose owners let them go outside.

One point of this proposition was to show how many modern humans find shooting song birds to be unacceptable but at the same time find bird mortality at the paws of cats a regrettable but unavoidable artifact of modern life. Our love of cats trumps our regard for wildlife.

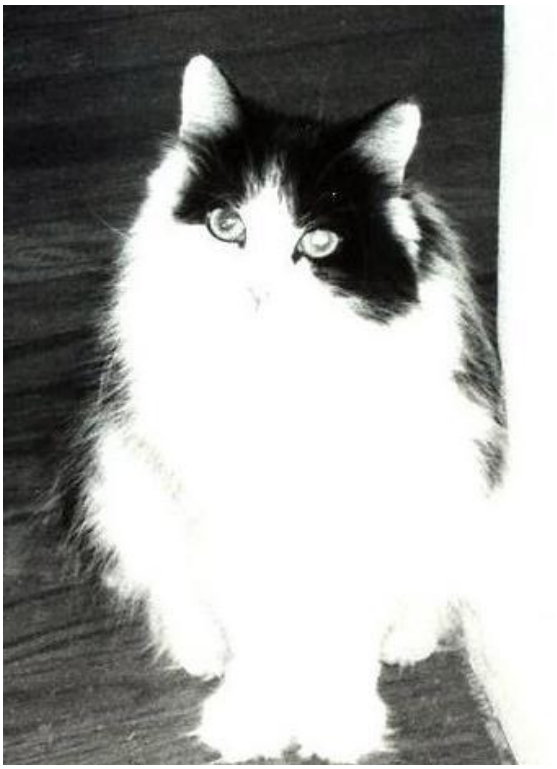
For me, this is a prime example of our transition in the modern world to this new epoch, the Anthropocene. Humans, through our cultural adaptations, have now become the great force of nature. The problem with this is that we are still acting like we are not so empowered, like we cannot affect that natural world in any meaningful way. So, despite overwhelming evidence of global climate change at the hands of humans, deniers still claim that humans are too insignificant a factor to affect something so big as the Earth's climate.

The challenge from this shift to the Anthropocene is that by not accepting that it has happened we fail to make the ethical changes needed to cope with the new reality. Bryan Norton says this best in his book *Sustainability*:

"What has changed in recent history, long after our moral codes were developed, is the human ability to employ pervasive and powerful technologies, as humans exert more and more dominance over natural systems. The effect of these changes on human morality is that we live in a hugely expanded moral universe of human responsibility." (emphasis added)

So when we let our house cats roam outside and allow feral cats free range in our landscapes, we do so pretending that it has little or no effect on the natural world and that such behavior by cats is, indeed, "natural." Of course, cats have been domesticated for centuries (or perhaps they have domesticated us). So there is nothing inherently natural about their slaughter of birds. And more to the point, this behavior is a something for which humans should take responsibility. We are not innocent bystanders.

Cats are precious, but so are birds. It is not for us to choose the wellbeing of one species over that of another. The new reality is that we have developed tremendous powers as a species that requires we become both smarter and wiser. The first step in this is to acknowledge our new-found role on this planet and develop the moral compass we need to navigate the landscape we are creating.



National Park Yes/National Park No

October 18, 2015Environment, Opinion, Public Policy, Recreation
By Mark W. Anderson
Save

The week before last we took two day trips that reminded us of why Fall is the best season in Maine. First we visited the new unit of Acadia National Park, Schoodic Woods. Next day we took a hike in Baxter State Park. We enjoyed lunches in two of the most scenic spots in Maine– a picnic on the rocks at Schoodic point and a meal at River Drivers restaurant with it stunning view of Katahdin.

The trips also got me thinking about the proposed Katahdin Woods and Waters national park and national recreation area. Two issues are important to deciding whether a new national park is a good idea. What would a new park add to Maine's opportunities in our vast forest resources? Who should get to decide whether this is the right thing to do?

The roadway from I95 to Baxter State Park was festooned with signs, mostly "National Park No" or "No Park for ME," with a few "National Park Yes" scattered along the way. If road signs numbers matter, Millinocket and East Millinocket residents are not big supporters of the proposed new park and recreation area. I was struck that there were no "National Park No" or "National Park Yes" signs on the Schoodic Peninsula. The residents of Winter Harbor and Gouldsboro see no need to express their opinions on the presence of an addition to the national park in their neighborhoods, perhaps because it is a *fait accompli* or there is little division in the towns on the value of national park lands in their communities.

I also was struck by the differences in experiences between Schoodic Woods and Baxter State Park. The National Park Service is very good at developing campgrounds, hiking trains, and bike ways that are central to recreation in the new landscape. Baxter State Park, keeping to Governor Baxter's "forever wild" vision, is a much more rustic experience. And of course the size of the two parks is very different. Baxter is much bigger and much more remote. What I think our day trips tell me is how a new Katahdin Woods and Waters Park would be different from Baxter in the types of outdoor recreation experience it would offer; it would be more developed, more accessible, and would draw more visitors from away than come to the Katahdin region now. This diversification would address what I have termed the Myth of Pinchot, the idea that Maine's North Woods can be managed as multiple use forests and provide all uses to all users all of the time.

Our day trips also pointed out that one of the real quandaries posed by the new park idea is figuring out whose opinions should matter in deciding whether the park should be established. Much of the land that would make up the park is currently owned by Elliotsville Plantation, a foundation created by Roxanne Quimby. If the foundation, as a private landowner, wants to give its land to the Federal government to establish a park, isn't that just another exercise of private property rights, just like deciding to manage the land for timber production? Of course, we have well established in Maine that land owners do not have unlimited property rights and that there is a public interest in limiting how people exercise those rights. So which "public" should we listen to?

Shouldn't the people of Medway, Millinocket, and East Millinocket get to decide? These communities have suffered from the consolidation of pulp and paper mills in Maine and some of their residents feel like a new park will inhibit the return of the well-paying jobs that are central to their heritage. The new park idea threatens the very cultural foundations of these communities. Like many communities, these towns exhibit an attribute that economists call status quo bias. They prefer things to stay as they have been. On the other hand, unlike Winter Harbor's circumstance, the lands proposed for the new park and recreation area are not actually in Medway, Millinocket, or East Millinocket. Does that matter?

Perhaps the Penobscot Nation should be consulted. The Penobscots are the descendants of the first immigrants to this region, which gives them some priority in matters of importance to how the lands are used.

Or maybe the people of the larger Kathadin region should have the most input. Of course, we would have to decide just who counts as residents of this "region." Recent survey data from Critical Insights show that the majority of residents in "Northern Maine" (defined as Aroostook, Penobscot, Piscataquis, and Somerset Counties) support the national park idea. Support in these counties is nearly as great as the statewide average – 60% of all Mainers support the idea while 20% oppose it.

For me, all of this leaves out at least one important group, people of the future. What will the future think of us if we establish a national park in Maine's North Woods? Will they be grateful or regret our decision? Of course, we cannot ask them directly, but we can do more than guess what the future might think.

As part of a larger project led by UMaine economist Caroline Noblet, I helped in a study designed to see how thinking about historical events might change how people think about policies with future implications. The idea is that those of us alive today are those "future people" for whom our ancestors made decisions. One question we asked in this study was, how does thinking about Governor Baxter's gift of his land to the people of Maine affect how people think about the gift of land for a new national park today. The results were published in the technical journal Ecological Economics.

Two of our findings are relevant here. First, the vast majority of Mainers (89%) said that they were grateful for the gift of the park that Governor Baxter made to Maine. Second, thinking about the legacy of Baxter made Mainers more amenable to the idea of Elliotsville Plantation giving land today to establish a new park. The wrinkle in our findings was that thinking about Baxter's gift of a park made Mainers more likely to think the new park should be a state park rather than a national park.

The North Maine Woods is large enough to generate forest products, rustic recreation opportunities, and more developed facilities like those offered by the National Park Service. Maybe there is even room for some wilderness, which using the criteria set under the National Wilderness Act of 1964, there is virtually none of in Maine. It will only be by segregating uses, transcending the myth of multiple use forest management, that we will generate the most public good from this vast and important resource.

If the survey takers call tonight, put me down in favor of a National Park in Maine's North Woods.

Toilets and Tourists

October 25, 2015
By Mark W. Anderson

Maine spends millions of public and private dollars a year attracting tourists, providing them memorable experiences, and trying to lure them back for another visit. Most of that we do very well and tourism remains a keystone to our economic wellbeing. There is at least one thing we do poorly – toilets. The state motto seems to be, "Maine – **Just hold it**!"

Having reached "a certain age," travel invariably entails planning for toilet stops. Grocery stores, libraries, hospitals, and convenience stores (think Irving) will do in a pinch. But I make note of the towns and regions where well-maintained public toilets serve the need. These are places I want to go back to; I can concentrate on enjoying what they have to offer without having to scour the countryside to find toilets. Probably families with kids would feel the same way about toilets as baby boomers do.

What makes good facilities? They need to be designed to handle the demand comfortably; there needs to be signage to help you find them; they need to be open more than just the high season, particularly if we are trying to extend the tourist economy into the shoulder seasons; and they need to be cleaned. Some places in Maine really get this, while others fall far short. Here is my report card on a few places to which you might take a day trip from the Bangor area.

I-95 southbound in Newport. Grade: **F**. Let's get this one out of the way first. Why the DOT closed this a few years ago and left the Hampden facility open is beyond me. Even in days when my plumbing was more robust, the Newport facility was a necessary stop when heading South, particularly after that morning coffee. Now there is nothing until the Gardiner facility (and you need a registered Maine guide to navigate in and out of this place). Funding to keep this place open is a matter of priorities, and I would think servicing the most basic needs of the people who vacation in Maine might be a priority.

Bar Harbor. Grade: **A**. More than anywhere else, this town gets it. There is an adequate year-around facility by the town green and a sumptuous one up the hill from the waterfront which is open seasonally. The only nicer facility I have encountered (would that be a hoity toidy?) is at the Northeast Harbor dock.

North Maine Woods Jo-Mary gate house. Grade: **B**. This is a good old fashioned outhouse, but it earns its grade. It is well located, clearly signed, and kept in excellent condition.

DOT facility on Route 9, Township 22. Grade: **D-**. The passing grade is only because there is a facility here, half way between Bangor and Calais. The place is crudely built and less well maintained. Hold it if you are able.

Belfast. Grade: **C**. The facility at the town dock is adequate and adequately maintained, but it is only open seasonally. Belfast has done so much to re-invent itself from its poultry processing days, good toilets open year around would be the next big step. Camden's facility is not any better than Belfast, but at least it has winter hours. Town leaders from both towns would do well to visit Bar Harbor for advice.

Schoodic Point. Grade: **A**. Acadia National Park has several well-maintained seasonal facilities on the Schoodic Peninsula and the exclamation point is the "one-holer" at the entrance to the Schoodic Institute. Open year around, clean, and convenient, it makes winter visits a treat for locals and tourists alike.

Greenville. Grade: **C.** Well-located near the Mount Katahdin steamer, these are adequate to the task but seasonal facilities.

I could go on, but you get the idea. I am sure that many people can share what they think are good and bad public toilet facilities around the State of Maine.

Toilets are a dirty business. They are expensive to build and maintain well. I can hear public officials now crying about the costs. But toilets are essential to making our visitors feel at home with us in Maine. If we want them to come back, we need to stop telling them to just hold it. If funding is the issue, then let's add a penny to the gasoline tax from May to October and create a dedicated fund for the construction and maintenance of toilets and signage directing our visitors to good facilities. We can call it the toidy tax. Funds could be disbursed the way the extra gas tax dedicated to snowmobile trail maintenance is disbursed. A cost-sharing program could help provide funding for those towns willing to collaborate on local public toilets.

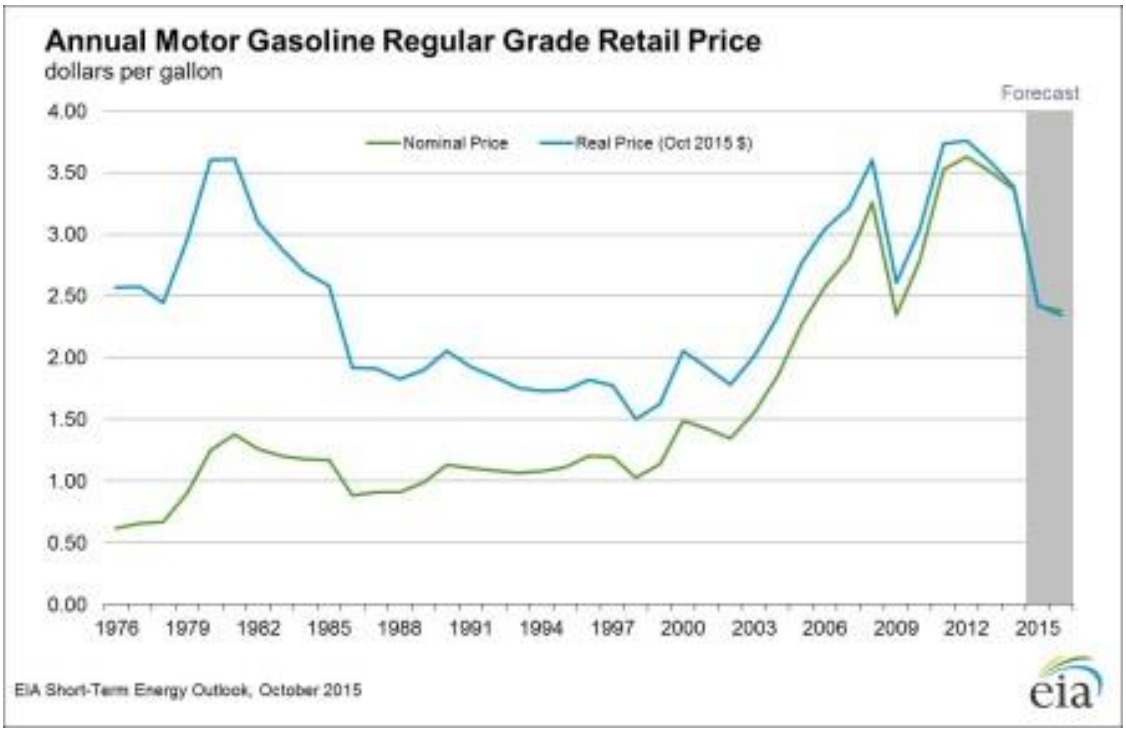
The toilet is the overlooked and underappreciated part of successful tourism business. Investing in toilet infrastructure, if the concept can be thought of that grandly, will pay big dividends in the form of happy visitors. And if we build the toilets for the visitors, everyone will better enjoy traveling around Maine.

Now Is the Time to Raise the Gas Tax

November 1, 2015
By Mark W. Anderson

It is never a good time for legislators and governors to raise taxes, particularly if you ever hope to run for public office again. But taxes are necessary evils in societies that provide their citizens public goods, like roads, schools, parks, and national defense. Motor fuels taxes, more often called the gas tax, are particularly unpopular. They are so unpopular in Maine that the Legislature indexed the tax to inflation, so that funds for highways would keep up with rising costs, and then promptly reversed course because of public pressure.

If we are ever to raise the gas tax, there is no time like the present. According to the U.S. Energy Information Agency, the price of gasoline in "real" terms, corrected for the effects of inflation, is cheaper now than it has been for over a decade and cheaper than it was before the so-called energy crisis of the 1970s. Americans are saving a lot of money that they were spending on gas a few years ago.



JP Morgan Chase Institute used credit card expenditure data to estimate how Americans were responding to sharply lower gas prices. The average American was estimated to be saving hundreds of dollars a year. Americans also appear to be spending most of these gas cost savings rather than saving them or paying down household debt. The study suggests that 20% of the savings in gas costs are going to buy more gasoline and 80% are going to expenditures on other goods and services.

We should not be surprised that lower gas prices lead to buying more gasoline. This is a fundamental assumption about human behavior for economists. All else being equal, lower prices for a good or service lead to an increase in the quantity demanded. (That is why the "demand curve" you learned about in principles of economics had a negative slope.) Price has a powerful effect on how people behave.

The one category of things that do not get increased when gasoline prices go down is the public good. All of the savings go to private expenditures, essentially making individuals richer, but not making us collectively richer. That is the basic logic of why this is the best time to raise the gas tax. When gas prices are lower is the time that a higher gas tax will have the least impact on private consumption.

Raising the gas tax now will have several public benefits. First, it will allow us to begin to spend more on transportation infrastructure repair and replacement. In my earlier blog, Maine Roads Stink, I showed how gas taxes are fairer and less expensive ways to fund transportation infrastructure than the ever popular general obligation bonds Mainers love. (I will be voting against Question 3 on the November ballot.)

Equally important, higher gas taxes send a signal to consumers about the adverse spillover effects that come from burning gasoline in our cars, the topic of another one of my recent blog posts. Gasoline burning is the primary cause of smog production (from a mechanism atmospheric scientists call tropospheric ozone production). Burning gasoline is a significant contributor to carbon dioxide emissions that are the largest contributor to human-caused climate change. Gasoline consumption is part of the global trade in fossil fuels that increases American diplomatic and military costs to secure our access to energy in a form that is most useful to us. Higher prices will equal less gas purchased and thus fewer adverse effects.

A gas tax increase should be just one part of a broader system of taxes on carbon-based fuels. The clear signal that it sends to consumers will certainly result in less consumption and therefore cleaner air and less climate change. And when gas prices are this low, it is clearly the least painful time for Americans to begin to deal with what is the greatest danger to our future.

Signing fossil fuel divestment petitions (I don't) and supporting alternative energy strategies make us feel good while we continue, or increase, our behaviors

which are at the root of the problem. Let's take some of the savings from lower gas prices and spend them so that future generations can enjoy something like the lives we enjoy today. An increase in the gas tax will allow us to do this.

Confronting Climate Change Denial

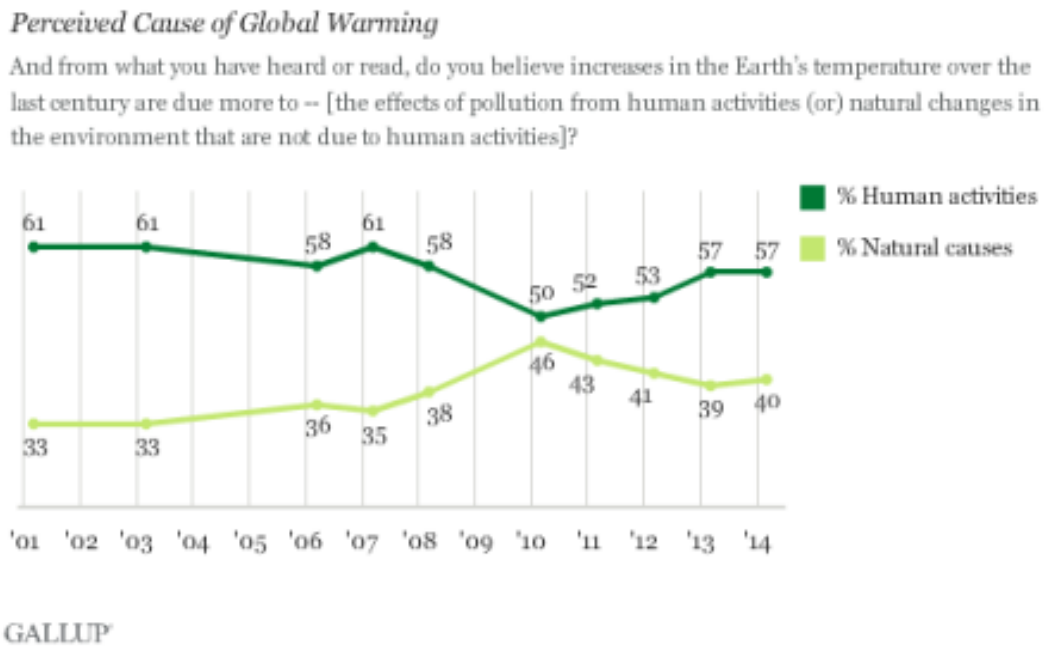
November 8, 2015

By Mark W. Anderson

Scientists who study the climate system or the impacts of climate change on other environmental or social systems are often surprised at the level of public skepticism about the human role in climate change (anthropogenic climate change in the jargon of science). Scientists are particularly puzzled by the aggressive rejection of climate science by a segment of the U.S. population that has come to be known as climate change deniers.

Some people equate the phenomenon of climate change denial to the fierce rejection for decades to the scientific consensus that tobacco use contributed significantly to lung cancer, heart disease, and other health problems. In their book Merchants of Doubt, Oreskes and Conway suggest that some of the very same interests who questioned tobacco's role in causing disease are also behind the climate science denial movement.

Americans have long held scientists in high esteem and are grateful for their contributions. The Pew Research Center finds that "79% of adults say that science has made life easier for most people and a majority is positive about science's impact on the quality of health care, food and the environment." But one area where there is a huge divergence between the population and the scientific community is on climate change. There is broad consensus in the scientific community that climate change is happening and that humans play a significant role in causing that change. Yet many Americans remain skeptical or in denial about the human role in climate change, as we can see in these Gallup survey data:



For social scientists the obvious question is: if Americans generally trust science, why do they deny the consensus among scientists about global climate change? There are several potential answers to this question, but two relate to the underlying psychology of the climate change problem.

First, climate science is addressing a problem rather than an opportunity for technological advancement. The complexity of the global climate is like that of the human body. But biomedical science offers hope that we can fix health issues using science that leads to new technologies. Climate science is identifying problems for which there are no easy technological solutions.

Second and even more to the point, climate science identifies problems for which the potential solutions threaten core values that many Americans hold. This is called the solutions aversion problem of climate change policy. The idea, developed by psychologists Campbell and Kay, is that when the obvious solutions to a problem violate a person's core values (what I might call their world view) a natural response is to disbelieve that there is a problem. Climate change caused by humans clearly requires collective restraints on individual behaviors (we all need to produce fewer greenhouse gases). So, if you fundamentally object to any collective actions and believe the individual and free markets are paramount, you deny that the problem exists. Your aversion to climate change solutions leads you to deny the problem.

Why do I believe that humans are a primary cause of climate change? Because I have a basic understanding of how science works and I broadly trust the process. Just as biomedical science yields improving understanding of the complexities of the human

body, so too does climate science lead us to a greater understanding of the global systems our lives depend on. Trusting climate science is the same self-interested behavior as trusting biomedical science.

Neither biomedical or climate science has led us to a perfect understanding of what is being studied. The human body and the global climate are too complex to get everything exactly right. But our understanding continues to grow.

Climate scientists use knowledge developed in the past to develop hypotheses. For example, we know that certain chemicals in the atmosphere tend to hold heat close to the planet for longer than that heat would be there without those chemicals. These chemicals are the so-called greenhouse gases, including carbon dioxide and methane. The hypothesis is that if there are more of these chemicals in the atmosphere more heat will be kept in for longer, like throwing another blanket on the bed on a Maine January night. More heat would then cause other changes in the climate system like increased rainfall. Now we have a simple hypothesis to test and climate scientists have been doing this type of hypothesis testing for decades.

But testing is not the end of the story. Scientists need to convince other smart scientists that they did their work correctly and that they drew the right conclusions from their research. We call this peer review. Scientists carefully examine each other's work before it can be "published" in scientific journals. Reviews are usually rigorous and much more challenging than the comments one gets to blogs posted in the Bangor Daily News. (Comments also tend to be more civil than those posted in newspapers.) Research results only see the light of day if other scientists approve of it. I can attest — the process is no cake walk.

The system is not perfect, and sometimes research that is mistaken is published. And more often than not, the poor research that gets through the system is generally repudiated. When it comes to climate change, the science that survives this peer review supports the fact that humans have a significant role to play in causing the problem. Scientists who publish more are more likely to believe that humans are causing climate change. Other Gallup data show this:

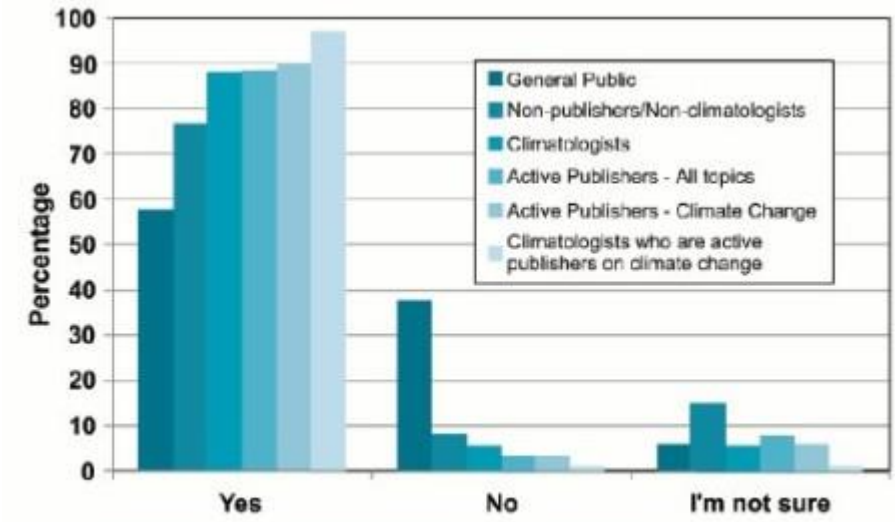


Fig. 1. Response distribution to our survey question 2. The general public data come from a 2008 Gallup poll (see http://www.gallup.com/poll/1615/Environment.aspx).

We need to pay attention to what scientists are telling us before it is too late. Let's not be like those who rejected the science on tobacco use because they were averse to the solution, the need to give up smoking. The stakes here are just as high.

Three Questions About the Ethics of Wildlife Management

November 15, 2015

By Mark W. Anderson

Bob Duchesne's radio program on 92.9 The Ticket is a regular part of my Saturday morning routine. The show is informative, entertaining, and gets me thinking. The Saturday, November 9 show focused on the big game management planning process now underway at the Maine Department of Inland Fisheries and Wildlife (IF&W). After listening to the show, I pondered three questions about wildlife management.

First, does the very idea of wildlife management mean that the ends justify the means when it comes to wildlife? It was hearing the discussion of last year's bear hunting referendum that provoked this question for me. In the spirit of full disclosure I, along with nearly 48% of the other Mainers voting, voted to ban bear hunting with bait, dogs, and leg hold traps. My vote was not because I thought all three forms of hunting bear should be illegal, rather my objection is primarily to trapping bears. I object to the idea that it is sporting to trap a bear in a leg hold trap and have it wait up to 24 hours for the hunter to shoot it. For me that is not sport, it is repugnant. Had the Maine Legislature banned trapping after the 2004 referendum vote I would probably not have voted Yes in 2014.

IF&W's response is that all three methods of hunting are "necessary" to achieve the department's management goals for Maine's bear population. In this thinking the ethics of hunting methods are not relevant as long as the agency can achieve the desired annual "harvest" of bears. The ends (a given number of bears) justify the means (shooting an animal with no means of escape).

Second, does the fact that IF&W's primary funding comes from consumptive wildlife users, those who pay license fees, mean that the agency's focus is enhancing opportunities for consumptive use? I think the answer to this is obvious even though two statements from the agency's mission statement suggest otherwise. The department asserts that it:

- conserves, protects, and enhances the inland fisheries and wildlife resources;
- increases opportunities for the use of these resources by all people;

Again, let me give a personal example to illustrate why I am skeptical that the department does this. I love encountering coyotes in the woods and thrill at the nighttime howling of a pack of coyotes near our house. I think other Mainers feel the same. However, IF&W allows coyote hunting during daylight hours (except Sundays) throughout the year and permits coyote hunting at night from December 16 to August 31. There is no bag limit on the number of coyotes you can shoot. The logic is that since coyotes kill some deer and may kill livestock, we should reduce their numbers as much as possible. The agency encourages killing coyotes because they kill a species that licensed hunters want to kill themselves.

Game species (deer) trump non-game species (coyotes) because the sale of licenses is the agency's primary source of income. If the agency were funded out of the general fund and license fees were not dedicated revenues, the agency would obviously need to be responsive to a broader constituency than just consumptive users. For economists, this is a phenomenon we see in the public sector termed regulatory capture. An interest group (consumptive wildlife users in this case) employs some technique to "capture" a public agency so that the agency favors the concerns of that group rather than the broader public interest. We might ask, whose values count?

Third, does management of wildlife make it less wild? This was the most fundamental question that Bob Duchesne's show provoked in me. At what point does the management of wildlife effectively lead to it becoming no longer wild, almost domesticated? Wildlife management entails changing the rules of "harvest" (season, method of hunting, bag limits, gender of the species to be hunted), manipulating habitat, or even replacing fundamental ecological processes. A good example of this is Atlantic salmon restoration. We use fish hatcheries to raise salmon fry to release into rivers that we previously so damaged they no longer support natural reproductive cycles. Are the salmon that survive and return to where they were released still wild fish or aquaculture fish?

At some point, management actions so change the natural environment and favor one species over another that wildlife is no longer wild in any meaningful sense. I am not sure what that point actually is, but it does leave open the possibility that the very idea of wildlife management is an oxymoron.

In last November's bear referendum we were constantly told by IF&W, as it politicked for a No vote, that bear hunting is purely an issue of science and the agency is the best arbiter of what is scientifically correct. Is this is a too narrow view of wildlife management? Ethics and values play a central role here as well; yet it is difficult to talk about differences in our values. Should have those conversations as IF&W does its planning for the future?

A Thanksgiving Greeting: Living Poorly in the Land of Riches

November 22, 2015

By Mark W. Anderson

(A version of this ran as an OpEd in the Bangor Daily News on November 24, 1994. The changes here update the data on inequality and income.)

In his book, "Changes in the Land," historian William Cronon details how Native Americans and early European colonists of North America used and affected the landscape. One of the puzzles that faced the colonists was the apparent poverty of the Indians amidst a land of seemingly boundless natural wealth.

Some early European observers concluded that the poverty of the native populations was due to their failure to "improve" the land. Their lack of improvement, reliance on mobility to take advantage of ecological variability over the seasons, and few material possessions all looked to the Europeans as signs of idleness, a lack of industry.

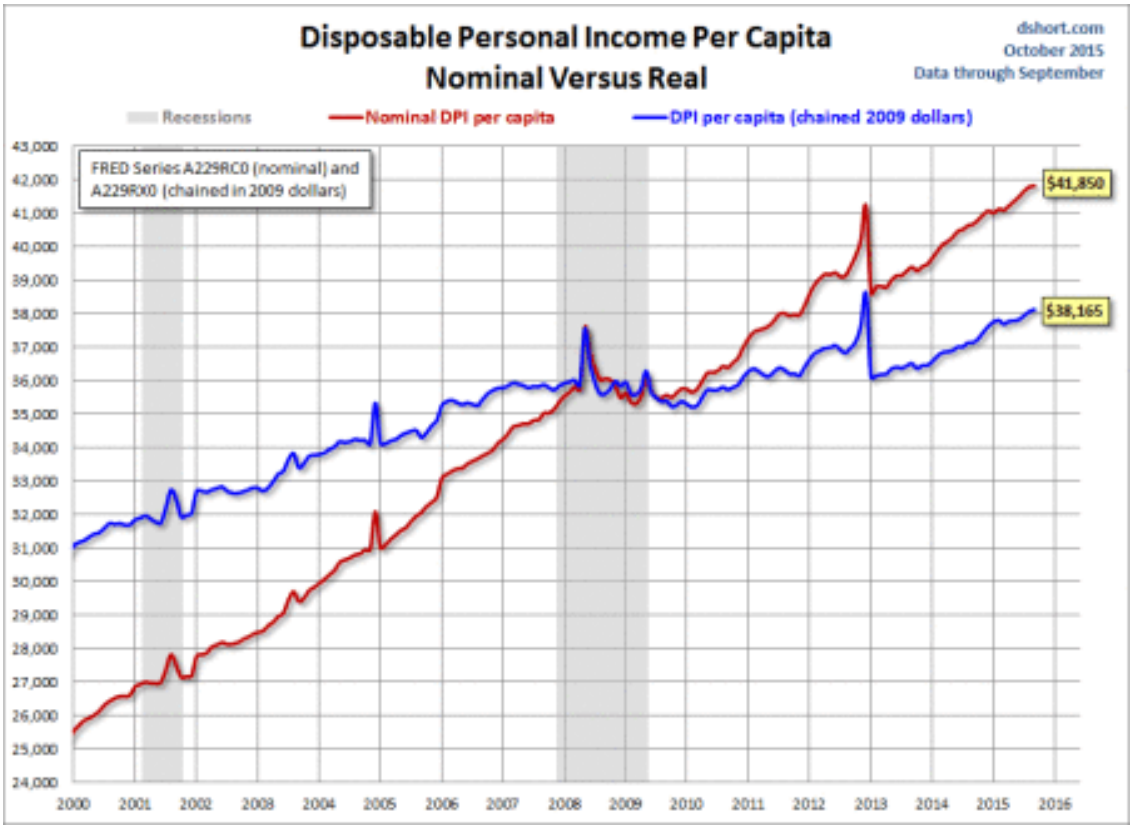
The only problem with this idea was that the Indians who greeted the early colonizers did not see themselves as poor. Their lack of material possessions was a logical accommodation to a lifestyle centered on annual migrations that took advantage of the natural variations of the New England landscape. If the historical record can be believed, the natives encountering the Europeans did not "feel poor" at all. They had few wants, wants that were readily fulfilled by the natural bounty of the region. Few wants, readily satisfied, left a people content with their existence.

Cronon points out that Thomas Morton, a keen contemporary observer of the situation, saw that this attitude posed a challenge to his European colleagues. As Cronon says, "… If Indians lived richly by wanting little, then might it not be possible that Europeans lived poorly by wanting much?" Indeed, this is a question we might do well to answer for ourselves today.

Economic anxiety continues to pervade our society and we know the upcoming presidential election campaign will focus on jobs and income inequality.

The puzzle in current discontent is just the opposite of that which Cronon talks about in his book. How can people so apparently rich as we are feel so poor, so discontented? Perhaps like the European colonists we live poorly by wanting much.

By almost any comparison to other peoples or other times, the average American household is well off indeed, at least as measured in dollar income terms. Our levels of consumption are higher than the generations before us and higher than people anywhere else in the world. The data show this. Per capita disposable personal income is near an all-time high in this country, whether measured in constant or current dollars. The anecdotal evidence supports this as well. The worry in the business press is that the coming holiday season will be a disappointment, which means that the dollar value of retail sales will not grow as much as it grew last year. Not consuming ever more makes us feel poorer.



This discontent, which is particularly obvious in the middle class, comes from two sources. First, we have convinced ourselves that our well-being is a function of how much stuff we consume. We live poorly by wanting much and by wanting ever more. We seem to be in a constant state of "the day after Christmas letdown." The more we possess, the more disappointed we become.

The second source of our discontent is the increasing economic inequality in our society. Over the past 35 years there has been a steady shift in the shares of income in American society from the middle class to the very rich. The result is that now our income distribution is clearly the most unequal among industrial societies and the most unequal that it has been in our history.

This income inequality is clearly part of the problem. Many of us envy the consumption of the wealthy. Marketers use that envy to encourage us to buy their products so we can emulate the rich. Financial institutions encourage us to borrow their funds to make these purchases. At the same time we fear the poverty of the increasingly poor in our society, an anxiety rooted in the fact that we might fail to pay those credit card bills and have to give back all that stuff we buy in hopes of feeling rich.

The increasing income inequality makes the discontent of the middle class even worse. Despite consuming more material goods than our grandparents ever could have imagined, we are not getting as much as the wealthy. We are not concerned that the incomes of the poorest in our society continue to fall below levels where they can meet their basic needs. Rather we fret that we are not getting as big a piece of the action as those at the top.

So, in the midst of riches undreamed of even a generation or two ago, we live poorly by wanting much. Perhaps in this season of thanksgiving we could become more content by emulating the natives who first settled in this bountiful land of ours. Like them, we might live more richly by wanting less.

Chatting About the Ethics of Wildlife Management

November 29, 2015Opinion, Public Policy, Values, Wildlife

By Mark W. Anderson

After my recent blog on the ethics of wildlife management, I got a call from Bob Duchesne. Bob is a birding tour guide, Legislator, and host of the weekly radio show Bob Duchesne's Wild Maine. Bob suggested that we sit down and discuss some of the issues that my blog raised for him. I think we both had an enjoyable time and I am happy to share with you the show that ran on Saturday morning November 28.

Chatting with Bob reminded me of the many good books on this issue that I had the delight of exploring with UMaine students over many years. I think all such conversations are rooted in the debates between John Muir and Gifford Pinchot over a century ago. One of the best books covering this bit of American environmental history is Roderick Nash's Wilderness and the American Mind. Some people argue that the differences between Muir and Pinchot were reconciled by Aldo Leopold, considered to be the father of wildlife management. Leopold's classic on ethics and wildlife is A Sand County Almanac. I am always surprised by the way in which people with fundamentally different views on wildlife cite Leopold as the basis of their thinking. Contemporary environmental philosophers have been engaged in wide ranging discussions of these issues. For my money one of the best is Bryan Norton of Georgia Tech. A good place to start with his work is the book Toward Unity Among Environmentalists.

Of course, Alfred Hitchcock had important things to say about the ethical questions around human use of wildlife.

One goal of the chat Bob and I had was to explore how we see the world of wildlife differently. Only by understanding each other in this way and getting differences in our fundamental values out on the table can we have good conversations and ask the right questions. I hope you enjoy listening to our chat and I urge you to have some of your own with people who do not necessarily think the way you do.

https://www.youtube.com/watch?time_continue=17&v=6At-uH-yzqg&feature=emb_logo

I wanted to throw the phones into the ocean.

December 6, 2015

By Mark W. Anderson

Thanksgiving morning we took our traditional hike in Acadia. This year it was more of a walk – the Ocean Path from Sand Beach to Otter Cliffs to Otter Cove and back again. It was a beautiful morning, bright sun shining and an ocean full of Common Eider Ducks and Grebes. Thanksgivings were offered for many things, including the visionaries who saw the value of a national park for Maine a century ago (Maine Congressional delegation please take note).

At Otter Cliffs two young women were sitting on the rocks, facing away from each other. Both sat with heads bowed to the gods of technology, completely absorbed in small bright screens and oblivious to the beauty around them. I wanted to run up, grab the phones, throw them into the Atlantic Ocean, and scream, "Wake up! Look at all that you are missing with your heads buried in technological sand." I resisted the temptation.

Calmer reflection later made me remember what E.B. White wrote in the *New Yorker* magazine in 1948. "Like radio, television hangs on the questionable theory that

whatever happens anywhere should be sensed everywhere. If everyone is going to be able to see everything, in the long run all things may lose whatever rarity values they once possessed, and it may well turn out that people, being able to see and hear everything, will be especially interested in almost nothing." I think White would have wanted to join me in the phone throwing.

We have become enslaved by a world of gadgets, pawns at the hands of billionaires who have convinced us to send them bags of money so that we become oblivious to the beauty of the world around us and to our fellow travelers on this planet, human and otherwise. Worth is now measured by the numbers of social media connections we can make and our ability to produce an image or a phrase that goes "viral." Does the use of a disease metaphor here suggest anything to you?

Speaking of disease, we even now have a named disease for the anxiety of being out of mobile phone contact – nomophobia.

What concerns me the most about what I saw in Acadia is how technology is separating us from reality – the reality of nature and the reality of each other. One of the best expositions of this problem is Richard Louv's Last Child in the Woods. Louv shows convincingly how our modern technological society is creating what he calls a "nature deficit disorder" in children. The need we have that our so-called friends see our selfies compels us to endorse their selfies in hopes that they will reciprocate. This narcissism trumps the stunning beauty of Acadia National Park on a sunny morning in late November.

I am not so naive as to think smart phone technology and the internet are going away from modern society. The financial pressures alone are too great. Imagine a Christmas season without the ability of retailers to hawk the latest gadgets and convince Americans that they are going to be unhappy without them. But allow me to make a few modest suggestions for Mainers to show that we are not fully duped by Silicon Valley.

1. Make a point each day of knowing what phase the moon is in and try to find it sometime during the day, particularly during daylight hours. No app is necessary to do this.
2. Learn one constellation (Orion is a good one to start with) and follow it throughout the year. If there is too much light in your neighborhood to see the constellations at night, ask yourself why you and your neighbors let this happen.
3. Learn one new bird song next summer so that you can identify that bird both by sight and by sound. The white throated sparrow is a delight.
4. Buy two copies of a great book you enjoy and give one to a young person. Suggest that you read it at the same time and then sit down and talk about the book.
5. See how much your local school district relies on laptop computers at the expense of face-to-face communication among teachers and students.

6. Take a news holiday, maybe just one day at first. The world went on without you before you were born, so one day without following every news story won't end the world. Try it for a week and you will actually feel healthier.
7. Hold on now for this one: take a day without your smart phone, social media connections, email (if you are that archaic), internet, etc. It is OK if someone calls and you don't answer. Twitter will survive without you and some people may actually be relieved that you did not post another selfie. Maybe you can take the time you save to connect with people in authentic ways rather than virtually.
8. Take a friend to lunch and turn your phones off, really off, and just talk with another human being, face to face. The connection will be more meaningful than the ones with your internet "friends."
9. Finally, walk from Sand Beach to Otter Cliff. Maybe I'll see you there. We can watch a Guillemot fishing in the deep water off the rocks and wonder about the miracles of the Earth. If we are patient and watchful we'll see their bright red feet in the sparkling water. We won't need to take a picture with a phone or post anything to a Facebook page. We can simply store the image in that old computer between our ears.

Who Are the Environmentalists?

December 13, 2015

By Mark W. Anderson

Stereotypes are a problem. We all use them. We learn one thing about a person and then we fill in the details about who they are and what they think. Stereotypes give us a shortcut to understanding, but they are misleading. Nowhere is this truer than in terms of environmentalists.

I would be happy to be called an environmentalist. But I know that is misleading to many people. This is clear from the reaction to my blog posts. After a post on climate change one comment suggested that I had been duped by Al Gore. The stereotype: if you are concerned about climate change you must be under the thrall of Gore's propaganda. The fact is I haven't read anything Al Gore has to say about climate change and I never saw his movie, *An Inconvenient Truth*. I guess I meant to, but I never quite got around to it. I had been reading and teaching about climate change long before Al Gore took up the cause, so I did not need him for inspiration. Another post on alternative energy compelled someone to suggest that I drive off in my Tesla. Here too the stereotype was off target. I don't think electric vehicles of any type, and particularly not Teslas, are part of our energy or environmental solutions. They appear to me to be technologies of interest to entrepreneurs who are more interested in financial gain than in the quality of the environment.

One good way to understand how stereotypes about environmentalism are problematic is a book by Ozzie Zehner — *Green Illusions: The Dirty Secrets of Clean Energy and the Future of Environmentalism.* In the first part of the book, Zehner reviews the growth of so-called Green Energy or Clean Energy technologies. Environmentalists are supposed to love these technologies; that is part of the stereotype. What he makes clear is that all forms of energy have adverse effects and that calling any of these new sources clean is misleading. The message is one that makes sense to me; I have questioned the way we in Maine use the term renewable energy to pursue policies that are environmentally damaging. Biofuels, wind power, photovoltaics, and carbon sequestration are all put under the microscope in *Green Illusions* and most come up wanting.

The popular appeal of green energy, which we see swirling around the international climate conference in Paris, is that all of us can continue business as usual. Some

simple technological solution will let us continue to lead our lives without any change. This feeling is tinged with the often unstated conspiracy theory that corporate or government bigwigs are hiding solutions from us to preserve their short-term financial interests. If we can just unleash the new technologies there is a straight and easy path to new energy that is abundant, cheap, and clean.

So don't assume that calling me an environmentalist means I have to embrace wind turbines and electric cars. I think the best way to address climate change is through a revenue neutral carbon tax. This places me in the uncomfortable position for someone who is supposed to be an environmentalist of agreeing with ExxonMobil on this preferred policy approach to climate change. Being on any page with ExxonMobil is not part of the environmentalist stereotype.

Zehner makes clear that environmentalism, the desire for humans to live such that we preserve the integrity of natural systems on the planet and provide fulfilling lives for over 7 billion people, is not about technological panaceas that let us maintain business as usual. A healthy future will require much more from us than shifting from fossil fuels to the chimera of clean energy. It will require that we change in fundamental ways how we live on the planet.

New technology may be a part of solving environmental problems, but it will not be the most important part. Zehner says, "The 'energy crisis' is more cultural than technological in nature and the failure to recognize this has led to policies that have brought us no closer to an alternative-energy future today than we were in the 1960s when the notion was first envisaged." Cultural change is hard, so we avoid it if we can.

In the 1980s, sociologists tried to develop a means of measuring how pro-environmental people were. One of the most widely used of these metrics was something called the New Ecological Paradigm scale (NEP). The idea was that we could measure someone's pro-environmentalism based on the extent to which they agreed with 15 statements about the environment. Some of my colleagues and I tried to use this measure to see whether different kinds of university classes changed the values of undergraduate students. It turned out that this NEP scale may have been just one other way of stereotyping environmentalists. It appears to not be particularly reliable at measuring values from group to group.

For me, the lesson of all of this is to beware of individuals, groups, or companies who tell me that what they are doing is green or sustainable. I have seen too much greenwashing, using claims of environmental responsibility just to continue business as usual. I believe we are not going to consume our way to sustainability. In that, I am more of an environmentalist like Zehner. Business as usual will not be an option in the future and the sooner we get around to understanding that the better that future will be for all of us.

Why the Paris Climate Agreement Will Fail

December 20, 2015

By Mark W. Anderson

Those are words I hate to write. As is clear in earlier blogs, I think climate change is one of the biggest challenges facing humanity in the 21st Century. The courage of nations trying to find common ground on this issue is heartening, but I fear the effort will be insufficient.

For me, climate change is a symptom of deeper underlying problems in society. By treating global climate change as the problem, we will inevitably fail. In fact, we may well do things that make other symptoms of the real problem even worse.

One of the American delegates to the Paris conference celebrated its successes and declared (and I paraphrase) that now was the time to do the difficult work of transforming the American economy from high carbon energy to low carbon energy. He and other U.S. participants laid out the political motivation for the U.S. to embrace the Paris agreement. If we do not, they argued, we will fail to capitalize on the commercial opportunities presented by these new, low carbon energy technologies. The U.S. delegation continues to talk about climate change as an opportunity for American innovation. This approach has the same unseemly feel as Governor LePage's excitement over the commercial shipping opportunities for Maine ports provided by melting of the Artic sea ice.

The truth is that climate change is just one symptom of a much larger issue that I think we should call anthropogenic global change. The idea of global change is that the industrialization begun in the 18th Century has reached a point where it is doing more harm than good. It will not be enough for us to continue with business as usual, just a little smarter. A few more and better wind mills, solar panels, and electric cars will make us feel good, but will fall far short of addressing the underlying problem. A growing human population coupled with growing per capita consumption, no matter how "smart" the technology is that provides those consumption opportunities, are ingredients in a recipe for disaster.

Ecologists sometimes say the first law of ecology can be simply stated: everything is connected to everything else. A variant on this is: you can never do just one thing. Nowhere is this clearer than in the realm of global change. With all the talk of producing a low carbon energy system, we ignore completely other parts of the global

system that humans may have changed even more than the flows of carbon from fossil fuels to the atmosphere. Here I want to mention just two – the global nitrogen cycle and peak phosphorous.

Canadian geographer Vaclav Smil suggests that human change in the nitrogen cycle may be even greater than the change we have caused in the carbon cycle. The need to produce food for over 7 billion people, an increasing number eating more animal products in their diets, has required production of vast amounts of nitrogen fertilizer. We make the fertilizer using a fossil-fuel intensive process called Haber-Bosch. The effect is to move large quantities of nitrogen from a non-reactive form to a reactive form that causes a host of environmental problems, like the dead zone in the Gulf of Mexico caused by the nitrogen run off in the Mississippi River. Cornell University scientists argue that weaning ourselves off this nitrogen source would require significantly lower human populations.

Not only do we mobilize millions of pounds of nitrogen every year to grow food, we mine similar amounts of phosphorous to add to fertilizers for crop production. Phosphorous can be a limiting nutrient in the production of a number of important food crops. While the question of peak oil is contentious, there is wider acceptance of the phenomenon of peak phosphorous. The idea is that easily available sources of phosphorous to mine are getting increasingly rare and that phosphorous which has been mobilized since industrialization is not going to be captured back.

Ironically, both the nitrogen and phosphorous issues are related back to proposed innovative solutions to address climate change. Biofuels are supposed to be a central part of the U.S. innovation economy for replacing fossil fuels. But of course growing crops to produce ethanol or biodiesel in any meaningful quantities requires big inputs of nitrogen and phosphorous. Trying to solve one problem with technology just causes other problems.

So the Paris climate summit may be a triumph of diplomatic compromise to address a difficult global environmental issue among countries. It just addresses the wrong problem. As difficult as the climate change issue is with divergent national interests, the real problem is much more taxing.

The market-based, growth oriented global economic system built after World War II and consolidated with the fall of the Soviet Union cannot continue. It has produced increasing inequality among people, both within countries like in the U.S. and between the richest and poorest countries in the world. It is the root of the growing problems of global change, including climate change. Despite this, we continue to be told that growth will solve our environmental problems and that the rising tide will lift all boats. The promise is that business as usual, just a little smarter, will fix these

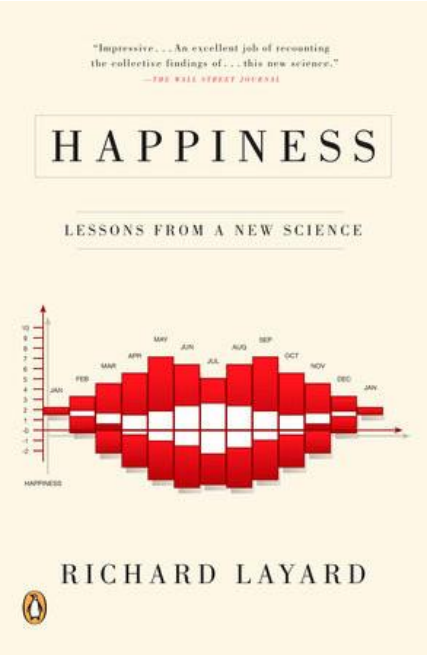
things. The real solutions will lie in a growing area of economic inquiry called sustainable degrowth, which will be the subject of a future blog.

The Paris climate talks were just one more chapter in the false promises of technological innovation and economic growth. Why do we continue to think that the fundamental paradigm that created the problems will provide the solutions?

Will You Be Happy in the New Year?

January 2, 2016

By Mark W. Anderson



The traditional greeting for January 1 is, "Happy New Year!" Then we joke about resolutions, which most of us know will not be realized, and move on to the next thing in our lives.

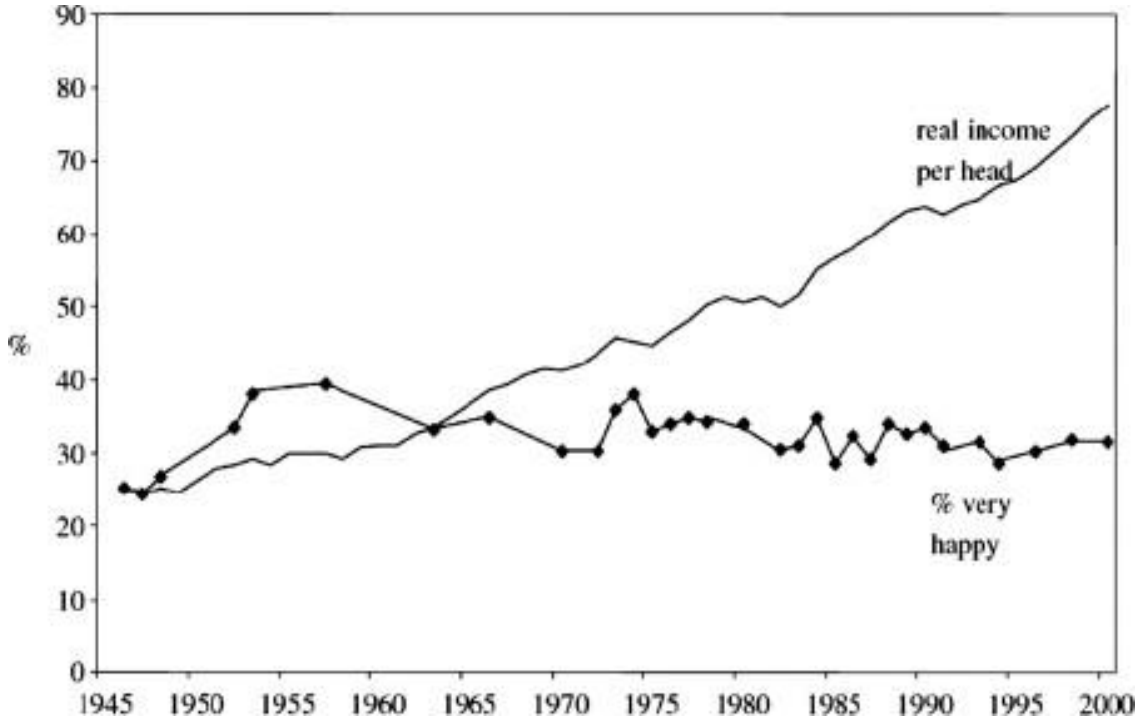
It is time to pause and think about the idea of happiness we invoke in the New Year's greeting. This might be an odd request from an economist, because 20th Century economists struggled with the idea of happiness. The basic problem economists had with happiness was its measurability; so they focused on two related but very different concepts – utility and welfare.

The happiness measurability problem has two parts. First, it is hard if not impossible to compare happiness between two people. On the face of it, it seems absurd to say something like this: I get more happiness from watching a sunset (or eating an apple, going to a Star Wars movie) than you do. In economist language, it is not possible to make interpersonal utility comparisons. Second, there are no logical units with which we can measure happiness; there is no logical way to say that a vanilla ice cream cone gives you twice the happy points of a chocolate ice cream cone.

Given these measurability problems, economists fell back on the idea of the utility an individual gained from consumption. The assumption was that each individual could rank personal utility gained from consuming alternative goods. So, it is possible for a person to say I prefer vanilla ice cream to chocolate ice cream and I prefer chocolate ice cream to onions. No happy points are needed to say that. Furthermore, these rankings could be measured using money income of the individual consumer. The logic was, I should be willing to spend more income on vanilla ice cream than on chocolate because of the ranking of my preferences.

This was a slippery slope for economic thinking because it led to the often unstated idea that utility was nearly the same as happiness, and that utility could be measured using units of money. So an economy that provided more money income on average for its people would yield more utility.

By the end of the 20th Century, some economists were beginning to question the logical problems that this had led economics to and started talking about happiness again. Prominent among these was Richard Layard of the London School of Economics. Layard's 2005 book, Happiness: Lessons from a New Science is an important resource for new thinking about happiness. The key insight that shows the problem for economics is on page 30 where Layard shows over 50 years of data comparing real average money income for Americans and how happy they state they are. Economic theory said that higher incomes should yield higher consumption levels, which would make people happier. Starting in the 1960s the happiness and income lines diverged; more money income did not make people happier.



This finding, if true, makes economics much harder. No longer is it enough to devise policies that encourage economic growth, because of a belief that growth in income makes people happier. If such growth leads to job insecurity, mindless work that pays more money, income inequality, the need to move from community to community to find higher pay, and a degraded natural environment, growth and higher incomes might actually make people less happy.

In his book on happiness, Layard explores not only the economics of the issue but the psychology of happiness as well. Layard's work and that of other like-minded academics has spawned a whole new field of social science research, happiness studies. The field has its own academic journal, The Journal of Happiness Studies. And Layard is part of a new on-line effort to help people use the research to be happier. This is called Action of Happiness.

The Beatles told us that "money can't buy me love," and it turns out that it can't buy happiness beyond a certain point either. Clearly, everyone needs enough money to provide clean shelter, healthy food, health care, decent clothes, meaningful pastimes, and the like. Beyond some point (about $20,000 per person, per year), money may well add very little in the way of happiness. Layard (p. 31) calls this the happiness paradox: "When people become richer compared with other people, they become happier. But when whole societies become richer, they have not become happier…"

So as you greet your family and friends with the Happy New Year greeting, stop for a moment and think about your happiness. Are you using your time to make extra money income rather than spending that precious time doing what makes you happy? What is it that makes you happy? Do you make those around you happy?

Layard's book is a good place to start your own personal inquiry into happiness.

Why is Governor LePage So Unhappy?

January 10, 2016

By Mark W. Anderson

Create all the happiness you are able to create: remove all the misery you are able to remove. Every day will allow you to add something to the pleasure of others, or to diminish something of their pains. And for every grain of enjoyment you sow in the bosom of another, you shall find harvest in your own bosom; while every sorrow which you pluck from the thoughts and feelings of a fellow creature shall be replaced by beautiful peace and joy in the sanctuary of your soul. Jeremy Bentham quoted by Richard Layard.

After my blog post last week on the growing social science of happiness, I began to think about Maine Governor Paul LePage. Every time I see him on television he seems so unhappy, sometimes to the point of anger. The governor's latest demagoguery was just one more, albeit extreme, example. This unhappiness puzzles me. It seems that someone in his circumstances should be happier. Something must be keeping him from happiness.

He has twice been elected to the highest office in Maine public life. It seems like that should give him some satisfaction in his life. Perhaps he is still bothered that in both elections he failed to garner the support of the majority of voters.

He should be well off financially. Being the big cheese at Mardens must have paid well and he certainly should have been smart in how he managed his personal assets, he earned himself an MBA. With the new income tax changes in Maine he and other higher income individuals are paying less in taxes. Maybe the tax cuts are not enough to keep all his friends from moving out of Maine.

As a state employee he has good health insurance so he need not be anxious about the financial burdens from injury or illness. Could it be that he worries about the precarious circumstances of tens of thousands of Mainers without health care coverage because Maine did not expand federally-paid-for Medicaid coverage under the Affordable Care Act?

News reports suggest that he has a nice home in the Boothbay region and he appears to have a delightful family. Friends of mine who have met his wife report that she is a wonderful person. Is that not reason enough to be happy?

And he lives in Maine. It is not that we don't have problems to work on, but it is a pretty good place to live. This is a place where one is more likely to be happy than many others on the planet, like the home state of the Governor's good friend Chris Christie.

So why does he look and sound so unhappy when I seem him on television or hear him on the radio? The unhappiness looks like anger sometimes, and that anger is widely distributed, aimed at Democrats, out-of-staters, Syrian refugees, Ebola nurses, and even some of his fellow Republicans.

I hope I am wrong and the façade of unhappiness and anger is not real. My wish for Governor LePage and for all Mainers – Republican and Democrat, asylum seekers and native born, wealthy and the homeless, addiction counselors and MDEA agents – is that they may enjoy a happier new year in 2016.

I Want A Generator

January 17, 2016

By Mark W. Anderson

We lost power for 19 hours in last weekend's storm. Early Monday morning when I went outside I could hear the hum of generators in every direction on my rural Maine road. I was a little envious. The inconvenience of lugging water stored to flush the toilet, stoking the wood stove for heat, and storing food on the just-cold-enough porch was such that I wanted a stand-by generator. Once I got over that envy I began to think about the wonder of electricity in modern life and the challenges it presents us. I offer four thoughts about electricity in our lives.

1. Use of electricity is one important indicator of human development and industrialization. As Vaclav Smil says in his *magnum opus* Energy in Nature and Society, "Only electricity offers instant, effortless, consumer access; the ability to fill every consuming niche and be converted into motion, heat, light, and chemical potential; serving as the sole energizer of electronically transmitted information with unmatchable control, precision, and speed; silent and clean conversion; extremely reliable individualized delivery; and easily accommodating growing or changing uses." And power outages always remind me of how much we take these many benefits for granted. In just a couple of generations our lives have become so much easier in the Western world because of this abundant and relatively cheap means of moving energy into our homes.
2. This recognition then reminds me that we are fortunate in our society. Many households in the world have electricity available for only a few hours a day and the World Bank estimates that 1.3 billion people, nearly 20% of the globe's population, have no access to electricity. Those families have much more cause for envy than I do when I hear my neighbors' generators running. They have no flush toilets, no refrigerated food, no fans in the summer, no furnace in the winter, no indoor lighting at night. The inconvenience of 19 hours without power pales next to this. I should be more grateful.
3. I do not have the data to prove this, but there seem to be two trends here of note. It seems like over the past several years we have had more power outages in Eastern Maine. In turn, many more people have portable generators or permanent stand-by generators to deal with the outages. There are three big problems with this. Gasoline or diesel generators are an

inefficient way to generate electricity. They create more air quality problems per unit of power produced than centralized power generation. And they may also be inefficient in a larger sense. If all the time, money, and technology that go into individual household generators were spent to make the power systems in our communities more robust, maybe we would have fewer outages. Generators are just one more indicator of the growing individualism of our culture at the expense of the common good.

4. Finally, it is important to remember that electricity is means of moving energy around, it is not a fundamental source of energy. So every kilowatt hour of power coming into our homes had to be generated somewhere. Some primary energy source – oil, coal, natural gas, moving water, wind, sunlight – had to be harnessed and converted into electricity. Every one of these sources and their utilization impacts the environment, each in its own peculiar way. There is no such thing as "clean power," only power with different impacts. This is the fallacy of much of modern environmentalism, seen, for example, in the silliness of calling electric cars zero emission vehicles. There may be zero emissions from the car itself, but the process of generating and transmitting the electricity to run those cars surely created emissions into the air and other environmental costs. So every time I flip the switch at home, I'll try to remember what goes into getting that wonderful electricity to us. It does not just cost us money, it costs the environment we live in.

It was a time of celebration Monday afternoon about 1:00 when the power came back on. Toilets were flushed, dishes washed, water jugs filled, candles put away. The celebration should be tempered by gratitude, appreciation, and understanding of this miracle that powers our lives. So, on further thought, I'll do without that generator.

A Remembrance Day for Teachers

January 24, 2016

By Mark W. Anderson

In most of the Commonwealth nations November 11 is Remembrance Day, a holiday celebrated since the end of World War I. Much like our Memorial Day, this day is set aside to remember those men and women who died in military service to their countries. The expression we often use in our Memorial Day is that we remember those who "gave their lives for their country."

I am declaring for myself, today as another remembrance day, a day when I remember wonderful teachers who are no longer with us. In a way very different from military service members, these teachers gave their lives for their country. They could have made more money and found more status in other occupations, but they chose to teach. Certainly they did this because they loved the work and because they were committed to helping young people.

In the words of the Nora Jones song American Anthem, these people too can say, "America, I gave my best to you." And so I remember…

Miss Fickett, my 7th grade English teacher. Like all superb teachers, she had high expectations for all of her students. While she was an imposing figure, she clearly cared deeply about our learning. She taught us to diagram English sentences, which was the first time I had an inkling of the logic in the English language. She would cringe today to see the death of the adverb, particularly in advertising, where we are urged to "eat healthy" or "shop local." These advertisements would have earned a (sic) from Miss Fickett.

Mr. Vickery, was my high school senior year English teacher. A short, disheveled, and colorful character, at the time I did not fully understand what a treasure he was. He pushed a bunch of surly 17 year olds to see the breadth of English writing and to appreciate the hard work it takes to write well. His legacy lives on in special collections at UMaine's Fogler Library where the Vickery collection of Maine books reflects his life - long passion for his home state.

Ironically for someone who studies social sciences, my third remembrance is also an English teacher. Larry Hall taught me expository writing my first semester of college. I did not realize at the time that this was Lawrence Sargent Hall, whose much

anthologized short story *The Ledge* captures the essence of coastal Maine the way few writers have been able to. All I knew was that a semester of writing for Larry Hall was a gift. He taught writing by asking us to write, and edit, and re-write, and edit… You get the picture. Every writing class I had the privilege to teach decades later was shaped by Larry Hall.

My second semester of college I had the privilege, by pure accident, to take a tutorial from the college President, Roger Howell. There were two of us in this class. We read a book a week on utopian themes and spent one evening each week in the President's house discussing these works. I should have been intimidated by what I was doing, but at least I realized the power of this man's intellect. In a second semester we moved from utopia to futures literature which in many ways set the foundation for my future career. Good teachers often live on in your work.

My junior year of college was spent under the tutelage of Frank C. Spooner, Professor of Economic History at Durham University. Spoons, as he was affectionately known, shepherded a group of American college students around the United Kingdom and the continent. He seemed to know everything and everyone, dressed as you would expect an English don, and was gracious always. In the words of the lawyer/singer/songwriter Paul Nunes, "Spoons was my main man." While not our classroom instructor, we learned more from him than we could have learned in any class.

In my last semester of college I met a force of nature, Matilda White Riley. She taught the only sociology course I ever took, one on the sociology of death and dying. I learned more about how do to social science research in those three months than any other time in my life. The most important lesson I learned from Mrs. Riley was that teaching was about passion. If you did not love the material you were teaching or the act of teaching it, you did not belong in the classroom. Every day her large smile and boundless energy to dive into the material impelled us forward. Like Miss Fickett many years before, she gave her all and expected no less from us. This is the central lesson about teaching for me.

On my 21st birthday Professor Spooner gave me a bottle of *vin du pays* from Carcassone. To all these teachers of mine I lift a glass of this gift and thank you for giving your best.

Who Are the Mainers?

January 31, 2016

By Mark W. Anderson

Maine Governor Paul LePage, in one of his fits of pique, declared that his only interest as Governor was in protecting "Mainers." Mainers are to be protected from Ebola-infected nurses, Syrian refugees, asylum seekers from Africa, and out-of-state gang members. This got me thinking, just what makes one a Mainer?

This topic interested me long before LePage became governor. I explored the question of what makes a Maine writer in an essay I wrote about E.B. White and R.P.T. Coffin called Two Pigs from Maine. What makes an authentic Maine writer is a question very similar to what makes us Mainers deserving of Governor LePage's protection.

My Maine roots go back to 1639 when Robert Jordan emigrated from England to Scarborough. But it is a mistake to suggest that I am more a Mainer than someone who moved to Lewiston from Somalia in the last decade. It is equally a mistake to think that I am less a Mainer than someone whose ancestors immigrated here by way of the land bridge across the Bering Straight ten to twelve centuries ago.

Despite all of the Maine humor about people from away, the reality is that we are all from away. We all arrived here either by our own personal choice or the choice of an ancestor. People come to Maine, just like those who move to other locales, because they believe it will lead to a better life. By the same token, people leave Maine because their vision of a better life is fulfilled by some other place.

Currently, about two thirds of people living in Maine were people who were born here and stayed. There is not much doubt we can call these Mainers. Of the rest, the biggest group came here from Massachusetts, followed by New Hampshire, New York, and then the rest of the Northeast. For those who left Maine, most went to Florida (those of a certain age?), followed by Massachusetts and California. Seeing from these Census data where we come from and where we move to is one snapshot of the idea of Mainers.

The same data show that hundred years ago, 16% of people living in Maine immigrated here from outside of the United States. Many of their descendants are now entrenched Maine families, with no hint of being from away. Today about 4 % of Mainers were born in other countries.

All of this tells me that being a Mainer is not about the accident of birth. It is a commitment to place. The Governor's fixation on "out-of-state drug dealers" is misplaced. Dealing drugs is not a function of where one was born. There are plenty of "native Mainers" who deal and use drugs.

What should matter is whether we choose to make Maine our homes and commit to making this a place where people can be happy. We choose to be here, and that makes us Mainers. Those of us who were born here and then stayed did so for good reasons. So I don't fret as others do about our "young people who move away;" and I don't think we should try to make Maine look like Boston or New York in an attempt to keep young people here. If this is a good place for them to live, they will stay or return.

For me there are some unscientific answers to the question of what makes one a Mainer, that is someone who wants to stay. For example, Mainers have several ways to heat their homes – wood, pellets, propane, electricity – and we are always looking to add another. Mainers are happy to share the beauties of the state with visitors (particularly if they drop a little cash when they are here) and we are equally happy when they go home. Mainers are skeptical of both natives and those from away with big plans to "develop" our state. We thought a bid for the winter Olympics in the 1970s was a poor idea and we doubt an East/West highway today will help very many people. We do get fooled from time to time (think urban renewal in Bangor, sugar beets in Aroostook, or the New Market Capital Investment Program), but we tend to learn from these mistakes. Mainers are willing to work more than one job for the privilege of staying here and if we get lured away by offers of gold we try to find a way to get back.

So Irish, French, Penobscot, Somali, Syrian – all can be Mainers. Mainers come or stay by choice, because, as places go, it's a pretty good place to live.

Unless We Are More Careful, Technology Will Doom Us

February 7, 2016Anthropocene, Energy Policy, Opinion, Technology

By Mark W. Anderson

cosmologist Stephen Hawking recently told the BBC that most threats to humans now come from science and technology. He surmised that the 21st Century will be the most dangerous for humans because of the very progress we have made in science and technology. There's irony for you.

When I saw this headline, I was reminded of the great debate within the environmental community in the 1960s. On one side, ecologist Paul Ehrlich argued that human population growth was the primary cause of environmental problems. As the title of the book he co-authored proclaimed, The Population Bomb was threatening humanity. The contrary view, that of Ehrlich's fellow ecologist Barry Commoner, was that technology and its role in modern society was the fundamental problem. Commoner's book The Closing Circle challenged what came to be known as the neo-Malthusianism of Ehrlich.

Without explicitly referencing Commoner, Stephen Hawking's perspective continues this basic critique of the modern, high energy, technologically sophisticated industrial economy. The most recent exposition of this argument comes from those who suggest that we have entered a new geological time, The Anthropocene. This idea is that industrialized human culture with its heavy reliance on high energy technological systems has now become the great force of change in nature. In the words of historian J.R.R. McNeill, we live in a time of Something New Under the Sun.

Science and technology, particularly beginning with the Industrial Revolution of the late 18th Century, have dramatically improved human life. Particularly for the wealthy peoples of the world, including us in the United States, it provides a physical quality of life unprecedented in human history. Most Americans eat better, live longer, work less, and enjoy more recreation than the vast majority of humans who ever lived. We have much for which to be grateful.

Yet this experience lulls us into the sense that even more science and technology will contribute to human wellbeing. We see developing new science and technology as the fundamental approach for solving most of society's problems. The very act of innovation is an unquestioned good, new is assumed to be better than old. The United States response to the Paris climate talks is a good example. We trust that new

technology will solve the climate change problem and no other change in our industrial culture is needed.

This attitude toward science and technology is a big change compared to the time of the Ehrlich/Commoner debate. In some important ways, Commoner's perspective was more widely accepted during that time. In the 1970s, science and technology were subject to more scrutiny than we give it today. The dominant perspective was that technology could add to wellbeing or could detract from it. This ethic was so strong that the U.S. Congress established in the early 1970s an Office of Technology Assessment (OTA) charged with providing advice to Congress on the social, economic, and other impacts of new technology. Technology Assessment was a set of tools developed as part of the larger futures research movement.

There are plenty of recent examples of technology adopted to solve problems that in turn create a new set of problems that are potentially greater than the original problem. I have argued in this blog that so-called renewable energy technologies like wind power and biofuels are in the category. Another example is the adoption of genetically engineering food crops that are resistant to herbicides. The adoption of this technology has, among other impacts, led to the dramatic decline in Monarch butterflies. This is the kind of unintended consequence of new technologies that can be anticipated by the careful application of systematic technology assessment.

Unfortunately, the Congress no longer benefits from this kind of evaluation of new technology. As part of Newt Gingrich's Contract with America, funding for OTA was cut in 1996. Technology assessment is now largely absent in public and private efforts to stimulate new technologies.

The goal of technology assessment is to move society to making conscious choices about which technologies to adopt and which to forego. It means leaving aside the attitude that new technologies are always good. It means adopting some more skepticism about technological change. Some call this approach the use of a precautionary principle. Instead of embracing new technology until it can be proven to be bad for us, we need to determine that technology is not bad for us before adopting the new. Another way of stating this view of technology is, just because we can, does not mean that we should.

By taking this approach toward science and technology, maybe we can prove Stephen Hawking wrong.

Sex, Drugs, Violence, Flag Waving, and Money

February 14, 2016

By Mark W. Anderson

When I was in the fifth grade, we wrote stories about what we wanted to be when we grew up. In my story, I was a fullback for the New York Football Giants. If you grew up in Maine when I did, you were likely to root for the Giants or the Green Bay Packers. That upstart American Football League did not even exist. I remember rooting for Y.A. Tittle, Sam Huff, Rosie Grier, Rosie Brown, and other Giants notables. These were teams that found ways to lose the big games to the Colts and Packers as deftly as the Red Sox lost to the Yankees. Even though it was not until the era of Phil Simms, Harry Carson, and Lawrence Taylor did I know what it was for my tribe to win a championship, I was hooked.

It is common to say that sports are a metaphor for life. This is true today about football and in ways that are less than desirable. Professional football has become too much like the worst parts of American culture: sexual exploitation, drugs, violence, flag waving, and money. I find it increasingly hard to enjoy being a fan.

The National Football League recently suffered from high-profile domestic violence cases involving star players. The league's response was to try to burnish its image with slick public relations tools – public service announcements decrying domestic violence and breast cancer awareness game days where players and coaches wear pink gear. These superficial responses try to paper over the real culture of the NFL. This culture is most clearly evident in team "cheerleaders," scantily clad women employed to keep men's attention during lulls in the game. (My Giants are one of the few NFL teams to have never employed cheerleaders.) Given lack of meaningful opportunities for women to work in the NFL coupled with the presence of cheerleaders as sex objects, it is hard to argue with those who see football's culture as inherently misogynist.

The U.S. continues to struggle with substance abuse, the most high-profile manifestation being the increasing opiate addiction rates. Yet we tolerate the drug culture of professional football where pain killing pills and injections are used routinely to keep players on the field. The league also reflects our larger societal ambiguity about drugs by sanctioning wide spread use of pharmaceutical pain killers and then punishing players for self-medicating off the field with marijuana. Celebrating a work

environment where doing one's job is reliant on drug use is no model for addressing the larger drug crisis in our culture.

Of course, drug use in football is a result of its inherent violence. Scholars like Bob Trichka long ago pointed out the ethical dilemma where behaviors that would be prosecuted in any other work environment are celebrated in football. For a fan, this is problematic. We are excited by the big hit and violence in sport is memorable. I clearly recall watching television the day Lawrence Taylor broke Joe Thiesman's leg in a perfectly legal football play. Does the violence we see in sport mirror our tolerance of violence in our larger culture? Once again the NFL's response is denial, seen in the league's failure to address concussion issues in any meaningful way. To add insult to injury (literally), the league generally abandons ex-players to deal on their own with their work-related injuries.

Football and other sports have become increasingly imbued with flag waving and crass militarism. George Carlin's famous routine about the differences between football and baseball was a humorous take on the militarism of football. Since September 11 there has been a dramatic increase in the NFL's use of military symbols – over-sized American flags, paratroopers dropping into stadia to deliver game balls, and wounded warriors given side-line access during games. This increasingly feels exploitive. Football tries to convince us that being fans is another way of showing our patriotism; but the symbols are hollowed by their support of the money machine that is the NFL.

And money is the key. Professional football now mirrors the broader American economic model. A few extremely wealthy individuals monopolize a popular franchise and then exploit both workers and the public purse to add to their vast personal fortunes. Income inequality, declining bargaining power of workers, short-term employment contracts, and public extortion are at the core of the football business model. Owners use their monopoly power to threaten moving teams from one city to another to hold up local governments for huge subsidies that create little public benefit. In other realms economists call this rent seeking behavior. Smith College economist Andrew Zimbalist documented the way pro sports owners exploit this system to increase their wealth at the expense of players and the public coffers. No sports league does that more effectively than the NFL.

So football has lost more than a little of its luster for me. It is harder to watch the games with the unbridled joy of a fifth grader. You may still find me celebrating my Giants, win or lose, in my team jacket from the 1986 Super Bowl era. It is hard to lose that winning feeling. This is the contradiction of being a 21st Century sports fan. It mirrors the contradictions in 21st Century American society.

The Wisdom of Higher Gas Taxes

February 16, 2016

By Mark W. Anderson

I had argued last November that Now Is the Time to Raise the Gas Tax. So I was pleased to hear that the Legislature's Transportation Committee is thinking about this very policy.

Motor fuels taxes are the best way to fund highway maintenance and repairs:

They are fair. Users who put more strain on bridges and roadways, those with heavier vehicles or drive more miles, pay a larger share of the costs.

They are efficient. The infrastructure for tax collection is in place and gas taxes avoid the borrowing costs of transportation bonds.

They represent a pay-as-you go ethic. Unlike transportation bonds, the present generation takes responsibility for the costs of transportation infrastructure. Funding repair and maintenance with bonds is pawning these costs off on future generations.

They can be structured to assess more of our infrastructure costs on people from away. Imagine a gas tax that is ten cents a gallon higher from May through October so that we collect more from tourists visiting the state. Just like lodging establishments do, we would charge more when demand is greatest.

They also send a market signal to drivers that it is wise to continue to drive less and to invest in more fuel efficient vehicles. Higher gas taxes help keep demand for gas from growing again. Fewer miles driven means better air quality and reduced climate change.

Now is definitely the time to raise the gas tax.

Our Problem With Stuff

February 24, 2016

By Mark W. Anderson

Stuff is at the center of our lives. The idea of stuff gives a way to consider whether our industrial culture is sustainable. Using stuff to think about our lifestyles is not new.

George Carlin's comedy routine on stuff is one of my favorites and, as usual for Carlin, it is filled with insight. Somewhat more serious is Annie Leonard's Story of Stuff, which makes a forceful case for the problem of stuff in our lives. The Boston Globe, amidst advertisements for lots of expensive stuff , outlined the problem of stuff. Stuff is the subject for serious academic inquiry. Boston College sociologist Juliet Schor explores the issue of stuff in our industrial society; her work among that of others spawned the Center for a New American Dream. Recently, an IKEA executive, suggested that the Western world has reached peak stuff. Even a global retailer of stuff understands that most households don't need any more candle holders or bookshelves.

We need to explore the role of stuff in our personal lives and in our economic system. Stuff is central to the theory of economic wellbeing that dominated the 20th Century and changing how we think about stuff will be the foundation for building a more sustainable global economy in the 21st Century.

In the dominant economic paradigm of the 20th Century, stuff played a key role in the idea of personal welfare. Consuming more stuff and services that go along with it, the theory says, will contribute to an individual's economic welfare. One of the assumptions spelled out in the first chapter of virtually every introductory text book is, more is preferred to less. Economic systems that generated more personal income created the capacity for greater individual consumption and therefore more wellbeing. More stuff equals more happiness.

This led to an emphasis on economic growth as the primary goal of economic policy. Growth became a central tenet of U.S. economic policy in the post-World War II era, embodied in the Full Employment and Balanced Growth Act of 1978. In all of human history no society has ever matched the ability of the U.S. to grow and deliver more stuff to more people. Even though there has been much hoopla around the idea of a transition in the U.S. from a manufacturing economy to a service economy, the reality is that most of this service economy is involved in the design, engineering, marketing, finance, distribution, and sales of stuff made outside of the U.S. We are still all about stuff in the foundation of our economy, and the more stuff the merrier.

There are two problems with this emphasis on stuff in our lives. First, there is growing evidence in the emerging field of behavioral economics that more stuff does not generate more individual wellbeing. The growing area of happiness studies questions the premise that more is always preferred to less. This research shows that beyond a minimal level of consumption of stuff, increases in consumption do not yield increases in happiness; but such increases in consumption do create problems.

The most significant problems are environmental. The production and distribution of stuff requires matter and energy from nature. And once we are done with that matter and energy, it has to go back to nature (the law of conservation of matter and energy). More stuff for us results in more matter and energy flowing from nature, through human society, and back to nature again. The effect is to create the multitude of environmental issues facing humanity from climate change to biodiversity loss to ocean acidification and more.

Talk about irony. More stuff fails to make us any happier and that very stuff is central to the unprecedented changes we are creating in our planet. These changes are so great that some geologists now believe we have entered a new epoch, the Anthropocence. The idea is that humans are so changing natural systems on Earth that we are now the greatest force for change on the planet. And we can trace those changes right back to all our stuff.

Even more challenging for us is the fact that we do not have a theory for devising an economy based on something other than producing and consuming ever more stuff. A few economists have explored the idea of a steady-state economy or even sustainable de-growth. The reality is, our whole social and economic system requires more production and therefore more consumption of stuff. Shopping is even a patriotic thing to do, particularly in the holiday season, as we were reminded in December 2006 by President Bush.

When it comes to stuff, we have issues in the United States. We are addicted to stuff. And like most addictions, stuff demands ever increasing quantities to keep us from feeling bad. The first step to dealing with this addiction is to admit it.

My name is Mark, and I have too much stuff…

Five Books I Would Like Our New President to Read

March 1, 2016

By Mark W. Anderson

I don't know if the leading candidates for the American Presidency are big on reading history, but I would like to recommend to them five books to read before taking the office. These provide wisdom and insight that would help our new President do their job well.

My first suggestion is William Cronon's **Changes in the Land: Indians, Colonists, and the Ecology of New England.** This book is considered one of the first and best books of environmental history. I mentioned it in my Thanksgiving greeting last November.

There are several themes in *Changes in the Land* which are important for our incoming President. Cronon makes clear the problems that come from the clash of two different cultures. European colonists and Native Americans had fundamentally different views on how nature provides for human wellbeing. Both used nature to support human lives, but the understanding of how that could or should be done was different. Importantly, the European commodification of nature's bounty produced adverse effects for both them and the Indians. As we deal with the rest of the world's peoples in the 21st Century, recognizing differences, particularly differences in power, would serve our next President well. Equally important, we will need to understand that everything important in our lives cannot be reduced to mere commodity.

This theme is seen even more clearly in my second choice for Presidential reads, J.R.R. McNeill's **Something New Under the Sun: An Environmental History of the Twentieth-Century World**. Our new President needs to understand the uniqueness of the time in which we live. Since most of us have lived our lives in the post-World War II era, it is difficult to appreciate intuitively that the last seventy years are unprecedented in human history. This is true in terms of both the growth of humans on this planet and the growth in *per capita* consumption. Never before have so many people consumed so much. It is a mistake to think this growth can continue unabated.

To come to understand the significance of McNeill's story of the 20th Century, our new President should also read the book McNeill wrote with his father William McNeill, **The Human Web: A Bird's-Eye View of World History**. The United States is not the first great nation in human history, several have come and gone before us. Understanding the comings and goings of the great civilizations is imperative for wise decision making

about our collective future. The McNeill's book covers similar ground as Jared Diamond's *Guns, Germs, and Steel* or Ian Morris's *Why the West Rules – for Now*, but I think does so more effectively. The McNeills explain the fundamental process of gaining wealth and power among nations in the world. They say, "Local differences remained profound, but an encompassing process of trial and error rewarded all those changes in social organization, technique, and communication that enhanced deliberate control both over natural resources and over concerted human effort. We are still caught in this historic process and unlikely to escape it, simply because most people, most of the time, prefer collective and personal wealth and power to poverty and weakness, even at the cost of subordination to rules and commands issued by distant strangers." Does this not describe our behaviors today?

My fourth title for the new President to consider is David Kennedy's **Freedom from Fear: the American People in Depression and War, 1929 – 1952**. While we are now three or four generations away from the end of World War II, the period of time covered by Kennedy still frames our nation's role in the world today. No events of the past 100 years are as important to the world our new President will navigate as are the Great Depression and the Great World War. I want whoever is president to understand how we survived those times as a nation and the lessons those times have for surviving in the future.

Speaking of lessons, my last recommendation for the new President is Barbara Tuchman's **March of Folly**, particularly the last section, *America Betrays Herself in Vietnam*. By the 1990s American's seemed to have learned only one important lesson from our decades-long involvement in Vietnam — we should treat returning veterans with dignity and respect. We should care for the physical and psychological wounds of those we send to distant lands to fight our battles for us.

Tuchman reminds us that there are other equally important lessons from the Vietnam War we have forgotten. When we err in foreign adventures, we need not compound the error by denying it. Saving face is less important than recognizing our mistakes and changing course. Furthermore, we need to recognize that the exercise of American military or economic might harms us if that exercise of power violates the core values of the nation. She argued that we failed to understand in Vietnam, "…that problems and conflicts exist among other peoples that are not soluble by the application of American force or American techniques or even American goodwill." Let us not fail to understand that in the future.

So, what do you say Hillary, Donald, Bernie, Ted, or Marco, do you have time in your busy schedules for a few good books?

National Park: To Which Constituents Are Our Members of Congress Listening?

March 6, 2016

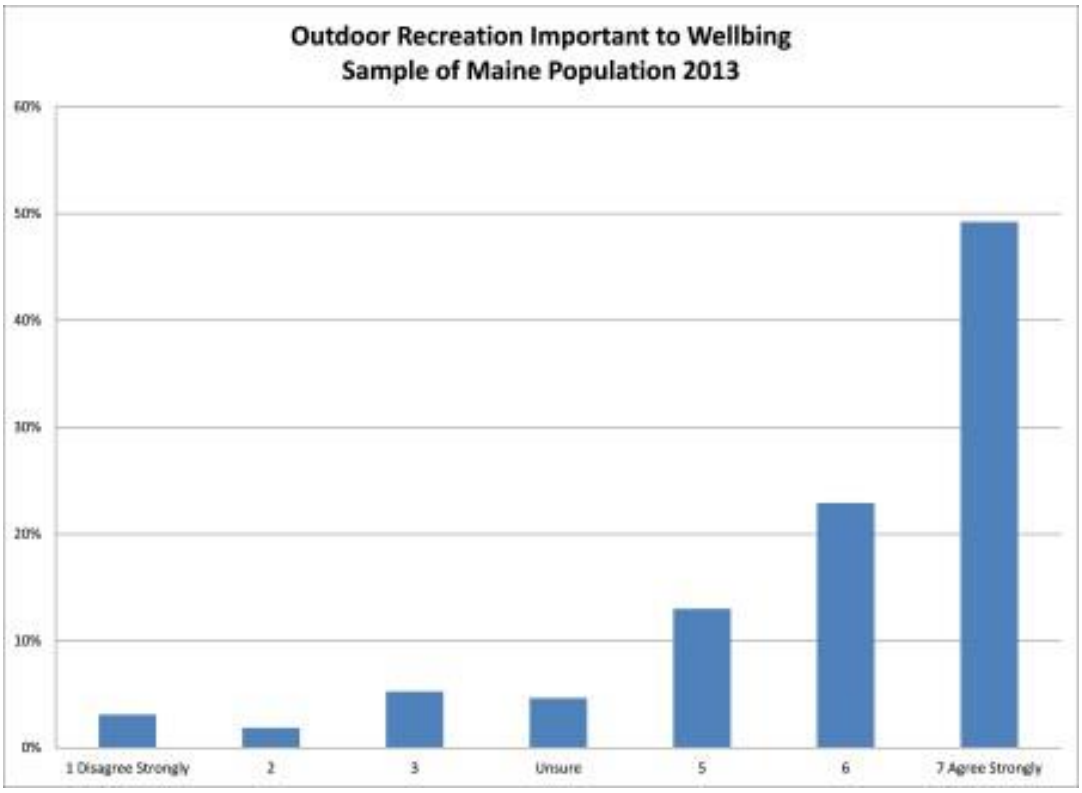
By Mark W. Anderson

Last November Senator Collins, Senator King, and Representative Poliquin made it clear that they oppose the creation of a Maine Woods National Park or a National Monument, which might be a first step toward a park. The "conditions" the members list in their letter to President Obama regarding a possible National Monument designation show that they are responding to a narrow group of interests rather than to the diversity of perspectives of their Maine constituents.

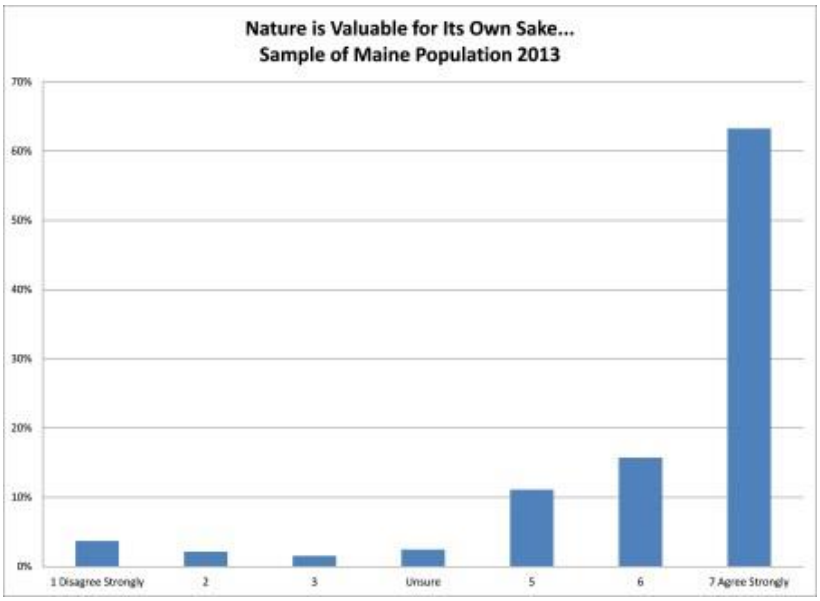
In their letter to the President, they mention public support for the creation of a Maine Woods National Park. Though they do not cite the data directly, I think they are referring to the poll conducted last fall by Critical Insights. This poll found that 60% of Mainers support creating a National Park. The majority of respondents in Northern Maine where the Park would be located also support its creation. My first question then is, does not this majority of Maine citizens deserve stronger consideration by our Members of Congress on this issue?

These data from Critical Insights are consistent with unpublished survey data my colleagues and I collected in 2013. A mail survey of Maine households asked a series of questions about recreation in the Northern Forest, an area much larger than that proposed for a Maine Woods National Park. Over 300 Mainers responded to the survey, 48% of whom reported recreating in the Northern Forest in the past three years. While we did not ask people whether or not they supported the park idea, we did ask them about their attitudes toward land conservation and natural habitats.

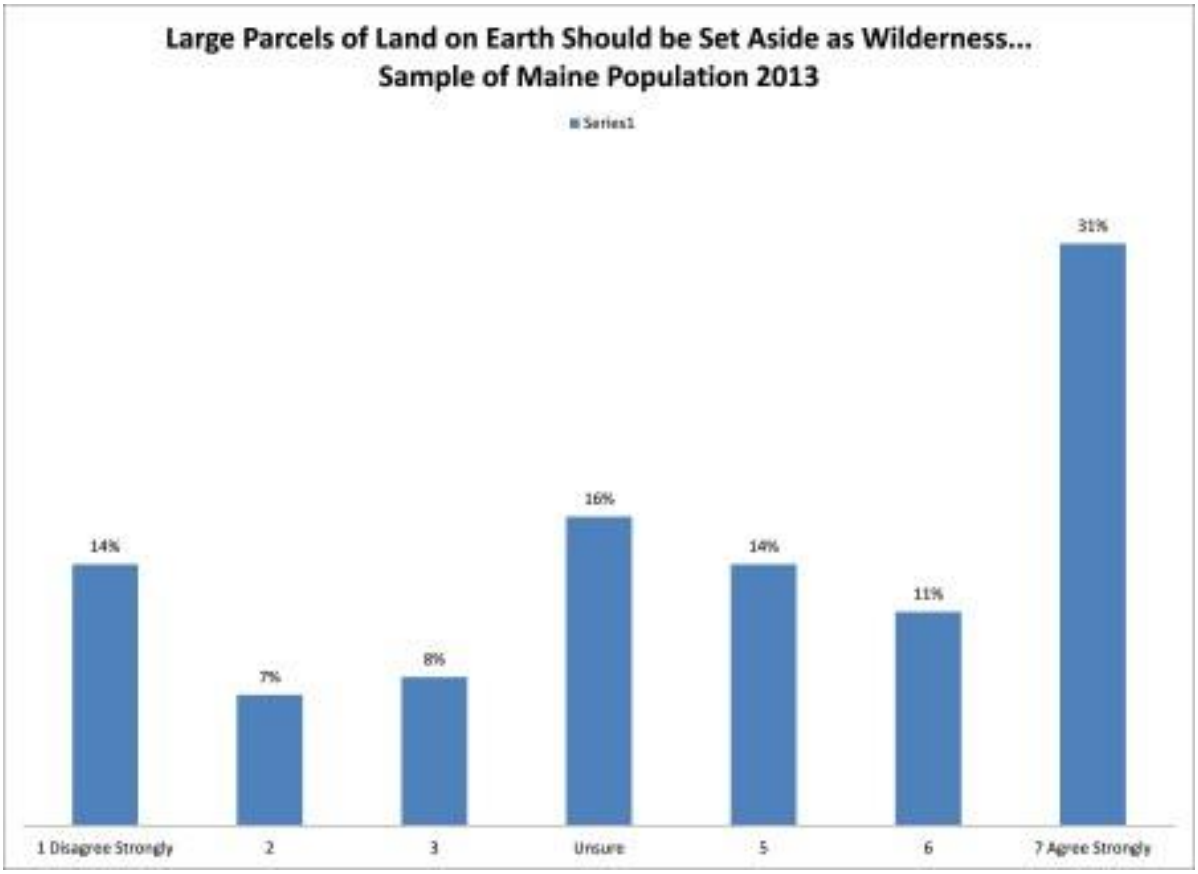
These typical Mainers value outdoor recreation. There was overwhelming agreement with the statement, "Outdoor recreation and access to the outdoors is an important part of my personal wellbeing."



Respondents also expressed a strong ethic that nature is more than just a source of goods and services for humans. There was support from a majority of respondents for the statement, "Nature is valuable for its own sake, even if humans get no goods or services from it." This was even greater than the support for a Maine Woods National Park found by Critical Insights.



And when it comes to land preservation, Mainers are also supportive of wilderness designations, at least in the abstract. There was considerable agreement with the statement, "Large parcels of land on Earth should be set aside as wilderness areas/nature preserves where humans are kept out and natural processes are allowed to take their own course." This is, of course, beyond what is being proposed for a Maine Woods National Park, which will not be nearly as restrictive of human use as a wilderness designation would be.



On the National Park issue, it appears that the citizens are ahead of our leaders. The letter to President Obama from three members of Congress reflects the traditional multiple use vision for Maine's woods. I have called this the Myth of Pinchot, the idea that we can get all uses from Maine's woods at the same time. Mainers recognize that there are tradeoffs among uses that require different parcels of land to address different wants and needs. A Maine Woods National Park and a National Recreation area are complements to existing land uses in the region, including industrial forest lands and Baxter State Park.

A patchwork of varying land uses will best serve the needs of Mainers now and into the future. The concern for future generations is a strong ethic among our people if not our Congressional delegation. 62% of respondents in our 2013 survey agreed strongly

with the statement, "We have an obligation to future generations to leave the environment of the Earth at least as well off as when we received it from the previous generation."

A Maine Woods National Park would be a legacy we can be proud to create. It is time now for the Congressional delegation to get on board with their constituents.

A Field Guide to the Anthropocene

March 13, 2016

By Mark W. Anderson

The last 250 years have been most unusual in human history and the time since the end of World War II has been incredible. Our ancestors would not recognize our lives today in their wildest dreams.

In my lifetime, the population of humans on the planet has nearly tripled, from 2.6 billion to over 7.1 billion people. Our consumption of goods and services, particularly in the nations of the world that first industrialized, has reached levels unimagined just a few generations ago.

I wrote about these phenomenal times last fall in my blog post Welcome to the Anthropocene. The idea of the Anthropocene is that humans have now become the "great force for change in the natural world." This was the topic of my 2015 Geddes Simpson Memorial lecture titled Open Season on Chickadees.

Since we all have lived our lives in this extraordinary time in human history, it is hard for use to appreciate how different our lives are compared to our ancestors. We need some way to appreciate intuitively these changes. We need a guide to this new Epoch called the Anthropocene.

Using the talk I gave last fall on this topic, I am pleased to make available on my UMaine School of Economics page:

Open Season on Chickadees: A Field Guide to the Anthropocene.

What Moss Has to Teach Us About Gratitude

March 19, 2016

By Mark W. Anderson

Robin Wall Kimmerer is a plant ecologist at the SUNY College of Environmental Science and Forestry. She also is an eloquent writer who makes the natural world shimmer with her descriptions. Her book **Gathering Moss: A Natural and Cultural History of Mosses** will make you see moss in a new light. And once you see moss differently, you will start to appreciate more fully the rest of nature and its role in our lives.

I was particularly struck by the chapter *The Forest Gives Thanks to the Mosses*. Kimmerer relates the various ways that mosses benefit the rest of the forest. She imagines the trees and soils and animals giving thanks to the mosses for what they do. Ever since I read this chapter my walks in the woods have been different. I notice moss and begin to appreciate its diversity. It is on rocks and fallen logs. It climbs tree trunks and spreads across the forest floor, holding rain fall and changing micro-climates throughout the woods.

Mosses that Kimmerer imagines being thanked by other parts of the forest are a metaphor for our lives. We see a way to be like the forest trees. We begin to recognize those things around us that contribute to our lives in seemingly insignificant but actually meaningful ways. From this experience we can see how the prevailing politics of dissatisfaction that infects our culture is not only unhealthy but also misplaced. Despite the many challenges of modern society, most of us in this country live lives of unprecedented material wealth. We are like trees that are sustained by mosses, even though we do not always express gratitude the way Kimmerer imagines the trees giving thanks.

Some of this human wellbeing we enjoy is at a cost to the very natural world that contributes to our wellbeing. As an example, Kimmerer tells in this book of the costs to the forests of Oregon from the harvest of mosses for use in ephemeral flower arrangements. We take without thinking so that our flower arrangements are more "natural," without appreciating what is lost in the forests stripped of these mosses.

Just as forests are diminished by the harvest of moss for human pleasures, society suffers when we focus on only what we don't have (why aren't I as rich as Donald Trump) and forget to be grateful for all that we do have (we are among the wealthiest

humans in history). Mosses and their forests can help us learn to make this shift from grousing to gratitude.

Kimmerer captures this feeling when she says, "The patterns of reciprocity by which mosses bind together a forest community offer us a vision of what could be. They take only the little that they need and give back in abundance. Their presence supports the lives of rivers and clouds, trees, birds, algae, and salamanders, while ours puts them at risk. Human-designed systems are a far cry from this ongoing creation of ecosystem health, taking without giving back. …I hold tight to a vision that someday soon we will find the courage of self-restraint, the humility to live like the mosses. On that day, when we rise to give thanks to the forest, we may hear the echo in return, the forests giving thanks to the people."

In my next walk in the woods, I will join with the trees and find a patch of moss to thank.

How to Know If You Are Living Sustainably

March 27, 2016

By Mark W. Anderson

Sustainability?

Sustainability is a powerful concept, one developed over the past thirty or more years. In the 1980s, sustainable agriculture was the term adopted for an alternative to the industrial agriculture of the post-World War II era. UMaine's excellent Sustainable Agriculture program was born in this time out of the vision of Frank Eggert and the leadership of Wally Dunham. Sustainable development was a broader concept for dealing with the twin problems of global poverty and environmental stress. Sustainable development was the intellectual core of the United Nation's World Commission on Environment and Development, the so-called Bundtland Commission.

The 21st Century saw the evolution of these ideas into an emerging discipline called sustainability science. The Proceedings of the National Academy of Science (PNAS) now has a section dedicated to Sustainability Science and another academic journal, Sustainability Science, is focused on the subject. Here too with sustainability science, UMaine is a leader with its George J. Mitchell Center for Sustainability Solutions.

Powerful ideas can also cause problems (for example, see my blog post on "renewable" energy), and sustainability is no exception. Arguing for sustainability is easy; determining exactly what that might mean is challenging. It has become fashionable for organizations – governments, businesses, charities, etc.—to assert their commitment to sustainability. It is in vogue to appoint a chief sustainability officer in large corporations. And most significantly, we are all urged in various ways to live more sustainably.

How do we know if an organization's policy on sustainability is meaningful or just greenwashing, the claim of environmental commitment without any real change in behavior? This same question applies to us in our personal lives as well. If we put out a recycling bin once a week or drive an electric car, are we doing our bit for sustainability? Or are we just fooling ourselves (and trying to fool our neighbors) that we really care about all this sustainability stuff? As my good friend and sustainability researcher Tim Waring says, we need a theory of sustainability to judge what behaviors are sustainable. The best place to start figuring out such a theory is in our personal lives.

How do we know if we are living sustainably?

There is broad agreement in the vast academic literature on this subject that achieving sustainability for humanity and our planet entails at least three things:

- Taking care of the needs of those people alive in the present
- While leaving the planet so that people in the future can take care of their needs
- And preserving the natural systems on the planet that we and the future rely upon

If we accept this as a starting place, there is a simple way to answer the question about the sustainability of our lives. We are living sustainably if the other 7 billion people on the planet could live in the manner we do, if then there would be enough left over for the 8-9 billion people who will be living on the planet in the future to live the same way, and if the effect of all these lives would not do irreparable damage to nature. The way to think about this is to ask yourself a simple question: What would happen if over seven billion humans were do live as you and I do in Maine?

To make this concrete, put this question into the context of climate change and personal carbon dioxide emissions. The average American emits more than 20 tons of carbon dioxide each year from their food, shelter, transportation, and other consumption. Is this sustainable? A group of scientists at Princeton University tackled this question by calculating the most carbon dioxide that could be emitted and not irreparably damage the global climate system. They made several key assumptions that are consistent with the definition of sustainability:

- We should reduce global emissions so that the concentration of carbon dioxide in the atmosphere is reduced to 350 parts per million
- This reduction in emissions would stabilize the global climate
- Each of the 7 billion humans on the planet would get some access to fossil fuels, including the over 1 billion humans living on less than $2 per day and now have virtually no fossil fuel consumption

Using these assumptions and some very careful research, they concluded that the most any one person should emit is nine tons of carbon dioxide a year, about half of what the average American currently emits. Any more than that and we are not living sustainably.

The first step in sustainable living is knowing our individual impacts. This is particularly easy to do with global climate change because we know the primary cause is carbon dioxide emissions. Those emissions all come back to lifestyle choices that each and every one of us makes. If you are curious whether you are closer to the U.S. average or the sustainable level of carbon dioxide emissions, I have a tool you can use to estimate your household's emission levels.

Sustainability beyond greenwashing is living in such a way that the rest of humanity could enjoy the same quality of life we do, now and into the future. The challenge is figuring out what that way of living means for us.

A Modest Proposal for Public Schools Reform

April 2, 2016

By Mark W. Anderson

Over the past two decades we have witnessed a flurry of school reform efforts, from No Child Left Behind to the Race to the Top to the Common Core Standards Initiative. I am skeptical that any of these is making a significant improvement in the quality of education in American public schools. The premise of each of these initiatives is that a bureaucratic, top down process with continuous testing of results improves education. This thinking is not limited to K-12 education. It is this same flawed premise that is at the heart of the University of Maine System's "One University" initiative.

When I think of my own education, what inspired me were interactions with great teachers, whom I remember with gratitude. A good education is not about mastering a homogenized curriculum that can be evaluated with standardized exams. It is about teachers and students exploring together the world of ideas, the tools of communication, the approaches to problem solving, and the skills to find information. Teaching and learning is about good teachers and inspired learners; it is not about educational bureaucrats, educational consultants, standardized test designers, and curriculum coordinators.

So for me, school reform should be about giving students more time with dedicated teachers held to the highest standards. More time will lead to broader and deeper learning. My modest proposal for school reform is to institute a longer school day and a longer school year. I can imagine a school year that has four 11 week terms, each separated by a two week break. Teachers would work and be paid like other valued professionals in our society and have four weeks of vacation a year. This higher pay would reflect the value we should place on teachers in this society. That higher pay would also attract more talented people to the profession and we could demand more excellence from our teachers.

This is essentially year-round school to replace the current school calendar which was designed to accommodate the child labor needs of the 19th Century agricultural economy. Year-round school, without the need to teach to the test, would allow a more relaxed pace for deeper and broader learning. It would use the physical plant of our public education system more efficiently. It would encourage students to master skills more fully by being able to literally spend more time on task. Malcolm Gladwell

reminds us in his book Outliers of the power of the ten thousand hour rule. Mastery — in this case mastery of communication, quantitative, and critical thinking skills — comes from time on task.

Obviously year-round school would cost more than our current system, but to have a better educated society in the future seems to me worth it. Some of the increased costs would come from savings generated by eliminating the educational bureaucrats in Augusta and Washington, the educational consultants designing homogenized curricula, and other consultants designing standardized tests to evaluate students' conformity to the expectations of the designers. The rest of the costs are an investment in our future.

When it comes to reforming education, I will put my money on the time that students spend with excellent teachers.

We May Not Be Ignorant Enough

April 10, 2016

By Mark W. Anderson

The Maine House of Representatives recently passed LD 1600 to show its displeasure for the idea of a Maine Woods National Monument. I asked a Legislator who voted for this measure why he did so when the polling data consistently show that Mainers, including a majority in the Northern counties of Maine, support the idea of a National Park in the Maine woods, the outcome a National Monument declaration will likely lead to. His response was terse: "The people of Millinocket area voted this down… I believe in local control." (Of course, none of the proposed park is in the town of Millinocket, but that is beside the point here.)

The idea of "local control" is typical of how we think of public policy making in American Democracy. We decide which interest has priority for us in a particular policy area and then support the policies that respond to that particular interest. Presidential candidates are often characterized in terms of their appeal to voters of various interest groupings – gender, race or ethnicity, age, education level, region of the country, marital status, etc. Indeed the very structure of the Federal Constitution was designed to balance interests using a system of countervailing powers. As Madison explained in Federalist Paper No. 51, we needed a system of checks and balances to control the effects of power held by various interests.

There is a way to think about public policy as more than just the interests of specific groups battling to see which will prevail in the political contest. My inspiration for this is the American philosopher John Rawls. In his *magnum opus* A Theory of Justice, Rawls worked out the rules we would need to adopt to establish a just society. There is much in Rawls' work that is profoundly important (and challenging to digest), but I want to focus on one small part of this argument.

Rawls considered how we might choose the rules to establish justice in our society when everyone has a set of interests. How might we transcend our own interests? He suggested that we conduct a thought experiment where we are part of a convention to fix rules, in his case rules for justice in society. All participants in such a convention would be behind a "veil of ignorance." This is really hard to imagine. They would not know their own age, race, gender, class, education level. They would be ignorant of their own intelligence, tolerance for risk, and even of the generation they exist

in. Ignorance of their self-interest would make participants sure to protect to themselves from the adoption of rules that might affect various interest groups. Self-interest becomes interest in effects on everyone.

Rawls did not address the use of the veil of ignorance in public policy realms, but we can think how this approach might change our policy making. Adopting a veil of ignorance in making policy is not the same as empathy of a particular group. It is often said that to understand people we need to walk a mile in their shoes. The Rawlsian approach is different. In it we don't know in whose shoes we are walking and our ignorance will induce us to adopt policies that are more likely to be fair to everyone.

Let's return to a Maine Woods National Park. For most of us the first question we ask about a new park is, what does that do for us? But try to imagine how we might think about a park if we were ignorant of whether we live in Millinocket or Portland. What if we did not know whether we were woods workers or software engineers, hikers or hunters, or whether we were born in 1952 or 2052? This is hard to do honestly, our self-interest cannot help but creep in. But even if we do adopt the veil of ignorance about our interests, it requires a lot of careful analysis to think about what the best policy is for everyone.

When I try to use this one issue as an exercise in thinking behind a veil of ignorance, a Maine Woods National Park still makes sense to me. The land at issue is largely out of commercial timber production, paper mills seem not to be coming back to the Penobscot River valley, a park would diversify the regional economy and recreational opportunities, and local communities elsewhere that have gotten new parks since the end of World War II almost universally come to like the change.

Beyond the National Park issue, when I think about political candidates or major public policy issues, I try the Rawlsian approach when deciding what I think is the right thing to do. This type of thinking is challenging. How can I be ignorant of my age, race, generation, etc.? Sometimes though, being more ignorant can be a good thing. It can help us get beyond just asking what is in it for me.

Valuing Investments in Conservation

April 17, 2016

By Mark W. Anderson

In early May the Orono Bog Boardwalk will open for its 2016 season. This joint venture of the Orono Land Trust, the City of Bangor, and the University of Maine is a hidden treasure. For me, there is a magical moment on the boardwalk when you emerge from the woods onto the open space of the Orono bog. The walk holds more pleasures as well. It is a walk that helps me better understand the nature of Maine. If you have not visited the boardwalk, this should be on your 2016 must do list.

On more than one occasion people have asked me what is the economic value of the boardwalk. As a resource and environmental economist there is no easy answer to this question. There are at least five ways to think about the value of projects like this that conserve nature and provide access for humans to enjoy and learn.

First, the most fundamental way to think about the economic value of the boardwalk is the idea of opportunity costs. The nature around the boardwalk and the resources embodied in the structure itself could have been put to other uses. The land might have gone for housing or commercial development and the money and hours of

volunteer labor might have gone to other uses. At the very least the economic value of the boardwalk equals these costs of the opportunities that were given up.

Second, the boardwalk has effects on neighboring private properties. In the last twenty years economists have documented how nature preserves, parks, and recreation areas all raise the value of properties in their vicinity. The effect extends to environmental improvements as well. Former UMaine economist Kevin Boyle, graduate student Holly Michael, and Maine DEP biologist Roy Bouchard, for example, showed how better water quality in lakes improves property values of residences around lakes. So the extent to which the bog boardwalk raises residential property values, those higher values are part of the boardwalk's economic value.

A third way to think about economic value is economic impact. Conservation and nature-based tourism facilities create jobs and support local businesses through the expenditures of users, investments in the infrastructure, and the economic multiplier effects of these expenditures. A great example of this type of research is the study by Bowdoin College economist David Vail of the economic impacts of the Appalachian Mountain Club's Maine Woods Initiative. Vail documents the jobs and income effects that this highly innovative AMC initiative has in one of the poorest areas of Maine. In the report AMC Senior Vice President Walter Graff speculates how this project is perhaps "…a replicable model for future land conservation and economic development."

Economic impact in this sense is harder to measure for the bog boardwalk because most of its users are local residents and it is difficult to say what of their local expenditures are attributable to their use of the boardwalk. The fact is that virtually all of the work maintaining and programming the boardwalk is volunteer rather than paid labor. Boardwalk Director Jim Bird, Founding Director Ron Davis, and long-time board member Jerry Longcore have contributed thousands of hours of effort, plus a cohort of stalwart volunteers pitches in every year as well. (When you visit the boardwalk you will see a poster documenting all of this effort.)

A fourth way to think about the economic value of the boardwalk is to consider, very simply, its value. Tens of thousands of people every year stroll, study, paint, reflect, converse, teach, and otherwise find satisfaction at this wonderland. For each of these people the boardwalk creates value, wellbeing, utility, happiness, or sense of purpose. Over the past 30 years economists have tried to place a dollar value on such experiences through techniques called non-market valuation. The environmental community has embraced this idea because they feel the need to have dollar values to justify public and private resources spent to build and maintain the resources. The goal for environmental groups has been to trust that environmental values will stand up to market values in so-called benefit-cost analyses.

While I participated in some of this research in my career (ask me about the arcane topic of temporal reliability of contingent values of black fly control), I am increasingly skeptical of such approaches. There are technical questions about how good these techniques are at estimating dollar values that are equivalent to the values generated by markets for private consumption goods and services. More fundamentally, scholars including economists worry that searching for dollar values "commodifies" nature and actually leads people to value it less over time.

This leads to my fifth and final idea of economic value. Environmental ethicist Bryan Norton (see his book Sustainability) has argued that there are some things in nature that are just so important to humans that they should be protected. No toting up of benefits and costs should be required. This is not an economic rationale per se, rather it says that the human economy is nested within a larger system (nature) that has parts to it that are too important to treat as just another input in our economy.

Of course, beyond economic value of the boardwalk, there is intrinsic value in the bog without reference to human value. I wrote about this last year in What Are Birds For? Nature does not need human use or appreciation for it to have value.

All of these are legitimate ways to think about the value of the Orono Bog Boardwalk, parks, clean water, hiking trails, etc. For me, these many values of nature and the facilities we build to enjoy and conserve it are what make Maine the special place that it is.

The Promise of Ecological Economics

April 24, 2016

By Mark W. Anderson

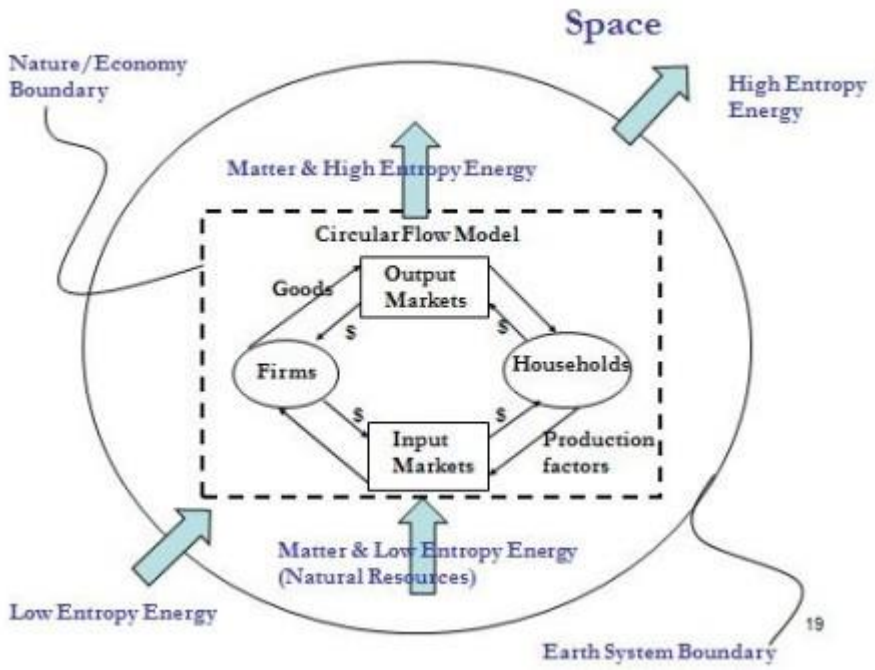
Several of my colleagues in the UMaine School of Economics and I have had the same experience. When we meet someone new and tell them we are economists, we are asked for investment advice or an opinion on when the Federal Reserve is likely to raise interest rates. There is often a look of disbelief when we tell them that we do not do that kind of economics. The common assumption is that economics is only about business or finance. The reality is that there are many types of economics just like there are many types of biology. You would no more ask a botanist for help with genetic testing for cancer treatment than you would ask an ecological economist (that's me) for business cycle forecasting.

Like in other disciplines, economics is a big and diverse field with both complementary and competing theories and practices. There are financial economics, resource economics, macroeconomics, behavioral economics, experimental economics, environmental economics, welfare economics, Marxist economics, and so on. I am always puzzled when people are surprised that there are so many different parts to the discipline.

It is common to assume that economics is economics. Like in other disciplines, there are sets of assumptions and practices (called paradigms) that at times come to dominate economics. In the mid-20th Century such a dominant paradigm took hold called neo-classical economics. The paradigm assumed, among other things, that humans behave rationally, that markets are effective ways to allocate scarce resources among competing uses, and that trade usually benefits both trading partners. The application of the neo-classical model in public policy yielded dramatic population and economic growth in the post-World War II era. The material quality of the lives we lead today came from those policies.

It was not far into the application of neo-classical economics before economists began to worry about the effects of this model in several dimensions, but particularly in terms of the effects of growth on natural resources and the environment. The first manifestation of this concern was the establishment of Resources for the Future (RFF) in Washington, D.C. in 1952. Economists were anxious about the adequacy of natural resources to support the growth that was occurring in the global economy.

Along with the establishment of RFF was the development of new types of economics, such as natural resource economics and environmental economics. From this came well-developed theories of externalities (explained in my blog post Do You Have a Problem With Gas?). Population growth and economic growth create pervasive "external effects," costs that spill over from one consumer to the rest of society. Natural resource and environmental economics became a major part of the discipline and a challenge to some of the assumptions of the neo-classical paradigm. Markets can and do often fail and collective intervention is needed to fix this failure and protect us from its adverse effects. Vast work was done on the economic theory and practice of resource use and environmental protection.



Ecological economics developed in the 1980s out of a recognition by some economists and ecologists that resource and environmental economics did not go far enough in questioning the assumptions of the dominant paradigm. This new sub-discipline was rooted in the earlier work of economists Nicholas Georgescu-Roegen (The Entropy Law and Economic Process) and Herman Daly, sometimes called the father of ecological economics. The basic idea was that some parts of the natural world are qualitatively different from other resources in the economic system. In particular, energy needed to be accounted for by more than just its price in markets, even if that price was adjusted to reflect externalities. This is an understanding that the economy is a human system nested within a larger natural system whose laws matter for the economy.

Ecological economics also poses fundamental questions for the idea of economic and population growth, starting with the groundbreaking work of Herman Daly on the steady state economy (see my survey of this topic in the Encyclopedia of

Sustainability). This led to a fundamental questioning of the idea that economic growth will inevitably lead to human wellbeing, "a rising tide lifts all boats." This idea has now evolved into the concept of sustainable de-growth, addressing the question of how to provide human wellbeing on a finite planet.

Ecological economics is now firmly established as an important part of the disciplinary landscape of economics. There is an International Society for Ecological Economics, several national societies around the world, and its own academic journal, Ecological Economics. In fact, this journal has so influenced the discipline that it is now ranked by Journal Citation Reports as the 25th most impactful economics journal out of a total of 589 in the discipline. Ecological economics and other parts of the discipline are effectively challenging the dominant paradigm, evidence that economists are still learning.

Stereotypes are often misleading. This is certainly true in economics and in other academic disciplines. The next time you meet and economist see if, rather than getting investment advice, you can learn ways to help save the planet.

Wealth and the Thorny Issues of Envy and Guilt

May 8, 2016

By Mark W. Anderson

Bill Trotter's Going Coastal blog on the most expensive home for sale in Maine got me thinking about the issue of wealth and environmental quality. In the past I argued that we can know whether we are living sustainably if the over 7 billion people on Earth could live as we do and still leave resources from the planet for future humans to live in that same way. Clearly, anyone who built this Islesboro property or who can afford to buy will fail that test. The excessive consumption of resources by people living like this is just one of the problems created by the large increase in income and wealth inequality in the United States since the mid-1970s.

It is easy to blame the richest people in the world for multiple problems. Yet our relationships with the wealthy are conflicted and part of the problem as well. Envy and guilt in response to rich people contribute to everyone's failure to live in a way that might meet this sustainability ideal. We can do better.

The envy part is clear. Marketers use images of the rich and famous to stir our desire for consumption, consumption of particular goods and services. The classic example of this was Gatorade's ad campaign, "I Want to Be Like Mike." The message was that consuming Gatorade was the path to being like Michael Jordan. Cars, clothing, travel, jewelry, restaurants, mobile phones, and houses are sold to us using images of wealthy and famous people to urge on our consumption. The message is, consuming like these people will make us happy. The problem is that we can't always afford a Rolex watch, Hugo Boss golf shirt, or a new Platinum model Cadillac Escalade. The message is that we should want these goods. We respond to that message with envy for those who can afford them and try to consume beyond our means and beyond what is good for the environment.

This envy is the root of the paradox of happiness uncovered by scholars like economist Richard Layard. It is a puzzle to understand how in the post-World War II era citizens of Western nations could experience growing real consumption and no change in happiness. More stuff was supposed to make us happier. Since the rich grew even richer faster than everyone else, the reference point for happiness went up. It was increasingly harder to be like Mike even as our prosperity increased in real terms. This leaves citizens in the U.S. who experience unprecedented physical wellbeing in historical terms unhappy unless growth in consumption continues.

And growth in consumption for all of us means more matter and energy from the environment. It means we crowd out more plant and animal species, causing increasing rates of extinction. It means we convert more of the planet's surface to meet human wants and needs. The connection is direct. Wealthy people mean more envy from the rest of us, which creates more demand for consumption, which threatens the very life systems on the planet.

To add insult to injury, the wealthy provide us moral cover even when we know deep down inside that we don't need the watch, the car, the bigger house, the fancy vacation. Whatever guilt we may feel from living beyond our needs and the planet's ability to provide for 7 billion humans, at least we are not as bad as the rich. The environmental impacts of their watches, cars, summer houses, and fancier vacations eclipse our impacts. This helps us manage our guilt and quiets that little voice telling us that these are things we might forego.

So when it comes to the impacts of our consumption and whether we are living sustainably, rich people create a thorny problem for us. We envy their consumption, which makes us want to consume more ourselves. Clever marketing can use that envy to get us to make that next purchase. At the same time the rich help us assuage our guilt. At least our environmental impacts are not close to theirs, giving us license to consume just a little bit more.

We need to resolve these issues if we are to find a path to sustainability.

Economic Concepts You Should Know: Rent Seeking Behavior

May 15, 2016

By Mark W. Anderson

It is common for politicians and media writers to speak of a dichotomy between free markets and government regulation. Proponents of free markets argue that they create economic opportunities and generate efficiency in the overall economy. Those favoring government regulation believe it creates economic fairness, worker rights, or environmental protection. The reality is that the ideal of free markets is misleading and there is no simple dichotomy between markets and government regulation.

Markets and the economic outcomes they create are always shaped by the rules set by society and the way those rules are enforced. Economics is much like sport. If you want to explain outcomes of games or the economy you need to know what the rules are and how those are going to be enforced. Say your team's quarterback likes to throw footballs with lower air pressure and your rival's quarterback prefers throwing footballs with higher air pressure. The rules about what the football air pressure should be and how those rules are enforced will give advantage to one team or another. The same applies to markets.

If small businesses get an income tax break for the purchase of new vehicles, then the sales of pick-up trucks and vans will increase – benefit to the auto companies who specialize in these vehicle types. If labor laws make it hard to organize unions or allow workers to opt out of paying dues when there is a union — benefit to the companies with large numbers of workers. If you have an import business with ties to Brazilian sugarcane producers, you are disadvantaged by import duties on ethanol designed to favor American corn-based ethanol. This is the reality of the American market economy. Statutes, rules implementing these statutes, and their enforcement all matter for the outcome of markets. There never have been free markets.

The obvious effect of this reality is to encourage firms and individuals to find ways to affect the laws and regulations that are most important to their personal circumstances. Economists call this rent seeking behavior. The idea of rent is that when you are successful in getting the market rules to favor your circumstance you will earn more money, a rent, then you would have otherwise. The rent is the premium

caused by rules in your favor. In the extreme this results in what *The Economist* magazine calls Crony Capitalism. When rents are generated through manipulation of regulatory processes, economists sometimes call this regulatory capture. In the early 1980s I worked on milk price regulation in Maine and I was witness to the ongoing process where milk producers, processors, and retailers all worked to shape regulations to favor their individual business positions. They tried to capture the regulatory process to generate rents for themselves or to preserve rents created in earlier regulatory processes.

Rent seeking is not always obvious. Effective rent seeking behavior is often couched in terms of the public interest. It is not very compelling in either legislative or regulatory processes to argue for rules of the game because they help my firm or industry prosper. Rather, the goal is to argue that rules generate public benefits. For example, in the 1970s makers of catalytic converters for automobiles were strong proponents of stricter, technology-based auto emissions standards. This sold more catalytic converters. Renewable energy companies used the promise of reduced greenhouse gas emissions to promote market rules to generate rents for them, even when the positive environmental effects are minimal at best. And hedge funds and supposed investors got Maine to establish its New Markets Capital Investment program with the promise of job creation. The results, large rent payments to the firms behind the legislation yet no new jobs for Mainers.

The rules of the game matter and the outcomes of markets are defined by those rules. When we hear that a proposed new law or regulation will create jobs, protect the environment, generate new and better energy supplies, or otherwise promote the public interest, we should be wary. The first question to ask is, how does the proposal change the rules? The second question is, who are the winners and losers? Then we can make better judgements about the policy.

$80 Coffee Beans — Yikes!

May 22, 2016

By Mark W. Anderson

I have been reading about coffee in our culture.* I was intrigued by the idea of Third Wave Coffee business discussed by philosopher John Hartman. The Third Wave in coffee refers to the growth of small, independent coffee roasters who developed as alternatives to Starbucks when that company grew and disaffected coffee drinkers looked for alternative sources for their caffeinated drinks. If you recognize the brands Stumptown, Intelligentsia, or Columbia Street you know what I am talking about.

Hartman sees the Third Wave as a new form of business where companies try "to do good and make money." He calls this a form of "hybrid capitalism, balancing the profit motive with social entrepreneurship." So companies of this type provide a relatively small clientele with great tasting coffees (have you ever been to a cupping?) and verified attributes in the sourcing of coffee beans– organic, shade-grown, bird friendly, direct trade (it's better than fair trade), single-farm sourced, etc.

Economists would recognize this as not at all new but rather a new manifestation of one of the most common market forms in modern capitalist economies – monopolistic competition.

If you took an economic course you probably learned first about two market types called perfect competition and monopoly. In reality, neither exists in our economy in its pure form, but learning about these helps one to understand markets in the real world, where monopolistic competition is common.

Competitive markets are supposed to be ideal because they produce goods and services for consumers at the lowest cost and use society's scarce resources most efficiently. Monopoly is supposed to be bad because it allows one firm to earn larger (monopoly) profits, disadvantaging both consumers and society at large. Firms would like to operate in a monopoly market if they could.

In monopolistic competition, firms try to earn larger profits but still face competitive pressures. Third Wave coffee is a good example. In this market type the company tries to convince consumers that there is something special, maybe even unique, about the products sold under its brand. The company tries to differentiate its product from those offered by the competition. The goal is to shift the perspective of the coffee consumer from seeing herself as a coffee drinker to seeing herself as, for example, an Intelligentsia coffee drinker. If successful, the firm now has a monopoly on coffees of that brand and can successfully charge monopolist prices.

For a Third Wave coffee company, the goal is to satisfy existing consumer interest or create new consumer interest in attributes that its customers believe only that company can offer. These attributes differentiate its products. Since these are often sophisticated consumers, it is often important to prove these differences. Hence we see schemes to certify desirable product attributes. Throughout the economy we see certification programs for fair trade, gluten free, organic, kosher, sustainably harvested, etc.

The competition part of monopolistic competition is that firms are always trying to create new and better differentiation to set themselves apart from those who have been successfully earning monopoly profits. This very phenomenon is seen as Third Wave coffee companies differentiated their brands from Starbucks as it grew beyond its original ethos as a brand.

We see monopolistic competition throughout our modern economy, often expressed in the business media as a result of good brand management. I noted that Swedish professional golfer Henrik Stenson wears Hugo Boss apparel (pro golfers often appear to be walking billboards). I checked and found I could get a Hugo Boss polo for as little as $70.00 and might pay as much as $275.00 for one. (I did not place an order.) Clearly the goal of paying Stenson to wear these shirts is to move me from being a polo shirt buyer to a Hugo Boss shirt buyer, for which that company would earn monopoly profits from my order. The same idea motivates Nike to pay LeBron James and Under Armour to pay Bryce Harper.

So for me, there is nothing new about Third Wave coffee businesses. It is good that farmers in the tropics get paid a fairer price for their coffee beans and that coffee is grown with the conservation of bird habitat in mind. But I do not forget that the desired end is to convince me to pay premium prices so that the firms can earn

premium profits. There is nothing hybrid about this form of capitalism. It is a dominant market type in the Western World today – monopolistic competition.

If you please, I'll have a cup of La Esmeralda Panama Mario Carnaval!

*Specifically for this blog: Hartman, John. (2011). Starbucks and the Third Wave. In Parker, Scott F. and Austin, Michael W. (eds.). Coffee – Philosophy for Everyone: Grounds for Debate. Chicester: Wiley-Blackwell

How To Know If You Are A Mainer

May 28, 2016Maine, Maine Tourism, Opinion

By Mark W. Anderson

The idea of what makes a Mainer intrigues me. Years ago I wrote about authenticity in Maine literature in an essay about E.B. White and R.P.T. Coffin called Two Pigs from Maine. More recently, my colleagues and I in UMaine's School of Economics wrote about survey research we did on environmental values of Maine citizens. Being a Mainer is clearly not an accident of birth, as I suggested in an earlier blog. So how do you know if you are a Mainer?

You know you are a Mainer if you think Tyvek is an exterior cladding for houses. The ubiquitous grey Tyvek gives years of service until homeowners get around to something more permanent. I have noticed a recent trend for more upscale homeowners to use Zip system for their exterior finish instead of Tyvek. The deep green with black trim is more colorful and might give a decade or more of good service before any shingles are needed.

You know you are a Mainer if you have a love/hate relationship with tourists. Mainers recognize that meals and lodging taxes and gas taxes paid by tourists, and property taxes paid by hospitality industry, all help pay for public services in Maine. (But why aren't tax rates, like hotel room rates, higher in the busy season?) We love the financial help that comes from tourism, even if we don't work directly in that industry. At the same time, Mainers love it when the tourists go home and once again we get our beautiful state to ourselves.

You know you are a Mainer if you wonder why schools are closed when there are 6 inches of snow. That doesn't even count as a snow storm.

You are a Mainer if you think coffee brandy is actually brandy.

You know you are a Mainer if you have two heating systems for your home and you are thinking of adding a third one. Wood stoves, oil burners, pellet stoves, propane heaters, and mini split heat pumps (we just put ours in) are found in multiples in Maine homes. This strategy helps us shift fuel sources in response to higher prices and reflects our continual search for the perfect heating system. Of course, smaller houses and more insulation would help also.

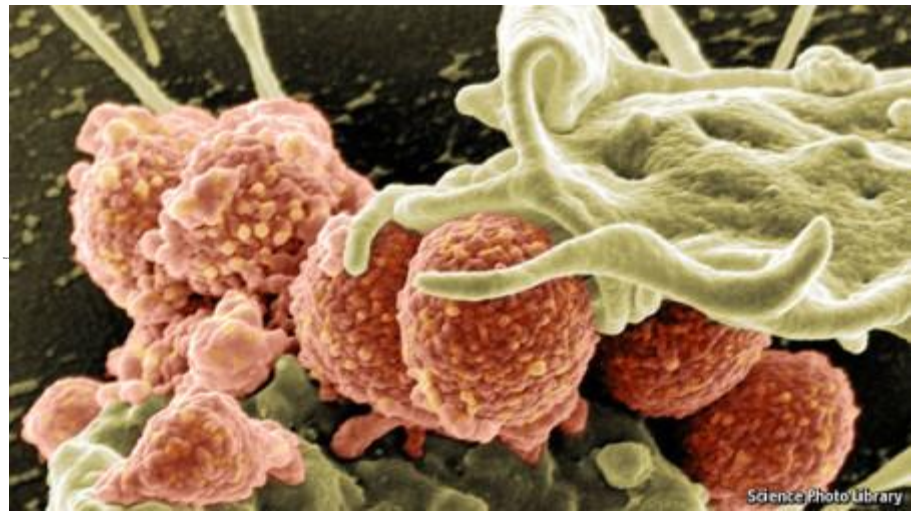
You know you are a Mainer if you no longer notice when black flies bite. The sure sign is for someone to point out the large bite on your forehead or the black fly still clinging to your earlobe, both of which you were unaware.

And finally, should there be any doubt. You know you are a Mainer if, when someone says, "He thinks he's the cat's ass," you know it's not referring to your kitty's posterior.

One Decision Rule for Buying Meat, Eggs, and Seafood

June 5, 2016

By Mark W. Anderson



Shopping for food is a fraught experience. There is so much information to process – nutritional label, brand, certification logos, cost, and the latest studies of health effects. I like to simplify the process of food buying.

First, there are two broad categories of information to which I try to pay attention: 1) healthiness of the food and 2) effects of how the food was produced, including effects on the environment and effects on the welfare of animals. It is easy to get these confused so I try to keep them separate with some simple decision rules.

Nutritional labels are helpful for the first of these issues. The rules I try to follow are a simple list of things to avoid – high fructose corn syrup, partially hydrogenated vegetable oils, salt, added sugar, and, in my particular case, wheat, rye, or barely. (My "gluten free" diet is not by choice and I would happily give it up in a heartbeat. Alas, that is not happening.)

Buying food with animal welfare and environmental effects in mind is more challenging. There are so many issues in food production and many of them are

reflected in product packaging label claims. The specific food production label claims include: USDA organic, no artificial growth hormones, climate friendly, local, grass-fed, GMO free, cage free, free range, and other aspects of the ethical treatment of animals.

Organic is one of the older label claims. I am always puzzled when I read news reports about studies that find no nutritional benefit from organically produced foods. I never chose organic foods because I thought they were nutritionally superior. Rather my preference for organic foods was because I thought they were less likely to have adverse side effects in their production. They might avoid more of what economists call externalities. This is where our behavior in markets, the purchase of food products in this case, leads to unintended consequences for other people or the environment. For example, there is good evidence to suggest that the use of herbicide-resistant corn plants has contributed to the decline of monarch butterflies in North America. So when I buy corn products produced in a certain way, I am contributing to monarch butterfly population declines. This is an unintended yet real consequence of my purchase, an external effect in economic jargon.

One issue that is getting increasing attention in the medical world is the growing resistance of some bacteria to antibiotics. So-called "super bugs" have evolved to survive treatment with even the most potent, last-resort antibiotics. Some scientists believe a contributing factor in this growing antibiotic resistance is the routine use of antibiotics in the production of beef, poultry, eggs, aquaculture fish, and even lobsters that are kept in pounds. In some cases this antibiotic use is to treat or prevent bacterial infections. But sometimes antibiotics are a routine addition to the feed given to the animals. For reasons not fully understood, routine antibiotic use in low doses makes animals gain weight faster, getting them ready for market sooner, enhancing profits. These low dose uses of antibiotics allow bacteria to evolve resistance, partly contributing to the larger human health issue.

So my new decision rule for meat, eggs, and seafood is, buy food that is produced without antibiotics. I am not worried about ingesting antibiotics from the meat, eggs, or seafood I eat. The medical issue with "superbugs" is not that I personally become resistant to the benefits of antibiotics. Rather the issue is the resistance that bacteria develop in the broader environment resulting in these new "super bugs."

One benefit of this purchase decision rule is that livestock need to be kept in healthier and perhaps more humane environments if the producers are going to avoid using antibiotics. So a no antibiotics rule might result in better treatment of the animals that feed us.

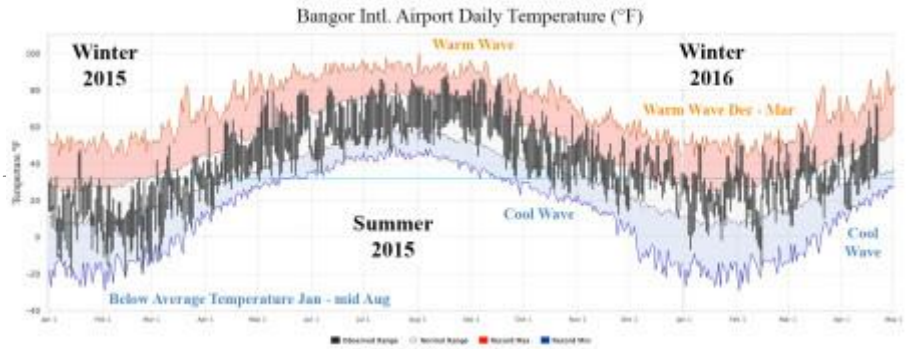
Will I pay more for eggs, beef, pork, poultry, and seafood raised without antibiotics? Certainly. That will always be the case when externalities are built into the

market like when I adopt my decision rule. I am happy to pay more knowing that when I eat these products I am not contributing to the development of antibiotic resistance.

Climate Change: Elephant in the 2016 Election Room

June 12, 2016Anthropocene, Climate Change, Maine Politics, Opinion

By Mark W. Anderson



Climate change (or as I prefer to term the issue, global change) is the ugly stepchild of the 2016 election. A non-issue for the Trump campaign (it can't be an issue if it doesn't exist) and a job creation issue for the Clinton campaign, we are in broad political neglect when it comes to the seriousness of climate change. Yet if we fail to address this issue quickly and with enthusiasm, all the other issues fights are for naught. Whether you are concerned about immigration, international trade agreements, gun ownership, income distribution, or you just want to "Make America Great Again," your interests will be swamped by the effects of global change.

In Maine we are lucky that some of our elected representatives of both parties take the issue seriously. A recent Maine Policy Review commentary by UMaine faculty member Sharon Tisher and long-time public servant Peter Mills documents the leadership of this issue by three of the four members of Maine's Congressional delegation.

Yet climate change denial remains common in the political realm. Witness the recent MPBN sponsored debate of candidates for the Republican nomination to challenge Representative Pingree for the 1st District seat in the U.S. House of Representatives. One candidate, who asserts he is a scientist, rejects the peer reviewed research of thousands of scientists who document global change and its effects on planetary systems and on human wellbeing. He shows no signs of having read any of that science but rejects it none the less. The other candidate admitted having read the "report" of the Intergovernmental Panel on Climate Change (IPCC), thought there might be something to climate change, but was unconvinced that the likely impacts were documented. Therefore, we should do nothing.

For the record, the IPCC has produced five series of reports over the past decades, each one building on the science published since the past report. Reports are typically in three parts and the latest series, the so-called Fifth Assessment Report, was in 2013-2014:

Working Group I – The Physical Science Basis of Climate Change.

This report explains the overwhelming evidence of how humans are changing the climate.

Working Group II – Impacts, Adaptation, and Vulnerability.

This report shows the likely effects of climate change on natural systems upon which we and all the other life on Earth rely.

Working Group III – Mitigation of Climate Change.

This report helps to understand steps it would take to begin to deal with the problem. Each of these reports is a "summary for policymakers."

I would wish that all candidates for national office read these more carefully than it appears those candidates have in Maine's 1st Congressional district primary contest.

Climate change deniers, like the two aspirants for Maine's 1st District Congressional seat, recently had latched onto the fact that average global temperature increases seem to have slowed or even paused in the first decade of the 21st Century. Recent data, as reported in The Economist, show that this pause was explained by climate science and that we have now reverted to increasing global temperatures. We saw this in Maine, the winter past being the warmest in recorded history.

The science is clear, humans are changing how the Earth functions, what some scientists are labeling as the onset of a new epoch called the Anthropocene. We need to challenge our elected officials to understand the science, to take the threats seriously, and treat them as more than just an opportunity for American industry and new job creation. It is the most serious problem facing all of humanity, including Americans.

Light Shows: Real and Fabricated

June 19, 2016

By Mark W. Anderson

A week ago I was putting away my book and heading to bed when my neighbors set off a fireworks show in their yard. I stopped to watch out our windows. Between the intermittent booms and dramatic flashes, I noticed a closer light show. Dozens of fireflies were lighting up the field and edge of the woods. The contrast was startling. The loud and splashy show from my neighbor represented an artifact of our industrial, globalized society — devices transported half way around the world for an ephemeral show in mid-June Maine. The fireflies, twinkling randomly in the field were somehow more real, a natural mating display of a normally invisible resident of the Maine landscape. These were light shows real and fabricated.

Robert Frost also noticed the fireflies in his garden:

Here come real stars to fill the upper skies,

And here on earth come emulating flies

That, though they never equal stars in size

(And they were never really stars at heart),

Achieve at times a very starlike start.

Only, of course, they can't sustain the part.

The link between stars and fireflies in Frost's poem struck me forcibly the day after my neighbor's fireworks when I learned that new research shows that one third of humanity is unable to see the Milky Way even on the clearest of nights. The culprit here is us. Artificial lights of human society (called by some, light pollution) so fill the urban and suburban night sky that many people cannot see the stars, including the Milky Way.

Our preference for fireworks over fireflies and artificial lighting over the stars of the night sky is one more manifestation of the coming of the Anthropocene, the idea that humans have become the dominant force in the workings of planet Earth. This change was not intentional. Rather it was the result of individual people making decisions that they believed were in their best interests. The result was the accelerating growth in human population and in individual consumption in the 20th Century.

The cumulative effect of this growth is seen in lots of ways, including our light shows. We replace the lights of nature with the light shows of humanity. My wish is that all of us might note the fireflies of the Maine summer and the stars of the night sky as a reminder of what we are losing as we are more separate from and also dominate nature. Perhaps we will decide that we can forsake some of that growth to keep some of the lights of nature in our lives.

Questions About the Second Amendment

June 26, 2016

By Mark W. Anderson

Maine Senators Collins and King took a leadership role in proposing legislation to restrict firearms purchases by those on the Department of Homeland Security's so-called "no fly list." One member of Congress responded to the media that he would be glad to vote against such legislation to show his willingness to protect "Second Amendment rights."

I thought it time to pull out my pocket copy of the U.S. Constitution and read Amendment II once again. (If you don't have one of these, the National Center for Constitutional Studies version is very handy.) Amendment II says, in full:

"A well regulated Militia, being necessary to the security of a free State, the right of the people to keep and bear Arms, shall not be infringed."

I wondered:

What did the framers of the Constitution intend by the inclusion of the clause, "A well regulated Militia, being necessary to the security of a free State…"?

When that member of Congress says he will vote against the restrictions in Senators Collins' and King's legislation, is that clause part of his thinking?

What do the Maine Senators think about this clause?

Does it mean anything to you today when you read this clause?

The Crisis of Our Age Part I: Brexit*

July 2, 2016

By Mark W. Anderson

The earliest U.S. Presidential campaign that I can remember is the Kennedy/Nixon race of 1960. I think every campaign since then I have heard some pundit describe as "historic." These were supposed to be campaigns that fundamentally changed both how Presidents are elected and the course our nation took. In retrospect, calling these elections historic was hyperbole. If the term is to have any meaning, every big event cannot be historic in the sense that it represents fundamental change.

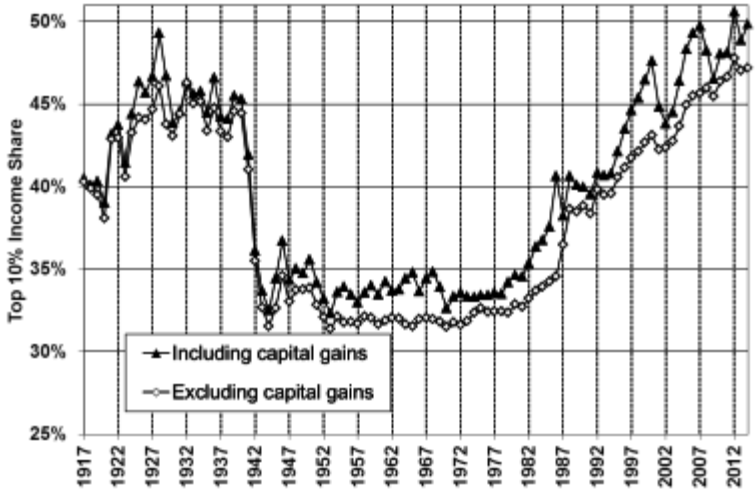
Not surprisingly, some commentators are calling the vote by the British people to leave the European Union (Brexit) historic. It is variously explained as the end of globalization, an uprising of downtrodden middle classes, racism, unbridled populism, or the rebirth of nationalism — a triumph over encroaching transnationalism.

To think about where the Brexit vote fits in the sweep of human history, I turned to one of my favorite books on big history, The Human Web: A Bird's Eye View of Human History by William McNeill and JRR McNeill. The McNeills review the growing interconnectedness of human culture over thousands of years. They explain the growing complexity and integration of human society as largely a matter of human preference. "…most people, most of the time, prefer collective and personal wealth and power to poverty and weakness, even at the cost of subordination to rules and commands issued by distant strangers." (p. 43)

The Brexit vote looks like a rejection of that preference by at least a small majority of British voters. The question from the bird's eye view the McNeills take is whether this rejection is a temporary anomaly or a fundamental shift in modern society deserving of the term historic. Just because humans have opted for growing connectedness to gain greater wealth and security for centuries does not mean that this trend must continue into the future. Fundamental change may be afoot. Or, we may simply return to the previous path of integration and growth after this temporary crisis works itself out.

I will write about this crisis in three parts. In the balance of this blog, I will propose a simple explanation of the root cause of the Brexit vote. This root cause affects not just Britain but has implications across the planet. In Part II next week, I will explain an arcane bit of economic theory that infiltrates our public policy on economic growth and

relates to the root cause of Brexit. Finally in Part III, I will suggest an alternative path forward for modern society in the concept of sustainable de-growth.



Two charts capture the essence of this problem facing us in the richer nations of the world today, including Britain. The chart above I discussed in one of the first blog posts I did for "Stirring the Pot" called Class Warfare. This graph shows the share of income in the U.S. captured by the top 10% of earners, a simple measure of income inequality. Ever since the middle 1970s there has been a dramatic increase in income share going to the wealthiest in our society and in Britain as well. Income and consumption for almost everyone in our society went up over this period, but it went up dramatically more for the richest. (Ironically, income growth was supposed to reduce inequality, a phenomenon called the Kuznets curve.)

There is no clearer picture of this change than in the second graph below, the median income of CEOs of America's biggest companies. That median income is now almost $10 million per year, after adjusting for inflation.

Economists have long known that relative income is more important for a sense of wellbeing than absolute income. This is a key finding of happiness research. So even while the material consumption of most Americans has increased since the 1970s, many feel worse off because their consumption did not grow as much as the wealthiest in our society. Being richer in absolute terms yet poorer in relative terms breeds discontent.

Of course the dissatisfaction is much deeper than just income and wealth inequality. Many feel let down by the promise of post-World War II economic growth. This promise was greater human wellbeing from rising income levels, reliance on free markets to allocate resources (including greater international trade), and greater material consumption. For virtually all Americans these promises were fulfilled. By any measure – housing size, food availability, travel, health care, longevity, clothing, communication ease, or entertainment consumption – the vast majority of Americans have dramatically more than in the 1950s.

So if Brexit is a fundamental shift, an historic event, it is because it reflects a fundamental questioning of the economic logic Western society embraced after World War II. Growing income from free market economies alone may not be a path to human wellbeing. The British may be rejecting the global integration reflected in the European Union, even at the cost of losing growth in income and greater material comforts.

How did we get ourselves into this fix? Is this a product of inherent human nature? Or are there other ways to organize our society that humans might have chosen? In Part II, I will explore the ideas behind the theory of welfare economics to see how the pursuit of economic efficiency leading to greater inequality was justified. Some economists thus provided a rationale for the system that led us to this crisis of our age. Understanding how we got into this circumstance offers a more sustainable path forward.

*With apologies to Pitirim Sorokin, whose 1942 classic was entitled, *The Crisis of Our Age: The Social and Cultural Outlook*

The Crisis of Our Age – Part II: Welfare Economics

July 9, 2016

By Mark W. Anderson

In Part I of this series I explored the idea that the British vote to leave the European Union may be understood as a rejection of the economic foundation of the post-World War II era. The prevailing view has been that economic growth, primary reliance on markets to allocate resources efficiently, free trade, and global integration would make the lives of humans better. The metric that showed this approach was working was rising standards of living measured by average *per capita* money incomes. Politicians and pundits both were fond of saying that "…a rising tide lifts all boats."

Underlying this global economic system were the findings of a branch of neo-classical economic theory called welfare economics. Economists have long been interested in how we should determine that one set of economic rules is better for people than another. The name "welfare economics" reflects the idea that some policies create more human welfare (wellbeing) than others. It turns out that determining welfare changes for society is a non-trivial task. The rules we should adopt for saying one outcome is better than another are not easy once your society has two or more people in it.

Basically there are three types of economic changes that might be improvements for society.

The first was identified by an Italian economist named Vilfredo Pareto. Pareto argued that if there is a change in the economy such that one person was better off and no one else was worse off, that change should be considered an improvement in social welfare. This assumes that a person's welfare is independent of everyone else in society; that is, we are not envious of the one person's gain. With that caveat there is broad agreement that if there is at least one winner and no losers it should be called an improvement. This outcome is termed a Pareto improvement by economists.

The problem is that a lot, if not all, economic changes create benefits for some people and impose costs on others. Growing free trade since the adoption of NAFTA and other trade agreements had this effect in the United States. Many people are able to spend less on consumer goods that used to be made in the U.S. but are now produced more cheaply in other countries. (Peruse your closet and see if you can find on a map all of the countries your clothes were made in.) At the same time, people working in U.S.

manufacturing have lost jobs, painfully obvious in Maine's textile, shoe, and paper industries. Rarely does economic change create only winners.

So the second issue of welfare economics was that when there are both winners and losers, we need a rule to determine whether that change is an improvement in overall welfare. The answer was yes, as long as the winners could compensate the losers for their losses and still have enough winnings left over to be ahead of where they were before the change. Some economists call this a compensated Pareto improvement.

This is problematic, particularly in Western cultures, because we are uncomfortable with taxing some people (the winners in this case) and transferring those dollars to the losers. We end up asking all kinds of questions that show this discomfort. Did the losers perhaps lose because of their own personal failings? Maybe they were just lazy. And why should we punish the winners for being successful? Won't this just make them less entrepreneurial? Aren't the winners job creators? Can we trust the losers to tell us really how much they lost? So compensating losers became politically unpopular and some economists developed theory to help justify not paying compensation.

This is the third key idea in welfare economics embodied in something called the Kaldor-Hicks rule, named for the economists who developed it. If an economic policy makes some people better off and others worse off, the argument goes, we can still call it a welfare gain. We just need to show that the winners **could have** compensated the losers and still have enough left over to be ahead. You don't actually have to pay the compensation for it to count as an improvement in welfare. This became known as a potential Pareto improvement.

This approach fails any reasonable concept of justice yet it is the foundation for the so-called neo-liberal economic approach of the post-World War II period. Economic growth leads to rising average incomes. Even if the distribution of that income becomes increasingly distorted (as we saw in the data in last week's post), people should accept that society's welfare has improved. The losers could have been compensated.

It is no wonder that large swathes of society in Britain, the U.S., and around the world feel poorly served. The very premise of our economic policy is ethically flawed. Many ideas are now competing to replace this neo-liberal ideology of market-driven economic growth unfairly distributed. In Part III next week we will explore one of these alternatives – Sustainable De-growth

Uses Public Dollars to Send Me Campaign Literature

July 12, 2016

By Mark W. Anderson.

I received a letter a few days ago from Representative Bruce Poliquin. The envelope was emblazoned "**Public Document** – Official Business." I was surprised to see this in my mail box, because I had not remembered sending Mr. Poliquin an inquiry or a comment on his actions in the U.S. House of Representatives.

I found inside a letter with an *ad hominem* attack on the Internal Revenue Service and information to update me "…on the work I am doing to hold the Internal Revenue Service (IRS) more accountable…" I could be wrong, but my sense is that any reasonable citizen, whatever they may feel about the IRS, would read this letter as campaign literature.

The data on Congressional elections are clear. Incumbency creates a significant advantage at election time. Re-election of the incumbent is the norm. Incumbents have high name recognition and many ably use their staffs to provide service for constituents experiencing problems with the Federal government. I get that.

My question is, why are Members of Congress allowed to use tax payers' dollars to produce, print, and mail campaign literature to me in the guise of a public document, official business?

There is much business I would like to see the U.S. Congress complete. The last I checked, the majority of agency appropriations bills for the upcoming fiscal year are nowhere near completion. The leadership of the House of Representatives refuses to even vote on keeping firearms out of the hands of those on the so-called "no fly list." The Senate leadership refuses to hold hearings on a nominee to fill a vacancy on the Supreme Court, extending gridlock from Congress to the high court.

Yet Congress continues to remain at work only three days most weeks and now they enjoy a long summer recess. Reportedly this allows members more time to raise funds for their next election. Perhaps they have not learned the lesson of Representative Poliquin – get taxpayers to pay for sending me what looks like campaign literature.

The Crisis of Our Age – Part III: Sustainable Degrowth

July 17, 2016

By Mark W. Anderson

By the middle of the 20th Century the world had endured two world wars and a global economic depression unprecedented since the beginning of the Industrial Revolution. With the defeat of various forms of Fascism in World War II, Soviet and Chinese forms of Communism vied with Democratic Market Capitalism to dominate the social and economic structure of the world system. Arthur Schlesinger Jr. argued that in the post-war era the economic system that came to dominate was a reflection of the vision of Franklin Roosevelt.

Central to that vision as it evolved in the 1950s was the importance of growth to improve the human prospect. And for this growth to occur the world would embrace free markets, free trade, greater mobility, and the spread of industrial capitalism. The idea was so alluring that it caused the end of the Soviet experiment and the transformation of China from an authoritarian communist state to an authoritarian capitalist state with growth as its central mission. The world was awash in growth – growth in human numbers and growth in the consumption of goods and services. The world's population of humans tripled from 1950 to today, now nearly 7.5 billion share the Earth. The world's Gross Domestic Product per capita, one measure of economic activity, has more than tripled since 1950. Many more people came to have much more income.

The logic of the value of this growth was simple. Higher incomes would generate more consumption leading to greater happiness. Growth was good. As I mentioned in Part I and Part II of this series, the benefit of this growth was promoted in simple terms — a rising tide lifts all boats.

There were dark sides to this growth as well. It increased the inequality of human existence on the planet to unprecedented levels. Many boats were lifted a little while even bigger new boats were built and lifted to higher water levels. To feed, clothe, and house all these new people at higher standards of living put unprecedented pressure on the natural resources of the planet. And as we see increasingly around the globe today, growth in consumption, at least beyond some basic level, has not delivered the widespread happiness that it was supposed to.

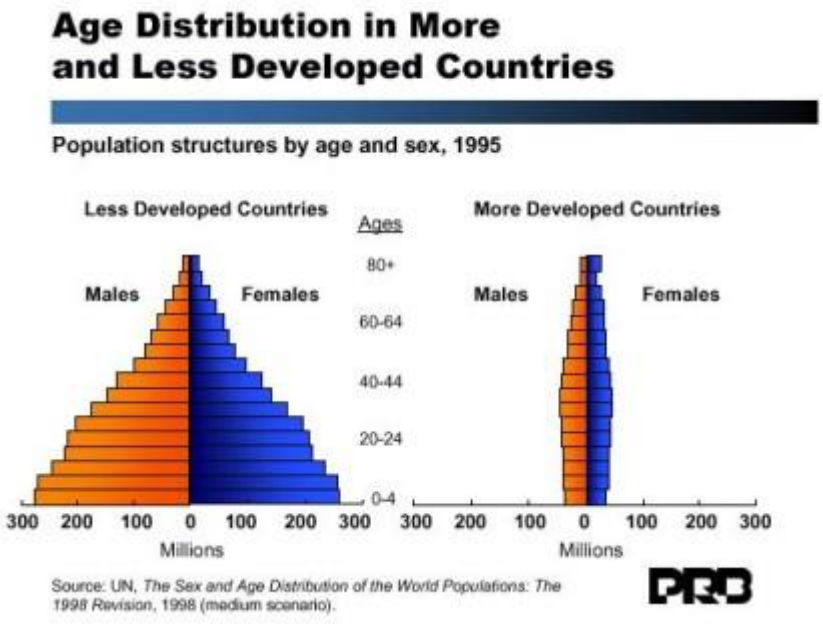
There are alternatives for organizing a free and open society that are not reliant on simple growth as a foundation. One such alternative is sustainable de-growth. The premise of degrowth is that there is more to human happiness than consumption of ever increasing amounts of goods and services. Furthermore, the idea recognizes that there are biophysical limits to the resources humans can extract from the planet and to the ability of the planet to absorb the wastes of our consumption. Degrowth is a vision of society with more happiness and fewer demands on the natural world.

Of course this idea is not new to economics. Economists all the way back to classical economists like John Stuart Mill wrote about the concept of the steady state economy. The degrowth movement is a modern version of this that recognizes happiness, once basic physical needs are met, comes from purposeful relationships with other humans and the natural world, from meaningful work activities, security, and a sense of purpose in life. The degrowth paradigm is not fully developed, there is much work to be done. But its rudiments are best understood in contrast to the dominate growth paradigm of the past seventy years.

Where growth economics assumes that wellbeing is a function of income and the things it will buy (more is preferred to less), degrowth sees happiness as a more nuanced way. Once basic food, clothing, shelter, health care, the like are satisfied, many of the determinants of happiness have nothing to do with more consumption.

Growth emphasizes efficiency in the use of resources over fairness in the distribution of goods and services made from those resources. Degrowth replaces efficiency as the primary economic criterion with the idea of justice as fairness, as American philosopher John Rawls put it.

In growth economics the products of nature are considered commodities to be priced and traded in markets to produce goods and services for consumers. In degrowth economics humans get more from nature than just production of stuff, and nature itself is intrinsically valuable.



Growth requires a population with larger cohorts of younger people (demographers say that population pyramids in this case have a broader base, see the figure here). More younger people means more workers. Degrowth recognizes that the human population is limited and that therefore the demographic trends of the past 250 years cannot continue into the future. Therefore we need to learn how to structure economies where there is balance between young, middle-age, and older citizens.

Growth economics demands as much free trade as possible and markets to allocate the products of that trade efficiently. Degrowth emphasizes that trade can be both beneficial and detrimental to the people involved in the process. Whether trade should be freer or more restricted depends on multiple factors, so there is no blanket rule that we should always favor more free trade.

In the growth economy, work is primarily a means of earning income to consume more goods and services. People put up with long commutes and activities that pound the life out of them in return for ever higher incomes. In the degrowth paradigm, work is a means of earning the resources to meet the basic needs of life, a contribution to the wellbeing of the community, and a source of personal satisfaction with a job well done.

Growth requires mobility. If you lose your job due to growth, the rational response is to move to where markets tell you another job is available. Degrowth emphasizes the value of stability in communities that is lost in the churning movement of the growth economy. Again, efficiency is not the only criterion that matters for wellbeing.

And so in the growth economy your home is an economic asset. It is good when its market value increases and bad when its value declines because you never know when you are going to have to move to get a new job. In the degrowth economy your home is where you build a life as part of a community of people with shared interests. Its fundamental value is nonmonetary so it matters less or even not at all if its market value increases or decreases.

Growth economics requires technological change and innovation for their own sake. Degrowth economics treats newness as neither a benefit nor a detriment. Degrowth does not require you to have a new cell phone every year for you to be happy. As a corollary degrowth rewards the repair and re-use of things. The old can be as good as the new if cared for.

The degrowth paradigm is not yet fully developed, but it is a work in progress reported in academic journals like Ecological Economics. Getting from the current growth economy to sustainable degrowth will not be a trivial exercise. There are many problems in health care, taxation, banking and investment, government programs, and international relations. But what it does is provide a vision of our economy where the products of our efforts and creativity are shared fairly among the people of the world and where nature that is at the foundation of our wellbeing is respected.

Eminent Domain, Just Compensation, and a Raw Deal for Homeowners

July 24, 2016

By Mark W. Anderson

When the State of Maine builds the I 395-Route 9 connector road, reportedly eight homes will be "taken" under eminent domain powers of the state. I don't know any of these homeowners who will be stripped of their homes, but I think you and I are complicit in the pain and suffering they will experience.

Eminent domain is an exercise of the police powers, the right and obligation of the state under Anglo-Saxon common law to protect the public health, safety, and general welfare. Under the 10th Amendment to the U.S. Constitution these powers are reserved to the States. The 5th Amendment to the Constitution requires that government pay just compensation when private property is taken for public use under the eminent domain powers.

Historically the courts have applied faulty economic thinking when determining what is just compensation. This is where you and I, as part of the public which will be served by the taking of these homes, should feel some guilt. We will benefit from safer traffic in the Brewer, Eddington, Holden region and the whole State of Maine will benefit from easier transit to and from the Maritimes. Yet we will take these homes on the cheap. We are unwilling to pay the higher taxes it takes to pay homeowners a fair compensation for their losses.

Since the Constitution requires just compensation for taking someone's property for the public good, the obvious question is, how much do we pay someone when we take their homes? The thinking from economics traditionally was that the market price of a home is its value, therefore payment of that market price would be just compensation. This is a further example of the slavish reliance on markets to determine value in our culture, which I have written about before in this blog.

There are two reasons from modern economic theory to suggest that market price is not just compensation when we take a home.

First, is the assumption we make about markets that they are made up of willing buyers and willing sellers. If this assumption is violated there has been a market failure and the resulting market prices are distorted. By definition, in a takings case like the I 395 connector, the homeowners are not willing sellers. If they had been then they would have sold their properties at market prices. So fundamentally, market price in this case is a flawed measure of value and is thus not a a basis for determining just compensation.

Second, advances in behavioral economics have shown that there is in modern humans a status quo bias which leads to something called loss aversion. This phenomenon has been shown in multiple experiments. People pay less to buy a good they do not own than they would accept to sell that same good if they already own it. In economic jargon, you are willing to sell your home at a higher price than you would offer to buy the same home. If you have been living in a home (the status quo) there are values to you alone that the market cannot reflect. We should not neglect this fundamental understanding of human behavior when determining just compensation for a taking by the state. Using the market price ignores this status quo effect.

So here is what we should expect from this process, because we are "the state" that is taking these properties to serve the public health, safety, and general welfare:

- When people's homes are to be taken, we should expect that it is for a compelling good that serves the public, not just some special interest.
- We should place ourselves in the shoes of those whose homes are being taken and imagine how we would like to be treated if our homes were being taken (this is consistent with John Rawls' of justice as fairness).
- If homes are to be taken to serve the public interest, compensation should be paid that is more than market value. If we are going to ask a few individuals to assume the extra burden of vacating their homes to serve our collective interests, we should be willing to pay extra to reflect the extraordinary costs they are being asked to assume. Merely paying market value is not just compensation and it is based on outdated economic theory.
- And most importantly, we should be willing to pay higher taxes for safe and efficient infrastructure that is built without unjustly asking a small segment of society to bear undue costs because of the accident of their location. We should be willing to bear the costs of the improvements we get, including a truly just compensation for property that is taken.

What the Wessie Phenomenon Says About Our Attitudes Toward Nature

August 21, 2016

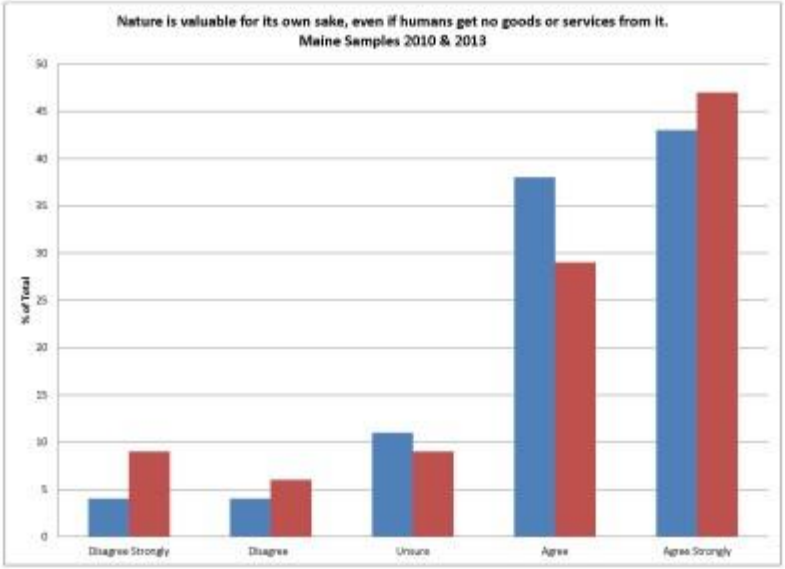
By Mark W. Anderson

One of the fun stories from Maine this year to help take our minds off natural disasters, Presidential elections, and ill-behaved Olympic athletes is the tale of Wessie. In case you have been living under a rock, Wessie is the affectionate name given to the large snake reported in the Presumpscot River in Westbrook. Reported sightings and now a large snake skin suggest that this is a tropical snake, perhaps someone's pet released into the wild once it no longer met the needs of its owner. TV journalists have been dispatched to the scene and Wessie provides much amusement for the local newscast amidst the dreadful stories of the day.

What is missed is the meaning of the very existence of Wessie in our culture, assuming that this is not some cleverly managed hoax. The very fact that someone may have been keeping this exotic snake as a pet before releasing it is a sad commentary on our general attitudes toward nature and toward wild animals specifically. What this says is that nature is worthwhile to us for its instrumental value and little more.

This is seen in the keeping of exotic animals as pets. Not only snakes but also parrots, ferrets, and even big cats (not *felis catus*), to name just a few. We kidnap these creatures from their natural lives or force them to reproduce in captive (aptly named) breeding programs. We then literally cage the animals for our entertainment as pets. Zoos, marine mammal exhibits, and wildlife parks do the same on a larger scale, though usually with some lame rationale that the facilities are conducting science and fostering conservation. The animals are caged and presented for our pleasures nonetheless.

This instrumental value of wildlife is seen also in our management of wild species for human use. So, for example, in Maine we "manage" coyote populations as part of our deer management program. That is to say, we allow virtually unlimited hunting of coyotes because they sometimes kill a species, deer, that we prefer be available for us to kill instead.



A lot of Mainers understand that nature is more than just stuff for our consumption and amusement. It is intrinsically valuable, not needing to satisfy human wants and needs to be worthwhile. A question asked on multiple surveys done in the past shows this attitude and how strong it is. Nature is valuable for its own sake.

A little humility for humans is called for. Everything in nature does not exist just for our use and pleasure. Parrots and tropical snakes deserve to live the lives of parrots and tropical snakes in the wild, not caged in our homes and apartments for our entertainment. Dolphins and whales belong in the oceans rather than as part of *faux* conservation organizations that in reality are circus acts for our entertainment. And coyotes and bobcats should be able to live at least in some places without being targets for human gratification, pawns in some larger management program to maximize human values.

Must Economic Growth Continue?

September 19, 2016
By Mark W. Anderson

I recently suggested that one solution to the crisis of our age is a shift in economic paradigms to one called Sustainable De-growth. To understand fully the implications of de-growth, we need to see where the phenomenon of growth comes from. A new book by Swiss economic historian Matthias Schmelzer provides deep insights into the roots and development of the growth paradigm since World War II. (Schmelzer, *The Hegemony of Growth: The OECD and the making of the Economic Growth Paradigm*, Cambridge University Press, 2016.) Schemlzer expands on the earlier book by R.M. Collins – *More: The Politics of Economic Growth in Postwar America* – by showing through the lens of the Organization of Economic Cooperation and Development (OECD) how the growth paradigm became a central tenet of Western societies.

Economic growth, as measured by increase in Gross National Product (GNP), and its later refinement Gross Domestic Product (GDP), was supposed to do several things. This promise of growth was made for the U.S. starting with the Truman Administration and then spread to Europe as a legacy of the structures established to administer the Marshall Plan for post-war reconstruction. Growth was embraced because it helped politicians avoid having to worry about inequality. In the classic expression of the time, "a rising tide lifts all boats." Growth was to provide tax revenues first for the programs of the New Frontier in the Kennedy Administration and then the Great Society of the Johnson years. Growth was a tangible means to show the poor countries of the world (labelled first "less developed" and then "developing" in the parlance of the growth paradigm) the superiority of Western liberal capitalism. Growth was a central element of the Cold War. Schmelzer shows how the growth paradigm became self-perpetuating, almost like an addiction. If a little growth did not solve all problems, then a little more would.

But as Schmelzer points out, "The growth paradigm is ultimately unstable and self-contradictory since the expectation it raises of continually increasing levels of material production run up to the ecological limits of a finite planet." In addition, growth in GDP (so-called quantitative growth) failed to deliver in its promises to the people. The growth paradigm led to growing inequality, a dissatisfaction with public services it was supposed to enhance, and growing alienation with the false promises of material consumption as a source of wellbeing.

Schmelzer's history makes the story of the OECD and its role in the development of the growth paradigm a fascinating read. With the exception of a couple of bizarre statements about Henry Kissinger in the Epilogue, it is thoroughly researched. It is an important contribution to understanding how we got to the current state of the global economy and how we might proceed in a more sustainable way.

If you are interested in the alternative to the growth paradigm, I will present a public talk on de-growth at UMaine next week:

SUSTAINABLE DEGROWTH: A PARADIGM TO ADDRESS CLIMATE CHANGE, INEQUALITY, AND ALIENATION — Thursday, September 29 at 12:30 p.m., Bangor Room, Memorial Union, The University of Maine

Donald Trump's Tax Secrets: What if Everyone's Tax Records Were Public?

October 2, 2016

By Mark W. Anderson

Presidential candidate Donald Trump continues to refuse releasing any of his income tax records. Pundits speculate about the reasons behind this secrecy. Perhaps he has not been as successful a business operator as he claims. Maybe he has not been as generous in his support of causes embraced in his campaign, like veteran's groups, as he claims. Or maybe, as the New York Times suggests, he has paid little or no income taxes for years.

What does it say about someone who has enjoyed so deeply the fruits of American life that he did not contribute to the costs of providing for the common good? Is that fair?

Perhaps there is even a larger question we should be asking ourselves here. Why do we only ask that some politicians release their income tax records for public scrutiny? What if everyone's tax records were public?

At first glance this idea sounds like a preposterous invasion of privacy. Yet tax transparency has been tried in at least three countries in Northern Europe, as reported by the Economist magazine. Norway, Sweden, and Finland make income tax records publicly available. Norway takes transparency to the next step by also making public those who look at someone else's tax information.

The benefits of transparency are twofold. First, it makes people think twice about claiming dodgy deductions and exemptions. Data from Scandinavia suggest that tax receipts went up with greater transparency. Second, tax transparency reinforces the idea that we are not just a bunch of individuals out to maximize our personal benefits. We are also a society with common needs and aspirations that can only be realized if we work together and share in the burdens of creating collective wellbeing. Tax transparency lets us see who is and is not contributing to the common good.

Ironically, tax transparency has a long history in Maine, just not for income taxes. In Maine towns we have long made public the value of people's property and the tax obligation that property value generates. We even print in the town report those who

have failed to pay their property taxes. In the 21st Century this extends to making property tax obligations available on the web. My neighbors can look up my property taxes any time they wish at my town's web site. This is perhaps how people discovered that Congressman Poliquin was claiming a Tree Growth tax exemption on his oceanfront property that did not appear to be in any commercial timber management regime.

So let's get beyond Trump's secrecy and think about how we might make everyone's income taxes public in a safe and reasonable way. It could contribute to a better understanding that we are all in this together.

Actually, A National Energy Tax Would Be Good for Maine

October 13, 2016

By Mark W. Anderson

In this season of interminable political ads, one Bruce Poliquin TV ad berates his opponent Emily Cain for supporting a "national energy tax." The ad says such a tax would be bad for Maine. I do not know whether Emily Cain supports a national energy tax or not, but I do. Contrary to the Poliquin position, I know that, on balance, such a tax would be good for Maine people.

It is always politically expedient to oppose tax increases. No one wants to pay higher taxes of any type, but a revenue-neutral national energy tax on fossil fuels will create three important benefits for Maine.

First, these taxes can provide a stable funding base for highway maintenance and construction. We all know that "Maine Roads Stink." Taxes on motor fuels are essentially user fees that ask those people who use public transportation infrastructure to pay the costs. Gasoline taxes are perfectly tuned to charge people for vehicle weight and miles driven, the two most important factors in highway wear and tear. The Maine way is to pay for what you use as you use it. We should not have to borrow money and pay the extra borrowing costs to maintain our roads and bridges. And there is no time like the present to raise gas taxes because of the low prices of gasoline.

Second, energy taxes are a means of signaling to consumers the costs of using energy that fall on other people, what economists call external costs. This I detailed in an earlier blog post, Do You Have a Problem With Gas? By raising energy costs we ask people to adjust their behaviors to reflect not just the costs to them of energy use, but also the costs they are imposing on others. The costs of poor air quality and climate change are most important here. Maine's climate future would be better served if everyone in the U.S. used fewer fossil fuels to energize their lives. There is no more fair or efficient means of doing this than a tax on natural gas, petroleum, and coal. This approach is far superior to tax breaks and subsidies for so-called renewable energy.

Third, a revenue neutral tax on fossil fuels is one where another tax is reduced such that the total revenue collected does not increase. The Brookings Institution has suggested a "Green Employment Tax Swap" where the increased energy taxes allow a reduction in the payroll tax, one of the most regressive taxes in the U.S. If such a swap were in place to eliminate or reduce employer and employee payroll taxes on the first $5000 to $10,000 dollars of earning each year, it would both encourage people to work and firms to hire. Perhaps more importantly, it would make the funding of Social Security and Medicare much fairer than it is now. (Additional fairness would come from eliminating the exemption of payroll taxes on earnings over $118,500.) All of these would make a revenue neutral tax on fossil fuels good for Maine people.

Mr. Poliquin, take note. It is wrong to use the fear of higher taxes without admitting the benefits these higher taxes would generate. The higher costs of energy would be more than offset by multiple benefits to Maine people.

So, the Election Was Rigged After All

November 20, 2016

By Mark W. Anderson

The President-elect was fond of claiming before election day that the system was rigged. Pundits wrote this off as a preemptory rationalization of his impending loss, but perhaps he was just prescient. Maybe he understood better than the rest of us that the choice of American Presidents by the electoral college is inherently undemocratic and that he would exploit that rigged system. In the end the loser would win and the winner would lose.

Official tallies are not ready yet, but it appears that the President-elect got about 1.25 million fewer votes than his opponent. That is more votes than the total number of voters for President in Maine and Vermont combined. Essentially the system disenfranchised the plurality of voters and gave extra weight to those in the minority.

Apologists for the outcome of the election have tried to suggest that there is some noble principle in the electoral college system for choosing Presidents. The system somehow reflects the value to the Republic of State sovereignty and the wisdom of the framers of the Constitution. This is a naïve reading of the history of the Constitutional Convention. The electoral college system was raw political compromise. Larger northern states' delegates favored direct election of the executive while smaller, mostly southern states favored election by the Senate, which would have made the process even more undemocratic. The compromise was a simple "back-room deal," the kind with which our President-elect claims to be so well acquainted.

Collier and Collier in their 1986 history of the convention of 1787 say of the deal, "We must understand, then, that the American electoral college system of choosing a president is a Rube Goldberg machine. It was jerry-rigged out of odds and ends of parliamentary junk pressed together by contending interests. And the question that inevitably comes up is whether it ought to be abandoned."

We have now had five elections where the President was chosen by the electoral college after gaining less support among the people than his opponent. Three of these were in the 19th Century and two in the past 16 years. Never before have over a million voters had their preferences so ignored.

The real problem with this outcome is what it says to people about participating in our democracy. It would be natural to ask now, why should I vote if my vote will not

count? How can we expect the people to accept the outcome of Presidential elections if the majority is ignored because of a 229 year old political compromise? Where is the legitimacy of our democracy if the loser wins and the winner loses?

Collier, J. L., & Collier, C. (1987). *Decision in Philadelphia: The Constitutional Convention of 1787*. New York: Random House.

Update December 12 — I couldn't say it any better than Paul Krugman in the Times

Parsley From a Maine Garden in December – It's Not Worth It

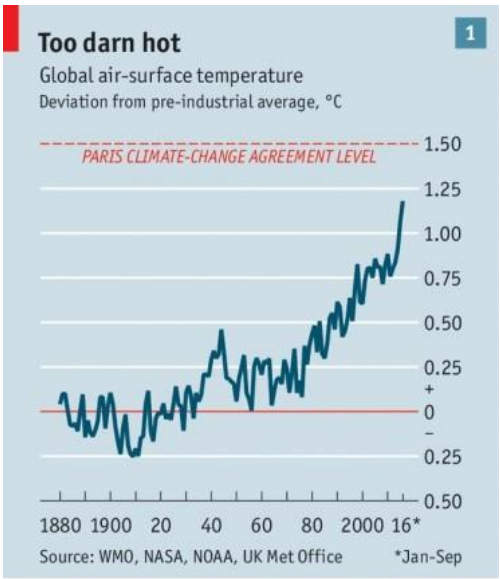
December 1, 2016

By Mark W. Anderson

Our gardens are less ambitious undertakings than when we were younger. We still have some raised beds with sun gold tomatoes, carrots, radishes, and several different herbs. The Brewer farmer's market now makes up the bulk of our local summer and fall vegetables.

This year the raised beds got put to bed mostly in October; but one Italian flat-leafed parsley resisted uprooting. Every time I thought to get the fork out and move the plant to the compost bin it protested and offered another day of fresh herb for tomorrow's meals. The plant is still there in December, producing flavors for our table. And it has survived without any night time cover or special mulching. Parsley is a cold-hardy plant, but this is exceptional.

You know where this is going. 2016 is on schedule to be the hottest year on record, as can be seen in these temperature anomaly data reported in the The Economist newspaper:



Economist.com

We can see the effect of these rising global temperatures in my parsley plant. Anyone my age who gardens in Maine can assure you that the parsley should not have survived this long.

The President-elect is rumored to be planning the shutdown of the programs in NASA where climate science is done. The argument is that climate science has become "politicized" and that ending Federal funding for the science is a legitimate political action of a new President.

Of course there is nothing political about rising sea levels, increasing frequency of 100-year weather events, Arctic sea ice declines, melting permafrost in the Arctic, and expanding ranges of the ticks that spread Lyme disease in Maine.

These and numerous other biophysical changes in the processes of our home planet are realities that we are going to need to deal with, whether or not you believe in their human origins. It is not just the climate that is changing. Rather the changes are seen in multiple ways across the planet. Scientists are now talking about the diverse phenomena of global change. Some geologists now think we have slipped into a new epoch, the Anthropocene, reflecting the scientific consensus that humans are responsible for a significant portion of the change we are seeing in global biophysical systems.

We can celebrate cruise ships that bring wealthy tourists to Maine ports after Northwest Passage voyages made possible by global change. And I can relish parsley harvested out my back door in December. But these are not worth the risks of global changes that we are creating.

If we care about the quality of life we are leaving for humans of the next generation, we will make sure that Maine politicians avoid the rhetoric of "politicized science" and continue to support good science and creative public policies to address changes in the planet wrought by humans.

When Dollars Meet the Grizzly Bear Spirit

December 10, 2016

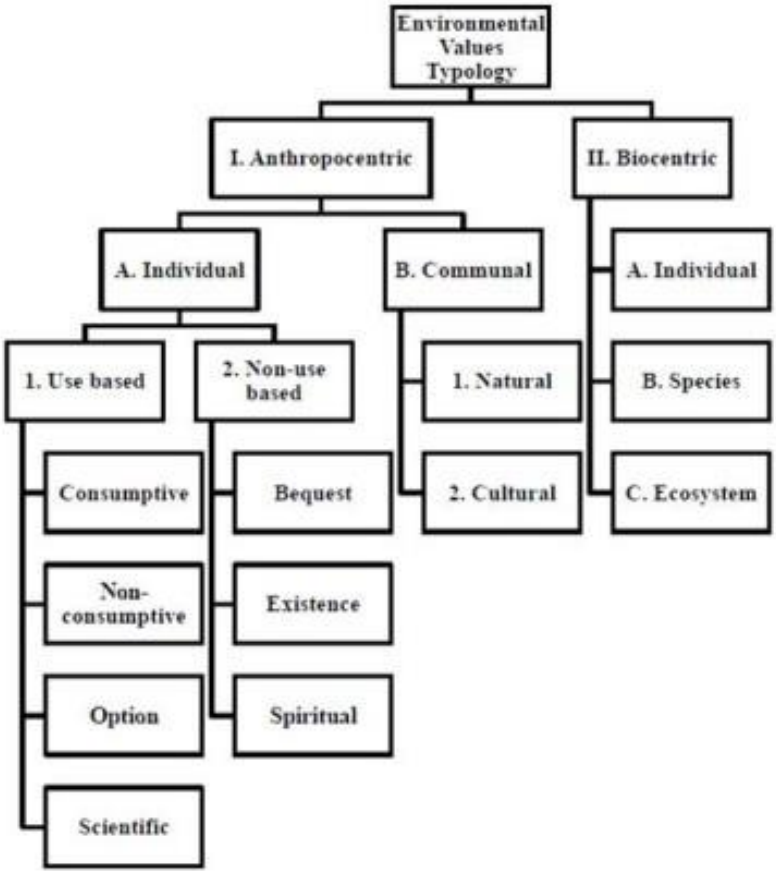
By Mark W. Anderson

When most people hear the word economics they think of money. I remember visiting a local Maine historical society and the excitement the caretaker felt when he learned that I was an economist. He immediately assumed that I would want to see their collection of 19th Century currency in circulation in Maine. I did not.

The idea permeates the environmental community as well. In recent years environmentalists have embraced a concept known as ecosystem service value to justify their preferred environmental policies. The idea is simple. Parts of nature – ecosystems – do things that humans value. So large areas of the Catskill Mountains are preserved as natural habitat and the water supply for New York City is purified. The "value" of the land in conservation can be calculated in money terms. In this thinking, the conservation is worth what it would have cost to purify water for the city using engineered treatment plants.

Many environmentalists had tired trying to justify their policy goals in the face of economic arguments about jobs and incomes. The logic of ecosystem valuation was, if you can't beat 'em then join 'em. There is a vast and growing academic literature on the pitfalls of this approach. The fundamental problem is that it assumes that the only values that matters are those that can be expressed in money terms. The approach treats nature as a commodity that exists only for satisfying human wants and needs. One of the first authors to show the problems created by this commodification of nature was historian William Cronon in his book Changes in the Land, which I previously talked about in this blog.

This approach also shows a naïve understanding of economics, which deals with much more than just the money value of things. I have written with my colleague Mario Teisl about the many ways that economists think about values, particularly those associated with the environment. This figure shows the breadth of different values types that humans express.



The problem with ecosystem valuation for determining how much the conservation of land in the Catskills is worth, for example, is that it just focuses on a small piece of this picture – human-centered, use-based values.

Without going into all the different types of values reflected in this chart, you can see that nature or the environment has a wide array of ways it might be valuable. A good specific example is the pending Canadian court battle between developers of a ski area and Ktunaxa First Nation. The developers know what the mountain is worth; its value is measured in the money they can make creating a deep powder ski resort to attract wealthy North American skiers. For the First Nation members the mountain is home to the Grizzly Bear Spirit, a central part of their belief system. Obviously the values reflected in the spirit are not measurable in dollar terms.

In addition to the development and spiritual values of this mountain, there are other values we can ascribe to it that can be seen in the figure above. The mountain is home to wildlife, it is a potential bequest to future generations as an undeveloped wilderness, and a source of wellbeing to some people just by existing, whether or not they ever plan to ski or worship there.

When we make decisions about the environment only in dollar terms, doing what economists call benefit/cost analysis, policy decisions are shortsighted. Decisions made this way leave out important sources of value, by definition. Economics does not offer any easy way to make decisions like whether a mountain should be a ski area or a central part of belief systems. But the fundamental lesson here is that we need to start talking about our values when we make policy decisions.

Last year's referendum in Maine on bear hunting was a good example where we did not do this. During the debate I heard one wildlife biologist say, "We can talk about our values until we are blue in the face. We won't get anywhere." I say, without talking about our values we will get somewhere, but it is likely to be the wrong place. If we confront our differences in values with respect, we have a chance to get to the right place.

Wild Lands: The Missing Piece in Maine's Land Conservation Mosaic

December 21, 2016

By Mark W. Anderson

Mainers are proud of our forest heritage and we often claim to be the "most forested" state in the Union. Those forest lands are best thought of as a mosaic of uses and ownership types.

We have industrial forest lands owned by corporations, families, and various investment schemes like Real Estate Investment Trusts. Some lands are in so-called kingdom lots, large parcels owned by wealthy individuals who use them as private play grounds. There are lands in Federal ownership like Acadia National Park and a small portion of the White Mountain National Forest located in Western Maine. There are lands owned by the State of Maine, most notably those forests managed as Public Reserve Lands by the Bureau of Parks and Lands and the crown jewel of State ownership, Baxter State Park. And then there is a vast array of "conservation lands" owned by local land trusts and by state and national conservation organizations like Nature Conservancy, Appalachian Mountain Club, and the Forest Society of Maine. Maine is a leader in the national land trust movement. Increasingly ownership of forest lands in Maine is split between owners. Many acres of the timber land in Maine have management rights owned by families or corporations with "conservation" easements held by environmental groups. These easements limit in various ways what uses are allowed on the lands.

This mosaic of ownership types means that there are many different patterns of use. Much of the land is in multiple use management (see my blog The Myth of Pinchot) with a mix of timber production and recreation allowed, constrained by some conservation limits. Many of the public reserve lots owned by the State are managed in this way. Managed is a key word here. In almost every case, forest lands are managed to meet some set of human needs, depending on the mission and history of the ownership.

One large land trust currently manages its conservation lands with a goal to improve forest health. The result is a long-term timber harvest plan designed to make the lands healthier. Of course, forest health in this case is a human concept. Healthy forests are those that meet human ideas of what forests should look like rather than natural processes of growth and decay the forest would experience without our intervention.

This example shows the one use type that is clearly missing in Maine's forest mosaic – true wild lands. The idea of wild lands or wilderness is that nature, if given a chance, can function very well without our management. The ethic here is that nature does not exist solely to meet human needs. Our domination of nature need not be so complete that every aspect of nature is directed by and for us. Forests are healthy in their own way when we do not manage them.

Some in the environmental community have given up on the idea of nature as something distinct from humanity. For example, the former chief scientist for the Nature Conservancy, a group once dedicated to setting aside parts of nature to exist without human influence, now argues that nature has been so changed by humans that it is "domesticated." So our only hope is to manage nature for our ends. In the words of writer Bill McKibben we have seen "the end of nature."

While we should celebrate the many land conservation successes in Maine, we should also recognize that we too have accepted this narrow view that nature, even in conservation ownership, is to be managed to meet human ends. So we too are missing the last piece of the land mosaic, wild lands. The alternative is to dedicate some lands to rewilding, the object of a growing movement around the world. Rewilding is a simple idea. You buy a piece of land and then place an easement on it that expunges all the human uses typically allowed for forest lands – timber harvest, hydro power production, all types of recreation, wind turbines, housing, roads, and scientific research. In its most radical version, humans stay out of wild lands because the land there is not for us to exploit, to recreate in, or even to study.

Rewilding is an expression of human humility. It says that we are not always wise enough to know what should be done with the land and that the land exists for more than just us. Other species have a right, to put it in human terms, to places just for them. Humans have appropriated the vast majority of the planet for our species, rewilding means leaving a little for all the other species.

One of the most eloquent expressions of the ethic behind rewilding is Canadian writer J.B. MacKinnon's The Once and Future World: Nature As It Was, As It Is, As It Could Be. Of course MacKinnon's perspective reflects a long line of thinking in this country, tracing back through Rachel Carson, Aldo Leopold, John Muir, to Henry David Thorough and George Perkins Marsh in the 19th Century.

Let's put this in the current Maine context. It was laudable for the Quimby family to give land and money to the Federal Government to establish the Katahdin Woods and Waters National Monument. That will be an economic boon to the Katahdin region in the decades to come. Its use will be a nice complement to the industrial forest lands in the region and to Baxter State Park. But this is not enough.

We will need the vision and courage in the future to find large parcels of land in Maine to set aside and walk away from, so that nature decides how they function. Only then will we complete the mosaic of Maine's forest landscape. Rewilding is the right and good thing to do.

The Wilderness Ethic

January 16, 2017

By Mark W. Anderson

In many faith communities it is common for adherents to sacrifice. The Shakers embraced celibacy, though some might find that a flawed "business plan" for the endurance of the sect. Catholics for years avoided eating meat on Fridays, a practice good for fish mongers. Likewise, many Jews and Muslims forsake pork in their diets. Dietary restrictions, fasting, and other faith-based sacrifices are usually not instrumental behaviors, they are not to lose weight or improve cardiovascular health. Rather they are expressions of humility or self-control or even a form of prayer.

In a similar way, the designation of wilderness, which I discussed in my last blog, is not a human-centered action. Rather, it is an expression of self-control by the human species. It is an assertion that nature does not exist solely for the satisfaction of human wants or needs. There is something more to the universe than human wellbeing and by designating land for wilderness we are expressing humility for our species.

This is in stark contrast to the growing trend in the environmental community, particularly that part engaged in land conservation. Conservation is the key word here. With the growth of secular society, environmentalism has become increasingly anthropocentric. We conserve land or other aspects of nature because it is good for us as a species. Conservation is an ethic firmly rooted in utilitarianism, the idea that we should act to create the greatest good for the greatest number of humans.

The emphasis in the last few decades on ecosystem service valuation is a good example of this trend toward the dominance of conservation. In the 1980s environmentalists were criticized for adversely affecting economic growth. To fight this critique, the primary impulse was to find economic reasons for protecting the environment; the most important reason advanced was the centrality of economic services that a quality environment provides for humans. The hope was that this economic argument would be a more practical means for winning environmental protection battles than more fundamental ethical arguments.

This is an old debate within the environmental community, going back at least to the fight between John Muir and Gifford Pinchot. Pinchot was the utilitarian, considered the father of the modern conservation movement. Conservation meant protecting the environment because it provided wellbeing for humans. Muir's perspective was larger, I might say deeper. Reflecting his upbringing in a strict Calvinist household, Muir saw nature as something with intrinsic value. So for him, wilderness was worthwhile for its

own sake. (One of the best accounts of this debate is in Roderick Nash's superb history, Wilderness and the American Dream.)

The problem with the conservation ethic is that it transforms nature from something intrinsically valuable into a commodity whose value is only expressed in dollar terms. Decisions about the environment are made using the ethically flawed technique of benefit-cost analysis. Recent critiques of this approach call it turning the environment into a commodity fetish.

Leaving part of the natural world alone, creating wilderness areas, is a very different approach. It is an act of humility and self-control. It asserts that nature does not need us to be valuable, even while we need it to survive. By creating wilderness and walking away we are expressing our fundamental role in the universe, our part of something larger. We do not need to hunt, fish, watch birds, hike, study wildlife, manage, or interact with the natural world in any way for it to be valuable.

Nature existed before we arrived on the scene and will continue after we depart, whether that is with a bang or a whimper.

Was the Internet a Good Idea?

January 21, 2017

By Mark W. Anderson

I remember clearly my first inkling of something new called the world wide web. I had recently started using email and two colleagues brought me a U.S. Department of Agriculture publication describing a new information system. One would be able to use a computer and software that would "crawl" about looking for information stored on other computers. The idea of a "search engine" seemed all too incredible. While I had been using computers in a work environment since 1974 and my graduate research had entailed three boxes full of IBM keypunch cards, the prospect of "web searches" was unbelievable.

One remarkable aspect of this technology was how little we questioned it, both at the time and since. The underlying technology for the internet was developed by the Department of Defense and promoted by the rest of the Federal government. The unquestioning acceptance of a new technology was an aberration at the time.

In the 1960s and 1970s society had developed a healthy skepticism of new technologies. Rachel Carson's book *Silent Spring* was just one of many efforts to consider carefully the social, economic, and environmental implications of adopting new technologies. The formal version of technology skepticism was a new technique call technology assessment. The idea of technology assessment was that all technologies had positive and negative consequences for society. These consequences needed to be evaluated before the technology was adopted. Innovation was not always a good thing for society. The importance of this technique was marked by the creation of an Office of Technology Assessment (OTA) for the U.S. Congress in 1972. The office was to provide Congress with unbiased analyses of new technologies so that public policy could be applied to enhance benefits and mitigate adverse effects. As in the cases of the supersonic transport plane (SST) and the anti-ballistic missile (ABM) programs, Congress might even choose not to pursue some new technologies.

The OTA was eliminated by Congress in 1995 as part of Newt Gingrich's Contract with America. Questioning new technology as a matter of public policy had become passé; the free market would decide what technology should be developed and how it should grow. Of course the idea of the "free market" entailed the freedom of firms to lobby governments to support and encourage the technologies of those particular firms, which they commonly did. Economists call this rent seeking behavior.

So there was no formal technology assessment of the internet. It developed in the dog-eat-dog world of Silicon Valley and the other hot spots of technology innovation. But we can still do an informal assessment retrospectively. We can tally the positive and negative features of the internet in our lives. We can think about how we might have controlled and directed the evolution of the technology in the public interest rather than in the interest of those private entrepreneurs who made those decisions without public participation.

(As an aside, by this point you are starting to think about the irony of asking this question using a medium that is archetypical of the internet – a blog post. I too am keenly aware of this irony.)

Let's start our retrospective assessment with a tally of positive outcomes to date. Information is dramatically easier to find than ever in human history. Of course inaccurate information access has exploded as well. Entertainment options abound with the ability to listen to and watch unprecedented variety of content. It is easier to stay in contact with people wherever we are, whenever we want. Shopping is more efficient and choices of things to purchase are staggering. And you can use your smart phone to control just about everything in your home, from temperature control, to locks, and even to picturing your refrigerator contents to see if you need to buy milk. This internet of things, voice recognition technology, and virtual reality were imaginable only in science fiction a few years ago. The internet both makes life easier and sometimes is just incredibly fascinating. How do they do that?

Contrast this access to vast information resources and ubiquitous communication potential to the negative outcomes. There has been an explosion of consumption of pornography (by some accounts still the largest use of the internet) and dramatic increases in engagement with violent games. Brand new types of criminal activity are now possible, including cyber bullying and identify theft, virtually unheard of before the internet. It is easier to steal people's money than ever before.

A whole generation of children has been raised who are now emotionally tethered to technology and increasingly disengaged with the natural world. (See on this topic the excellent book Last Child in the Woods.) The new emphasis on virtual reality will only exacerbate this, making simple reality less important in people's lives. There are some analysts willing to link the addictive properties of internet-based technologies with the growing obesity and Type II diabetes epidemics in our society. Even more clear is how these technologies have contributed to the growth of income inequality in our society. Access to and facility with the new technologies increasingly defines economic haves and have nots. Internet technology is probably responsible for more manufacturing job losses than any free trade agreements, as technology has replaced labor in U.S. manufacturing facilities.

These are obviously incomplete lists. You can think of your own costs and benefits attributed to the development of the internet. New technologies always bring good and bad, even though we continue to be enamored with innovation in our society. Innovation is not a good thing in and of itself. We can ask now: Would we have embraced this new technology so whole-heartedly twenty-five years ago had we thought through all of its implications? Might we have worked to channel its development differently had we done a thorough technology assessment?

I don't know whether all the costs of the internet are worth being able to see a picture of the inside of my refrigerator on a smart phone or to find out on YouTube who sang *Rama Lama Ding Dong*. I do know that we would have been better served had we asked the hard questions about this new technology before we unleashed it unbridled on our culture.

Be Happy You Didn't Live in 1870

February 11, 2017

By Mark W. Anderson

Robert Gordon's 2016 book The Rise and Fall of American Growth is a comprehensive history of "the U.S. standard of living since the civil war." Gordon, a Northwestern University economist, details changes in consumption of food, clothing, shelter, and transport during a period when Americans experienced unprecedented improvement in quality of life. From brutally difficult, cold, and short lives in 1870 there was rapid growth based on new technologies. Americans came to experience unimaginable comforts. "Foreigners in countries where apartment-dwelling is still predominate continue to marvel at the living standard of typical American middle-class families, with their two-car garages and houses large enough to store their abundance of possessions." (p. 357)

The book is a judicious mix of economic data and narrative. We learn about the transformative power of innovations: electricity, indoor plumbing, railroads, mail order catalogs, rural free delivery, automobiles, refrigeration, telephones, and canned foods.

There are several lessons for 21st Century Americans from Gordon's book.

- Economic data understate how dramatic improvement was in our lives. Without getting into the minutia of price indices and Gross Domestic Product calculations, the evidence of improvements over the century from 1870 to 1970 is compelling. We grouse today about losing electric service for 48 hours, but even with that annoyance, our lives are a cake walk compared to 1870.
- The period from 1870 to 1940 saw the greatest change. "No other era in human history, either before or since, combined so many elements in which the standard of living increased as quickly and in which the human condition was transformed so completely (p. 287)."
- Key technologies were central to this better living. Gordon says (p. 128), "The revolutionary transformation of the American dwelling illustrates a major theme of this book – these were inventions that could happen only once…" Once the new technologies were diffused throughout society the growth they engendered slowed.
- "…the year 1970 marks a distinct break point between faster and slower growth. The ten decades between 1870 and 1970 deserve their accolade…as the 'special century'." (p. 522) This central thesis of the book is important today because of the promises of the new administration that a return to rapid growth is simply a matter of re-negotiating international trade deals, restricting immigration, reducing taxes on the wealthy, and deregulating American business. Those might work if trade and regulatory policies were the causes of slower growth. Gordon makes clear that they were. The post-1970 period saw a dramatic slowing in productivity due to slower rates of innovation. "…the 1920-70 upsurge in TFP (total factor

productivity in economic jargon) growth reflected the importance of the great inventions of the Second Industrial Revolution…the digital Third Industrial Revolution, though utterly changing the way Americans obtain information and communicate, did not extend across the full span of human life as did (the Second Industrial Revolution)…" p. 601 In short, rapid growth that we experienced up to 1970 is not going to return.

- Several economic "headwinds" will work against even modest growth, no matter how many walls we build or environmental quality regulations we remove. Growing inequality in the American society is first among these headwinds. (See my earlier blog on inequality.) If you read just one chapter of this book, make it Chapter 18, "Inequality and Other Headwinds." This will make it clear how misguided are the policies of the new administration in Washington.

The major problem with Gordon's book is what he leaves out. Like many neoclassical economists, Gordon accepts that growth is the result of technological innovation that yields improvements in worker productivity. He presents technological change as separated from the natural world. He ignores how biophysical constraints of nature impose limits on growth of human societies. (See, for example, my earlier blog post on ecological economics.) I expected a book on the history of American growth would include a discussion of the "limits to growth" movement of the 1960s and 1970s. Gordon does not.

Gordon is pessimistic about the future of growth in the American economy because he does not see any more revolutionary technological innovations. Yet there is a more fundamental reason that growth will not continue in our economy. A global society of over 7 billion humans pushes the economy up against basic biophysical constraints, like the ability of the atmosphere to absorb emissions from electricity production for all these people. Gordon fails even to acknowledge this notion of biophysical limits as a possibility.

For ecological economists the idea that nature imposes constraints on the human economy is not a cause for pessimism. The way out of this pessimism is to think about human wellbeing as distinct from the consumption of ever-increasing quantities of goods and services. There is more to happiness than more stuff.

No-one wants to go back to the life of 1870. For the vast major of people it was a hard, short life. The improvements in the first half of the 20th Century were liberating, changes that billions of humans on the planet today aspire to enjoy. Ecological economists recognize the fallacy of thinking that because economic growth once improved wellbeing dramatically, the way to more wellbeing is more economic growth.

Gordon's book is an important contribution to understanding the blessings we need be grateful for today. It is not my choice for a guide to where we should head next.

Robert J. Gordon. (2016). The Rise and Fall of American Growth: The U.S. Standard of Living Since the Civil War. Princeton University Press.

Immigrants in My Family

February 15, 2017

By Mark W. Anderson

The new administration in Washington continues to limit immigration to the U.S.A. with policies questioning the suitability of people from various countries to become Americans. This made me think of immigrants in my own family.

In 1913 my grandfather, William Oliver Anderson, immigrated to Massachusetts from Glasgow, Scotland. He made a career in the shade-grown tobacco industry in the Connecticut River valley and became a keystone in his community of Wethersfield, Connecticut. William Anderson, immigrant.

My great grandmother, Christina Hellen, immigrated from Cape North, Nova Scotia to New Gloucester, Maine in the 1870s. She worked as a maid in the household of a wealthy Auburn family and then married one of the sons in the house; it was a scandal at the time and the marriage may not have been all that happy. Yet she persevered and built a thriving storage business during the Great Depression when other businesses were going under. Christina Hellen, immigrant.

A bit earlier, in 1640, a great, great….grandfather of mine, Robert Jordan immigrated from England to what is now Portland, Maine. He was a prominent minister in the community and left a legacy of many descendants who still live in Maine today. Robert Jordan, immigrant.

Another great, great…grandfather, Isaac Allerton, immigrated from England to Plymouth Plantation in 1620 (yes, that was on the Mayflower). By some accounts, Allerton was a bit of a scoundrel, but he played an active part in the founding of the colony by the Separatists. Isaac Allerton, immigrant.

And there are others in my family tree who came here from elsewhere. Each had the same goal in mind. They left their homelands to build better lives for themselves. Their dream was the American dream, the one you and I live. Many of them just had to work a whole lot harder to make that dream a reality. Not all were Saints and not all were rogues. Some failed dramatically and many prospered in the new land, which became their home land. They were immigrants; their children were native born.

So when I see Somali refugees in Lewiston or descendants of Acadians in Van Buren, I see reflections of my own family. Mexican migrant workers raking blueberries in Cherryfield follow a path like that of my ancestors. In Trenton in August, women from

Caribbean nations wait for the bus to transport them to clean the hotel rooms of visitors to America's great national park. In order to build a better life for themselves, they do work most Americans would not undertake. So did my immigrant ancestors.

Just because some of my forebears immigrated a few years earlier I am no more deserving of the better life here. The accident of my birth in Maine is nothing I can take credit for; rather it is a gift for which I am grateful. And gifts are best shared.

In whatever ways you think America is great or needs to be made better, our history–my history–tells us that immigrants from across the globe will play a part. Our doors cannot be open to everyone who would come, but those doors also cannot be closed in inhumane and narrow-minded ways. Our core values as a nation demand more from us, a just and humane way of managing this challenging problem. Let us start that conversation now.

Two Facts and One Big Question About American Health Care

February 21, 2017

By Mark W. Anderson

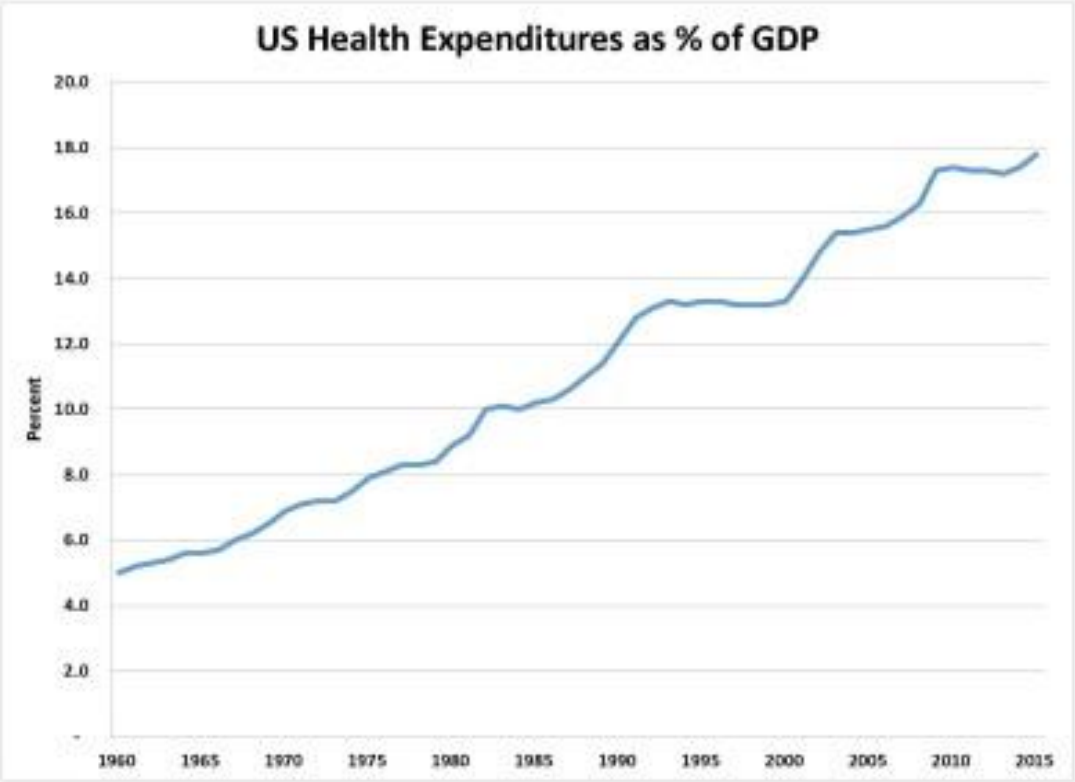
For several years, Republicans in Congress routinely made a show of voting to repeal the Affordable Care Act (ACA), which they pejoratively labeled Obamacare. Having refused to participate in the crafting of health care reform, they offered no alternative to the ACA. Nor did they suggest ways to improve the system despite the President's call to work together on modifying the system. Now that Republicans have a ruling majority, we see hints of new policy but no comprehensive plan to replace the ACA.

One of the most popular features of the ACA is its requirement that insurance companies offering policies in the marketplace cover people with pre-existing conditions. To maintain this type of coverage, the Speaker of the House suggests a fiddly alternative policy where those with pre-existing conditions are placed in special "high risk insurance pools." These pools would be subsidized by the Federal government so that those without such conditions get insurance in markets not contaminated with sick people. Maine's Senator suggests a plan where states can keep the ACA if they want or they may abandon it for some unspecified new plan. Other Republicans suggest allowing the purchase of insurance across state lines, which the ACA does not allow. Supposedly the big insurance companies would be more competitive with each other across state borders.

Proponents of these policies pretend that the problem with health care in America is that we have failed to structure insurance markets correctly. The premise is that more competition in insurance markets is all that is required to fix the health care system. Any careful economic analysis shows that health care markets cannot become competitive, so trying for more competition in insurance cannot fix our flawed system. To heal a sick system you need to start with a proper diagnosis. To get a proper diagnosis you need to pay attention to the symptoms. All of these ACA alternatives are flawed because they ignore two fundamental facts.

So what two facts are we ignoring?

First, we spend far more of our nation's economic output for health care than any other country in the world. The U.S. dedicates over 17% of Gross Domestic Product to health care. The difference between us and the next highest, Sweden, is huge. Sweden spends 11.9% of its GDP on health; while most of the rich nations spend between 10% and 11% of their economies' output.



But you might argue that by spending a lot we get the best health care in the world. That could make it worthwhile to divert economic output that could otherwise go to housing, nutrition, infrastructure, etc. I might agree if we got the best health care in the world. Clearly we do not, the second important fact.

The most basic measure of the health of a population is life expectancy at birth. There are other ways to measure population health, but this is the most straightforward. With better health care systems people live longer. Better health translates into longevity. U.S. mean life expectancy at birth is just under 80 years. Forty seven countries (yes, that is 47) have longer life expectancy at birth and all of them spend a much smaller portion of their economic activity on health care than we do.

So the obvious question we are not even talking about is, why do other countries get so much better health care with so many fewer resources? It is not about the competitiveness of insurance markets. The issue is much more fundamental.

While the ACA did slow and then halt the increase in GDP going to health care the basic system continues:

- Millions of Americans remain uninsured, even though millions of previously uninsured were helped by the ACA. The health care system remains one of the clearest examples of inequality we have in our economy.
- Payment for health care is provided by a dizzying array of institutions – private insurance through employers, private insurance through ACA markets, the V.A., Medicare (with or without private insurance supplements), Medicaid (to varying degrees from state to state), and charity care. Each system has its own rules for what it pays and how it processes payments. This is another sign of inequality in our system and a source of considerable waste.
- Pharmaceutical companies continue to price drugs for Americans at higher prices than they charge in the rest of the world and continue to spend billions advertising drugs to patients who need to get providers to prescribe those drugs. Market power exercised by drug companies is one reason why market competition cannot work in health care.
- Primary care providers are in short supply due to relatively low pay and specialists are paid more here than in any other rich country of the world.

The system is fundamentally flawed. Until we address the fundamental problems we will continue to pay much more and get much less from our health care system. We deserve better. Let's acknowledge the facts and ask the big question. Why do so many countries get more for less? How can we make our system more like their's so that we too can benefit?

The Most Important Economist You Probably Have Never Heard About

February 28, 2017

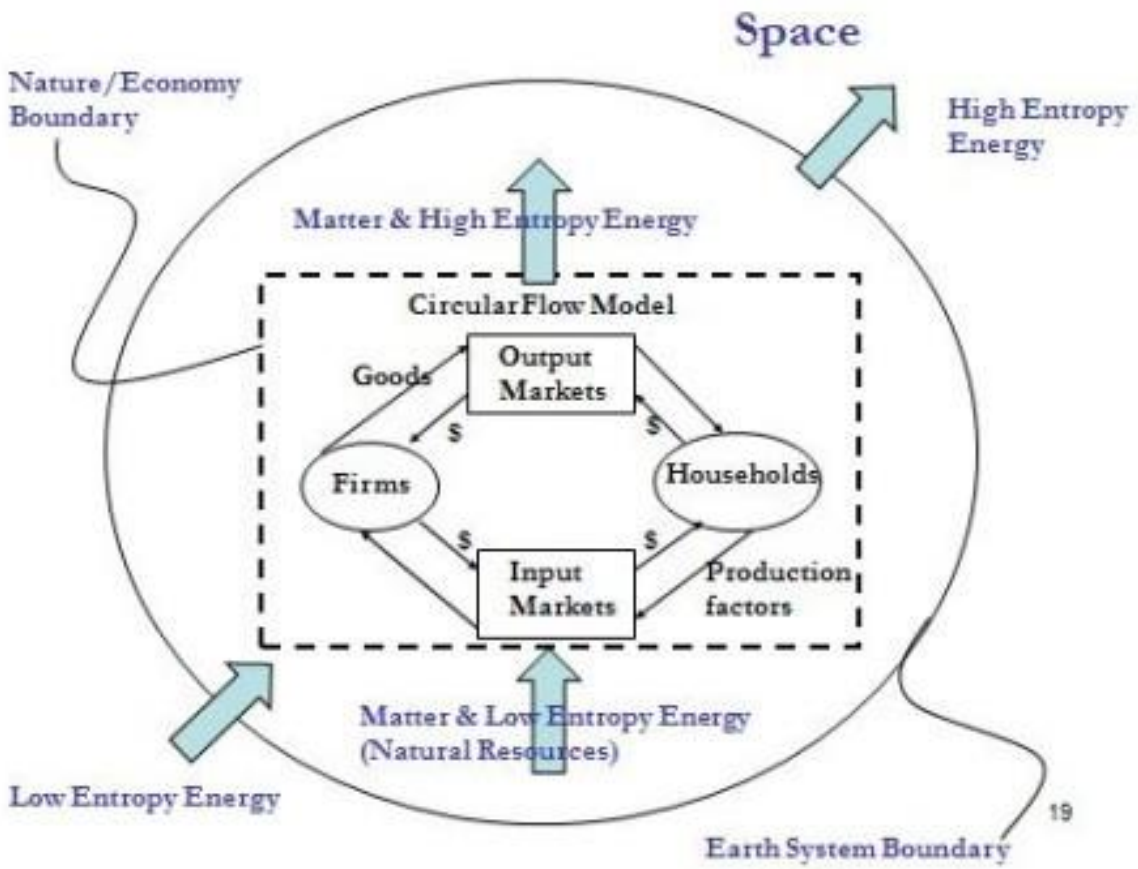
By Mark W. Anderson

Economists become famous by winning the Nobel Prize (technically the Swedish National Bank's Prize in Economic Sciences in Memory of Alfred Nobel) or becoming public intellectuals like John Kenneth Galbraith or Paul Krugman. But economists do not have to be famous to be important. Significant contributions come in many guises.

The most important economist you may never have heard about is Herman Daly, sometimes known as the father of ecological economics. Daly challenged the prevailing of 20th Century economic paradigm, building on earlier work by John Stuart Mill, Nicholas Georgescu-Roegen, and Kenneth Boulding. Daly's vision provides reason for hope when the prevailing model suggests pessimism.

In my recent blog on Robert Gordon's new book The Rise and Fall of American Growth I laid out the reason many conventional economists are pessimistic about future economic growth. In the conventional paradigm growth is created by innovations that improve the efficiency of labor and technology (increases in total factor productivity in economic jargon). Gordon suggests that the technological changes created the dramatic economic growth from 1870 to 1970 and such innovations are not likely to be replicated in the future. Gordon believes the economic growth of post-World War II America is unlikely to return.

Daly's vision is different. He sees the end of the economic growth of the past century to be necessary. We need a new paradigm to understand this difference, as explained in a new book, Beyond Uneconomic Growth. This collection of essays is an homage to Daly and his innovative thinking.



Economic System Nested in Natural System

The core of Herman Daly's economic thought is seen in several key insights. First, Daly sees the economy as a system nested within the larger biophysical world; the economy is not separate from nature, the unstated assumption of much modern economic thinking. The human economy ultimately relies on importing matter and energy from nature and returning that matter and energy back to nature when we are done with it. (Physicists remind us of their first law, matter and energy can neither be created nor destroyed.) The economy is constrained both by the quality and quantity of resources to be imported from nature and by the ability of nature to handle waste matter and energy. Daly's insight was rooted in the work of his mentor Nicholas Georgescu-Roegen, who emphasized the role of entropy in economic systems. A challenging read on this topic is Georgescu-Roegen's book *The Entropy Law and the Economic Process*.

Second, recognizing that the economy is nested within nature changes the economic paradigm. Economic growth is as much a function of the matter and energy we extract from nature as it is of technological change. Natural resources and technology are complements, not substitutes for each other. Therefore growth cannot continue

indefinitely no matter how clever we are. There are limits to growth imposed by the natural world. Kenneth Boulding provided a foundation for Daly in this area of thought.

Third, Daly then concludes that we need to figure out how to live satisfying lives in a non-growth environment, what came to be known as steady-state economics. Here there is a separation between the ideas of growth and development. Lives can improve (develop) without increasing matter and energy use (growth). Daly recognizes that a central problem in this non-growth world is distribution. Many conventional economists shy away from addressing the distribution of goods and services in society. They assert that economists should not say who should get more or less of society's produce; those decisions are left to market outcomes, particularly when markets produce economic growth. "A rising tide lifts all boats." Daly argues that we need to face distribution head on and a steady state economy must also be one that deals directly with inequality. Economics cannot ignore ethics.

Finally we learn from Daly that what we measure matters. Journalists, policy-makers, and some economists are fixated on Gross Domestic Product (GDP), a deeply flawed measure of how well the economy serves people. In the book Daly co-wrote with John Cobb *For the Common Good: Redirecting the Economy Toward Community, the Environment, and a Sustainable Future*, he details one alternative to GDP, the Index of Sustainable Economic Welfare. This spawned an outpouring of research on alternatives to GDP. Daly understood from his time working at The World Bank that what matters gets measured. How things are measured matters even more.

Beyond Economic Growth shows the enduring impact of Herman Daly in challenging the conventional paradigm. He was tireless in promoting the understanding that economists cannot ignore the laws of nature. He challenges us to recognize that, just because our society was able to enjoy increasing levels of material wellbeing for over a century, we can continue that path indefinitely. Like honest investment advice, the lesson is that "past performance is not indicative of future results."

The irony is that Daly is really more optimistic than Robert Gordon. Gordon worries that we are unable to continue economic growth. Daly hopes that we will choose not to grow in the future. Instead we must find ways to make better lives for all in harmony with nature, the source of that life.

Farley, J., & Malghan, D. (Eds.). (2016). *Beyond Uneconomic Growth: Economics, Equity and the Ecological Predicament*. Edward Elgar Publishing.

What Would You Do With an Extra $100

March 5, 2017

By Mark W. Anderson

For some Mainers, the answer might be to stock up on Allen's Coffee Brandy and buy a few lottery tickets. Others would pay off some credit card debt or put the money in the bank. Some might buy blankets and towels to give to the local humane society to better care for furry friends. A donation to the local food bank might be in order; or you might take your best friend out for an extra good meal.

Whatever your answer, economists would say that it has to do with the concept of marginal utility of income. Economists assume that you would choose the option for newfound income that gives you the greatest extra (marginal) satisfaction (utility).

The idea of marginal utility is central to modern economic thinking. Economists believe that for most goods or services humans experience diminishing marginal utility. The first slice of cheesecake with chocolate sauce is superb, provides high utility. A second slice may be good, but not as good as the first. The extra (marginal) satisfaction (utility) from the second slice is less (diminishing). The third slice of cheesecake is a struggle to get down and the fourth is sickening, perhaps creating negative utility.

If you took an economics course sometime in your life, you may remember demand curves. They have a negative slope because of this idea that marginal utility is diminishing. In most cases this explains why people are often willing to pay a higher per unit price for the purchase of one item than they would if they were buying two of that same item — diminishing marginal utility. Hence the popularity of BOGO sales by retailers – buy one, get one half price. You'll buy the second item only if you can get it for less than you paid for the first.

It turns out that for most people, income is like cheesecake. It has diminishing marginal utility. After your basic needs of food, clothing, and shelter are met, extra income generates less utility than the income received just before it.

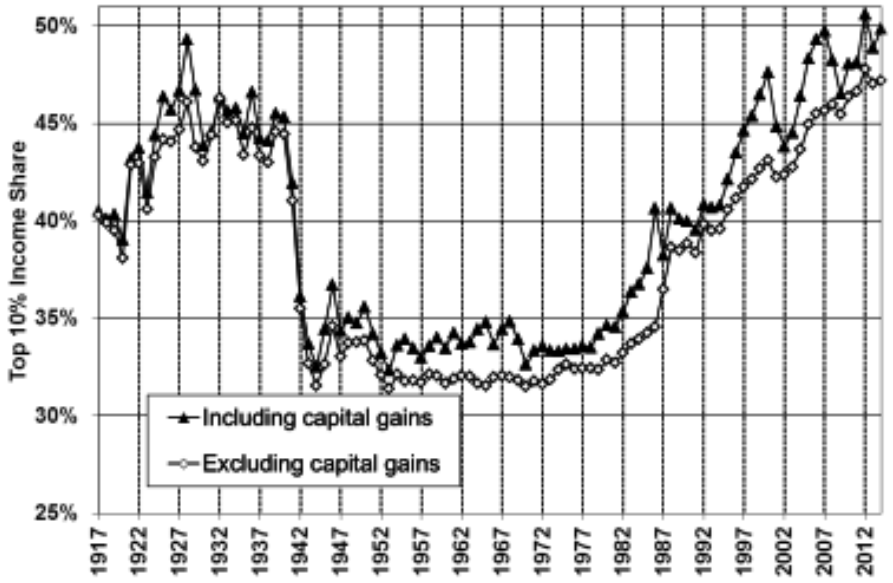
But every individual is different (coffee brandy vs. donations to the food pantry). While economists are confident from lots of empirical research that diminishing marginal utility of income applies to individuals, they have long been reluctant to compare the utility of income between people. The admonition to young economists is, "thou shalt not make interpersonal utility comparisons." Economists are supposed to be objective

and leave ethics to philosophers or editorial writers. Who is to say that choosing cheesecake over lottery tickets makes society better or worse?

So deciding who gets income is not a problem that economists like to address.

There are two problems with this insistence on nominal objectivity. First, at least at the extremes, it is patently obvious that the marginal utility of income is different between people. There is no denying that $100 would be much more valuable to a homeless person on a cold March night in Maine than it would be to Bill Gates or Mark Zuckerberg. So you can, in some case, make utility comparisons between people. Second, since much economic policy affects the distribution of income (see my early blog post Class Warfare?), economists cannot hide behind the veil of objectivity when it comes to income.

Here is the policy implication. Even if public policy is neutral in terms of its effects on different income groups, that could disadvantage lower income recipients. If the marginal utility of income is greater among lower income people, $100 to them will generate more total well-being than it would to those with higher incomes. Just saying that a rising tide lifts all boats ignores this reality.



Share of U.S. Income Going to Top 10% — Source: E. Saez

As is now well documented, economic policy in the U.S. has led to a steady increase in income inequality since the 1970s. The highest income earners have gained the most. In effect we have shifted the share of national prosperity steadily **from** those who may benefit more from extra income **to** those who likely benefit less from extra income. Yes, I am violating the admonition to young economists. I am willing to admit that making "interpersonal utility comparisons" is legitimate.

So as we confront proposals for replacing the Affordable Care Act or making changes in the Federal Tax Code let us stay keenly focused on distributional effects. Who will get to decide what to do with an extra $100, or $1,000,000, as the case may be?

Maine Roads Still Stink

March 13, 2017

By Mark W. Anderson

One of the first blogs I did for Stirring the Pot was "Maine Roads Stink." The blog confronted our ambivalence in Maine about how and by how much we fund transportation infrastructure. We complain about roads and bridges, particularly during mud season, but we want someone else to pay. In particular, we fail to ask current users to pay for their impact on highways. Rather, we want future taxpayers to foot the bill, so we borrow money to pay the costs of highway improvements. Transportation bond issues seldom fail to be passed by Maine voters.

Nevertheless, Maine roads still stink. The latest report card from the American Society of Civil Engineers gives Maine a C- grade for its infrastructure. This is better than the nationwide overall grade of D-, but not a source of pride.

If we are serious about improving the quality of economic opportunity for Maine people, there is no more fundamental task than developing good infrastructure. When it comes to fair and efficient means of funding transportation systems, we should ask current users to pay their way.

This means we need to raise the motor fuels tax. The so-called "gas tax" is not perfect; for example it misses electric vehicle users. But the gas tax is far and away the best alternative we have to fund highway maintenance and repair costs. The two factors that affect bridges and roadways are the number of vehicle miles driven over them and the weight of the vehicles traveling those miles. The gas tax captures both of those factors better than any other funding source. The users who drive more miles with heavier vehicles will pay proportionately more taxes.

If we want to get clever with the gas tax and have non-Mainers pay more of it than we do, we can raise the gas tax from May through October and lower it from November to April. In that way, visitors to Maine would pay a higher share.

No one wants higher taxes. But as the engineers point out, we pay for our poor highway infrastructure in higher vehicle maintenance costs, more accidents, and longer commutes. Now is the time to confront the reality of Maine roads and bridges. If we want a higher quality of transportation in Maine we need to be willing to pay for it. And the best way to pay for it is to have the users pay.

It is time to raise the gas tax.

Biomass Energy and Climate Change

March 18, 2017

By Mark W. Anderson

The new administration in Washington is filled with climate change deniers. They reject the consensus among scientists that human behaviors emitting greenhouse gases contribute significantly to climate change. The reality — climate change is part of a larger problem better known as global change. Over 9 billion humans, many living relatively sumptuous lifestyles like ours in the U.S., are changing how the planet functions. Some geologists believe we have entered a new epoch, The Anthropocene (see my blog post, Open Season on Chickadees).

It is too important to our collective future to let the short-term vision of the anti-science administration in Washington reduce our commitment to getting climate change policy right. I hope, before we cross a point of no return in global change, to see an administration and a Congress willing to address the problem seriously.

One important question in climate change policy is how to treat the use of wood and other biomass for the production of fuels. This is obviously important to us in Maine because the state is so heavily forested and declining numbers of paper mills leave questions about how best to use our forest resources. How should the emissions of carbon dioxide from burning wood to generate power be treated? Is using wood different from using coal, oil, or natural gas when it comes to climate change? A recent article in *Science* magazine reviews some of the controversies – "Is Wood a Green Source of Energy?"

There are two simple answers to this question.

No, burning wood is just like burning coal, oil, and natural gas. One of the primary byproducts of burning any of these is carbon dioxide, the largest contributor to climate change. In fact, burning wood produces more carbon dioxide per unit of power produced than burning any fossil fuels. Or…

Yes, harvesting wood for energy production allows replanting and re-growing trees that remove carbon dioxide from the atmosphere, directly offsetting the emissions. International climate change agreements to date have adopted this second approach, calling emissions from biomass "biogenic carbon" and treating them as carbon neutral sources of energy. The article in *Science* prompts us to think about

whether this is a good policy for the future once we have an administration not captured by energy industry special interests.

In the spirit of full disclosure, we heated our Maine home for nearly 25 years exclusively with wood burned in a wood stove, much of that wood harvested from our own wood lot. That may be as close to carbon neutral energy as you can get. But it is a far cry from the industrial production of electricity with wood pellets produced in Georgia and shipped to England discussed in the *Science* article. Like the fallacy of counting corn ethanol use as a climate change mitigation strategy, I am convinced that wood as an energy source is far from carbon neutral.

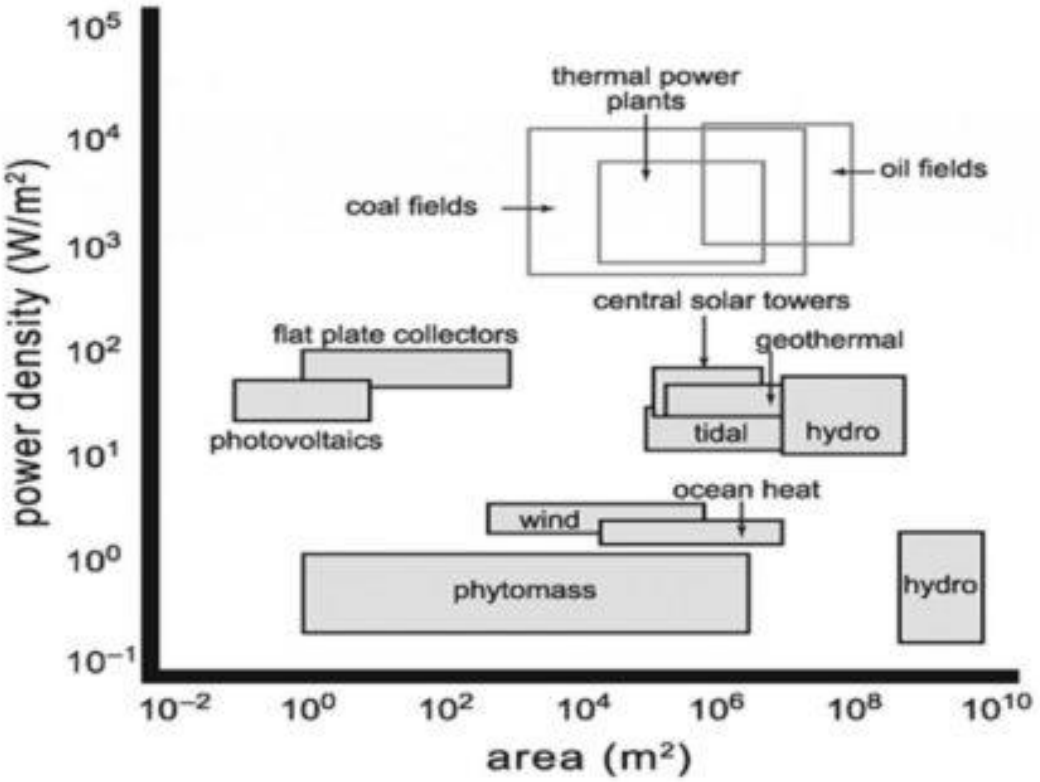
When it comes to climate change policy we should treat biofuels the same way we treat coal, oil, and natural gas. My preference is a carbon tax, taxing energy on the carbon emissions per unit of power delivered. There are several reasons we should treat biofuels, whether they be wood pellets, ethanol, or biodiesel, in this manner.

First, even if the land where trees are harvested for fuel grows back into forests it is decades or even a century before the biomass has removed the carbon dioxide from the atmosphere emitted by the combustion.

Second, it is not just the carbon in the trees that matters, particularly in boreal forests like Maine. Some of my best friends are soil scientists who remind me that in northern forests there may be as much carbon in the soils as there is in the biomass above ground. Depending on how forests are harvested and otherwise managed, a little or a lot of this soil carbon can be released. So it is not just the carbon emitted by the power plant when wood is burned that needs to be counted. And if it is decades for carbon to return to biomass through tree growth, it is even longer for it to build back up in the soil — maybe never.

Third, it is not just the carbon released by the combustion of the wood and the respiration of soils that needs to be counted. There are carbon emissions from fossil fuels used to harvest, transport, and process wood before it is burned. All of these count for climate change as well, and that carbon is never to be replaced by tree re-growth. The idea that it takes energy to produce fuels is why many scientists believe corn ethanol has a negative energy return on investment. That is, it takes more energy to produce corn ethanol than is contained in the final product.

Finally, without getting too much into the technical weeds, biofuels in general and wood for power production in particular, have what Vaclav Smil calls a low power density. Power density may be the best single metric for comparing alternative energy resources. It essentially measures how dense energy is in terms of space and time. Powering modern industrial societies with wood creates a big footprint.



Power Density — Source: Vaclav Smil

These four factors alone should make us wary of using wood for industrial energy production. Of course, there are many other negative impacts from harvesting forests to burn wood to produce electricity. There are potential landscape scale impacts on watershed function, biodiversity, outdoor recreation, and other biogeochemical cycles.

I am not arguing that we should never use plant products – trees, corn, sugar cane, or switchgrass – for producing energy. All energy sources for modern society have adverse impacts of different sorts, including fossil fuels, biofuels, wind power, solar power, and nuclear power. The best energy choice is always investing in efficiency, so-called negawatts. Programs like Efficiency Maine should always be our first choice. We can live high quality lives with less energy consumption.

When we do generate power, let's not succumb to the mythology that biofuels have no climate impacts. If and when we do address climate change seriously, biofuels should be treated honestly for what they are, a net contributor of greenhouse gases to the atmosphere. They are not carbon neutral.

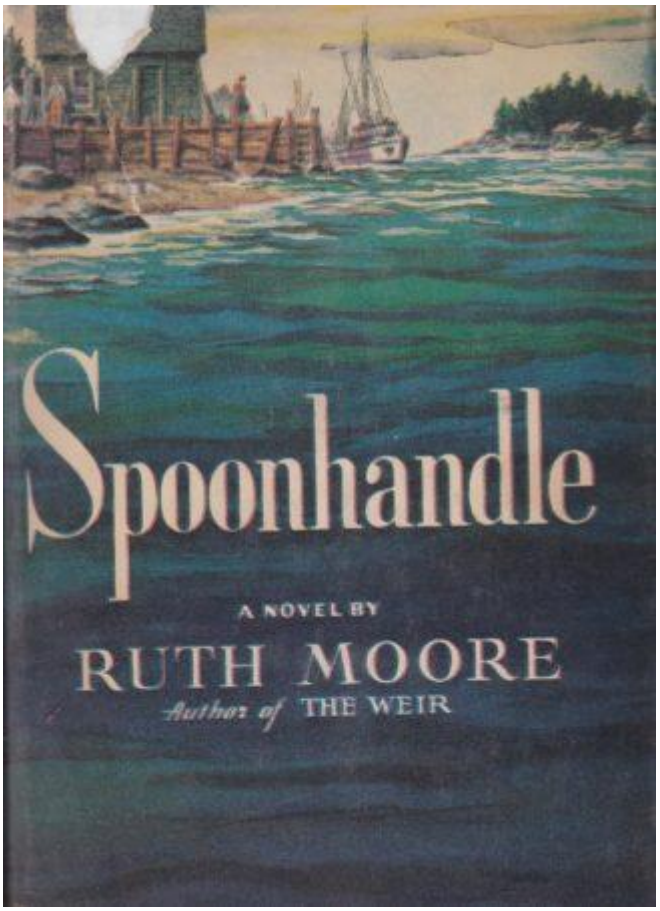
Reading Maine

April 1, 2017

By Mark W. Anderson

For the New Year I have been reading again many of my old favorite works of fiction. Re-reading good books is a pleasure. Included in my list are things like Alistair MacLeod's *No Great Mischief* (the great Canadian novel?) and John LeCarre's *The Spy Who Came in From the Cold* (every time I read the story I am sure this time they will make it across the Wall). As much as I enjoy these titles, I realized that many of my favorites are from Maine literature.

I have long been interested in what makes someone a Maine writer, a question I wrote about years ago in an essay called "Two Pigs From Maine: Reflections on Authenticity in Regional Literature." For me, authentic Maine literature captures elements of the Maine character and experience that are timeless. What Maine writers have found about this place and people often holds true decades after being used in Maine stories.



If you want to understand the phenomenon of high school basketball in the small towns of Maine, there is no better way than reading Ruth Moore's *A Walk Down Main Street.* Even though it describes the experiences in one coastal town many years ago, the story rings true today.

Much of the Maine experience reflects the tensions between locals and "those from away." The details of those tensions may change over time, but their essence does not. So I find resonance in Mary Ellen Chase's *Windswept* or Ruth Moore again with *Spoonhandle*, which is perhaps my favorite Maine novel. Relations with summer people can tear a town apart even when they provide economic life blood.

Life in rural towns does not need people from away to make it challenging. Those challenges, particularly in towns reliant on the bounty of nature for their survival, are a common theme in Maine literature. Few describe this better than Cathie Pelletier in *The Weight of Winter* or Mary Ellen Chase in *The Edge of Darkness*. While Pelletier writes about northern Aroostook County and Chase about coastal Hancock County, each describes the despair and the hope of Maine town life. *The Weight of Winter* also shows us part of the reality of different lives of the two Maines. Her fictional Mattagash is a long way from Portlandia.

Speaking of Portlandia, I recently heard on the radio an interview with a proponent of the "new" Maine food culture. She exclaimed pretentiously that the idea of a food culture was something alien to Maine a few decades ago. I immediately thought of R.P.T. Coffin's *Mainstays of Maine*. Coffin, Maine poet and essayist, often published in *Gourmet* magazine and elsewhere about Maine food culture of the early 20th Century. Only the naïve would think that a food culture was brought to Maine (by those from away?) in the 21st Century.

Maine food was often about harvest from nature. There is not a better telling about this than Lawrence Sargent Hall's gripping short story, "The Ledge." Hall's short story won the O'Henry prize and was widely anthologized. Larry Hall was an expert in teaching expository writing, and I had the privilege of learning from him in the fall of 1970. Yet he is best known for this masterpiece of Maine writing.

And there is so much more. You could learn about the settling of Maine by Europeans from Ben Ames Williams or about Revolutionary Maine from Kenneth Roberts. C.A. Stephens described 19th Century Maine farm life and Henry Beston told about early 20th Century farm life. So did RPT Coffin, best in poems. Then there is Elisabeth Ogilvie or Louise Dickinson Rich (*The Peninsula* is her best). Rich is a word that best describes the legacy of Maine writing left to us over the centuries. Reading these is a delightful way to understand who we have been and who we may become.

In his New York *Times* book review of Pelletier's *The Weight of Winter* novelist Tim Sandlin said, "…after reading Stephen King, Carolyn Chute and now Cathie Pelletier, I've come to a conclusion: I would not live in Maine for all the Guggenheim grants in creation." Of course, we know that for all that is revealed by this body of Maine literature, we would not live anywhere else.

Call Me a Luddite

April 29, 2017

By Mark W. Anderson

Back in January I wondered out loud, Was the Internet a Good Idea? To my way of thinking the information technology (IT) revolution of the past 25 years has been a mixed blessing. It both created amazing tools for doing everyday tasks and introduced whole new means of mindless addiction and criminal opportunities.

This IT revolution reflects something more important about our culture than our penchant for finding ever more trivial ways to waste time, become disengaged from other human beings, and separated from the very nature that sustains us. It reflects acceptance of the false economic dogma of market decision making. This idea that markets are the best means of making society's decisions is most closely associated with Chicago school economists like Gary Becker, Milton Friedman, and George Stigler.

The concept is simple. Markets, through the magic of the "invisible hand," will serve society well because markets invariably weed out all kinds of bad behavior and reward good behavior. We do not need to worry about worker safety or consumer product safety because markets will punish firms that behave badly. If a company has too many worker accidents or causes too many illnesses the market will punish it by forcing the firm to have to pay higher wages to attract workers. So firms will protect workers to keep wage rates lower. Likewise, firms selling unsafe or defective products are punished in the market because buyers will learn to buy from other firms. One of the candidates for the job of Food and Drug Administration Administrator in the new administration has argued that the FDA should not require firms to prove that new pharmaceuticals are actually effective in treating disease. The drug market will sort that out, penalizing firms with ineffective products and rewarding firms whose products actually do what they are supposed to do. (Thankfully, he did not get the FDA appointment.)

This kind of absolute belief in markets shows up in Maine as well. Remember when we forced electric utilities to get out of the power generation business? Market competition was going to create the incentives such that consumers would have lots of choice of electricity suppliers and lower power costs. How did that work out? We had lots of firms that did not actually generate electricity buy power on spot markets and re-sell it to Maine consumers, often at higher prices. But markets did not produce new power sources or lower prices.

It is not that all market decision making is inherently bad. Markets can be wonderfully efficient social organizations for making complex decisions and mediating among

competing interests. But often this happens when the market rules are set by government; rules are what we call regulation. Both markets and governments are capable of colossal failures and elegant successes. It takes great care to make sure we find the right combination of market and government decision making. What economist Joseph Stiglitz says about inequality applies to markets when they function well. Market success is a product of political choices we make, it does not happy spontaneously.

Information technology is the wild West of market orthodoxy, a world where anything goes. Society admires the IT moguls who learn to exercise market powers most effectively. No worry about whether the technologies will contribute to human wellbeing because we can trust that the market will sort all that out.

The *Economist* magazine recently reported on a new "app" that will "clone voices." That sounds innocent enough until you delve into what these new technologies do. Given enough recordings of a person's voice, the technology will take text and convert it into speech that sounds like the person whose speech you are trying to reproduce. And it already works well enough to routinely fool both humans and speech recognition software that is part of security systems. What a boon this will be to the fake news industry or those wishing to use recordings as part of legal proceedings. How is the market going to sort all that out?

Our collective acquiescence to the idea that innovation, mediated through markets, will always give us new things that are good for society is a new phenomenon. As I pointed out in that earlier blog, fifty years ago we were collectively much more willing to question new technologies. We were not content to let markets make all the innovation decisions for us. The U.S. Congress had an Office of Technology Assessment to provide our Senators and Representatives objective information on the social, economic, environmental, and other impacts of new technology. Its role was to identify those things about innovation that markets might not automatically sort out for us. The fundamental ethic was to anticipate the impacts of technology so that society can address problems before they occur. Public policy could then be applied to make sure that technologies were in the public interest as well as the private interests of those wanting to make money from them, regardless of their societal impacts.

Unfortunately, the Office of Technology Assessment was swept away as part of "The Contract With America" led by Newt Gingrich in the 104th Congress. No need for government spending tax dollars to investigate technologies when the markets would do the work for free.

The fact that new technologies favored by markets made Bill Gates, Elon Musk, Mark Zuckerberg, and others fabulously wealthy does not in and of itself mean that the technologies were good for society. In some ways these are examples of how what

economists call market power can distort outcomes and lead to socially undesirable technology applications.

Call me a Luddite, fine. But it is time for society to wrest back control of our future by exercising some caution and to expect that we channel innovation to maximize human wellbeing. Markets can succeed and they can fail. What they do not deserve is our slavish reliance on them for sorting out the costs and benefits of new technology.

Political Courage and Cowardice on Taxes

May 6, 2017

By Mark W. Anderson

The trouble with taxes is that no one likes to pay them. We want the services of government (good roads, public schools, national defense, a functioning court system, etc.) but would rather that someone else pay for these things. Yet taxation is necessary in modern society. Taxes are needed to fund what economists call public goods. The government has the duty to protect the public health, safety, and general welfare, what are known as "police powers" in our common law tradition. Providing for the general welfare takes resources that we pay for with our taxes.

A good system of taxation is efficient. The taxes are easy to collect and hard to evade. Good tax systems are fair. There is a link between taxes and taxpayer both in terms of ability to pay and in terms of what is being paid for. When government provides services enjoyed by some subset of taxpayers, in general that subset should be asked to pay more. This is the user pays principle. And all else being equal, taxes can be used to provide appropriate incentives, discouraging behaviors that are socially undesirable or encouraging those that are desirable. So we tax cigarettes not just to raise funds for public health programs but also to discourage smoking.

But even good taxation, that which is fair, efficient, and designed with appropriate incentives, is politically perilous in American culture. More than any other wealthy, industrialized society, we demonstrate a preference for individualism over collective wellbeing. So supporting good tax systems is politically dangerous and advocating for tax cuts of any kind is politically popular.

The courage it takes to support good taxes and the cowardice of supporting irresponsible tax cuts was evident over the past few weeks.

State Representative Andrew McLean has introduced legislation (LD 1149) which will, among other things, raise the gas tax to help fund transportation infrastructure in Maine. I explained in an earlier blog, Maine Roads Still Stink, the reasons that higher taxes on motor fuels are desirable. In fact, motor fuels taxes are efficient, fair, and create the appropriate incentive structure to serve the general welfare of society. I do not know whether there is any support in the Maine Legislature for Representative McLean's bill, but he is courageous to propose the right thing.

At the other end of the spectrum, the new administration in Washington shows cowardice with its recently outlined income tax plan . The document released in April falls short on details, but is a classic case of promising tax cuts for everyone while failing the fundamental fairness test. This is cowardice on taxation. Despite the promise of benefits for middle income taxpayers, the plan's primary beneficiaries are high income households and larger corporations. If anything like this proposal were passed the result would be a further exacerbation of income inequality in the U.S. and a ballooning federal budget deficit, asking future generations to pay for cutting the taxes of today's rich Americans.

The plan would be "paid for" by reducing healthcare access and raising healthcare costs for the least well off in our society. In addition, the administration is embracing the discredited Laffer curve concept, the idea that reducing tax rates for higher income households will increase tax revenues by stimulating economic growth. There is simply no evidence that this is anything more than wishful thinking.

The cowardice in this tax proposal is the political ploy of saying that it is designed to help middle income households, when in reality it is another major transfer of wealth to those already most well off in our society.

I applaud the courage of Representation McLean and condemn the cowardice in Washington.

What Gets Measured, Counts

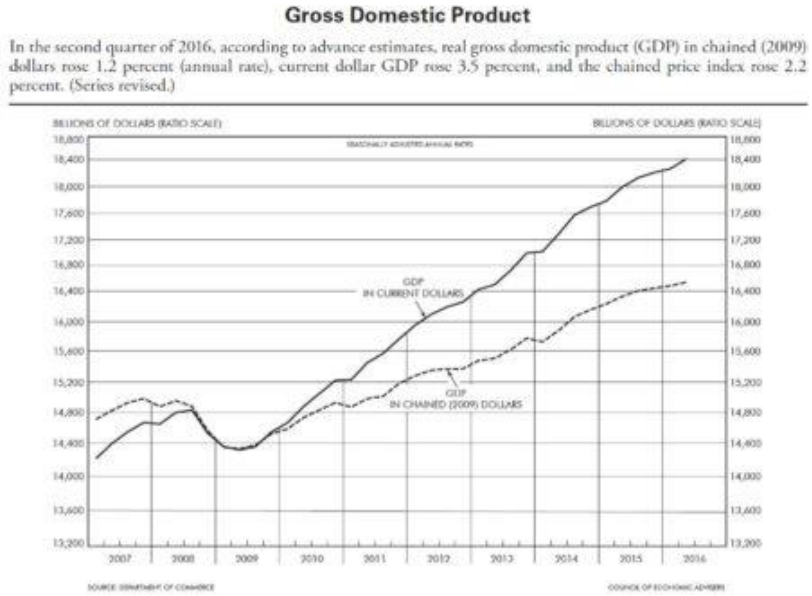
May 14, 2017

By Mark W. Anderson

A few years ago I was visiting the museum of a local Maine historical society. When the docent discovered I worked as an economist, he immediately wanted to show me their collection of early currency that had circulated in the community. His assumption was that an economist would, of course, be interested in money. I really wasn't interested.

While economics often has to do with measurement of human and natural phenomena in monetary terms, there is much more to economics than just money. I prefer a definition of economics as the allocation of scarce resources to satisfy human needs and generate human wellbeing. That has to do with much more than measuring things in dollar terms.

I thought of this issue of what gets measured in economics when I checked the March data synopsis prepared for the Congressional Joint Economic Committee, Economic Indicators. This publication has changed little for decades and reflects the idea that economics is only about what can be measured in dollar terms. The idea is clearly illustrated by the lead indicator in the publication, Gross Domestic Product (GDP), the dollar value of goods and services produced in an economy.



U. S. Gross Domestic ProductGDP is a metric widely criticized by economists. For example, see the work of Nobel Laureates Joseph Stiglitz and Amartaya Sen, along with Jean-Paul Fitoussi, Report by the Commission on the Measure of Economic Performance and Social Progress. It is not that GDP is unimportant, rather it is incomplete as a measure of how well an economy provides welfare for people. As such, it gets much too much attention by policymakers. Economists enable this misplaced importance.

Let me give a simple example of the kind of things GDP misses. Recently I took a copy of Mary Ellen Chases's novel The Edge of Darkness off my bookshelf. I think this is one of Chase's best works and is clearly illustrates community life in coastal Maine. Re-reading the book gave me great pleasure and reaffirmed some of my understanding of Maine as place. The book was part of my mother's library and I think she got it from a library used-book sale. So the book probably had no impact on official GDP statistics since 1957 when it first sold in the market place. Yet it continues to generate wellbeing to this day. Wellbeing is more than just the dollar value of transactions in markets.

Contrast my enjoyment from reading Maine literature with the lunch I had a few weeks ago at a central-Maine restaurant I have enjoyed in the past. The vegetables were undercooked, the service was indifferent, and the steak was tough. Yet the price I paid for the meal (too much, in fact) registered in the GDP statistics for the month. GDP measured a market transaction that I regretted, not a source of personal satisfaction.

In fact the whole of Economic Indicators reflects the unwillingness or inability of policy makers to think more broadly about what we should measure. It is natural to suggest that economists are at fault here, but the reality is that there is a flood of academic writings from economists that suggests additional metrics that should be central to our understanding of economic performance. These include measures of:

- Economic inequality
- Spillover effects, what economists call externalities
- Human health and longevity
- Life satisfaction or happiness
- Ecological systems that provide the life support for humans on the planet

These metrics and many more are indicators of how the allocation of scarce resources affects wellbeing. All the things that matter are not readily measurable in dollar terms. It is time we broaden our view of what we should measure when we talk about economics, because we focus in public policy on what we measure

312 & 2,600,000,000

June 3, 2017

By Mark W. Anderson

I am inspired by students from Dalhousie University in Halifax who have been getting tattoos. These are simple tattoos, just three digits, placed somewhere conspicuous. The number is the concentration of carbon dioxide in the Earth's atmosphere in their birth year. Were I inclined to get a tattoo, mine would be 319.

Since my birth year, I and billions of other humans on the planet have added carbon dioxide and other greenhouse gases to the atmosphere much faster than natural processes can remove them. Children born today would need a tattoo with the number 409. In my lifetime we have increased the CO^2 concentrations nearly 100 parts per million. That concentration is now higher than it has been in at least hundreds of thousands, probably millions of years, if geologists are to be believed. And I believe the geologists.

The evidence is overwhelming and there is scientific consensus. Human behavior has changed the fundamental chemistry of the atmosphere resulting in changes in multiple global systems. Climate change deniers, including some in the current administration apparently, choose to ignore the science.

The other number I should have tattooed is 2.6 billion, the estimated size of the human population in my birth year. That number has nearly tripled and today stands at approximately 7.5 billion humans.

Concern about global population growth was a central tenet of the environmental movement of the 1970s, a time when I became aware of many of the issues that we continue to wrestle with today. There were famous fights among environmentalists about the significance of population growth, notably the one between Barry Commoner and Paul Ehrlich. Yet in the end, there was no question that there were limits to how many humans the planet could support without irreparable damage being done. When did we stop worrying about population growth?

The quality of the environment was, of course, not just a function of the numbers of humans. The fact is that more humans are living materially richer lives than at any time in our species history. And few humans in history have lived as well as the majority of Americans did over the past 65 years. We have been among the richest of the rich.

My two numbers are inextricably linked. The increase in CO^2 concentrations from 312 to 409 parts per million in the atmosphere is a direct result of an extra 4.9 billion people, many living longer and more prosperous lives.

So the obvious place for me to have my tattoos is on my forehead:

312 — 2,600,000,000

Then, every time I look in the mirror I will be reminded of my role in creating global change. And the obvious place for your tattoo is your forehead. Then every time you and I see each other we will be reminded of our collective responsibility for changing the climate and other planetary processes.

Then we will remember that we got into this predicament together and it is only by working together that we fix the problems we have created. I had argued in an earlier blog that the Paris climate agreement was likely to fail. For me, the problem was that it did not go far enough to address the underlying forces creating global change. I do not believe walking away from global agreements is the answer.

No nation is more responsible for global change than we are and there is no more important ethical obligation facing us, collectively and individually, than accepting this responsibility.

So what numbers go on your forehead?

What It Means When Humans Impoverish Nature

June 16, 2017

By Mark W. Anderson

In Henry Beston's eloquent classic of nature writing, The Outermost House, he worried about the decline in birds he was seeing on the Great Beach of Cape Cod. Even in the 1920s when he spent his year on the Beach, humans were adversely impacting birds and other parts of nature. Beston identified a "new" danger: "An irreducible residue of crude oil, called by refiners "slop," remains in stills after oil distillation, and this is pumped into southbound tankers and emptied far off shore. The wretched pollution floats over large areas, and the birds alight in it and get it on their feathers. They inevitably die."

We might congratulate ourselves for stopping the intentional dumping of oil refinery byproducts at sea. But human impacts on birds remain. Now such impacts are subtler and much more insidious. Vast quantities of plastics end up in the oceans every year, strangling birds and other marine life. Most plastics are not dumped intentionally in the oceans, yet they end there none the less. Each of us is responsible for some of this mountain of waste, measured in many tons a year.

Ocean shipping, bringing us the products that fill our stores and on-line shopping carts, strikes marine mammals and moves invasive species around the globe. Increasingly offshore energy projects disrupt migratory birds in their seasonal journeys around the globe. Runoff from highways and parking lots and overflow from storm drains and sewerage systems makes their way downstream and into the oceans, contaminating beaches and wetlands along the way. Nutrients in this runoff change the marine environment, usually in ways that disrupt nature.

We harvest marine organisms to eat, to feed aquaculture fish, and as bait to catch the crustaceans we eat. All of this takes from the oceans food that would otherwise nourish other animals. The herring we catch and use to bait lobster traps is not available for other fish or birds to eat.

Most insidious of all is, of course, climate change. Nowhere was this clearer to me than in a recent episode of Bob Duchesne's radio show, Wild Maine. The weekly radio show hosted by Maine Legislator and birder extraordinaire Duchesne is always provocative. This one, Bad News for Maine's Oceans, is must-listen radio for Maine citizens. The danger now threatening Maine's birds at sea is not the intentionally spilled oil residue that Beston saw, it is the cumulative effect of human-induced changes in the

planet's climate systems. Same plot, new characters. Humans are now the major drivers of natural change, including declining bird life – welcome to the Anthropocene.

There are different responses to the changes in nature wrought by our behaviors. The all-too-common response in the 21st Century is, "whatever…" The growing indifference to the consequences of our actions is disappointing, to say the least. Too many people are so disconnected from nature that they are unaware of what is being lost, a phenomenon that Beston noted nearly a century ago. Today's disconnect is enhanced by electronic communications, artificial "intelligence," and our growing reliance on machines to structure our lives.

Another response is to care about damage to our natural systems for purely utilitarian reasons. This is environmental concern in the tradition of Gifford Pinchot, the so-called father of American conservation. For these people, nature is seen as support for human consumption, so the loss of birds in the gulf of Maine is a loss of duck hunting opportunities. A typical response of utilitarians to environmental harm is to call for better management. So, for example, wildlife agencies manage game species and their habitat so that more of the desired species are available for "harvest." In Maine, we manage coyote (that is encourage hunting coyotes) because of the belief that coyotes reduce the number of deer for hunters. My questions about this approach were part of any earlier blog on wildlife management which I subsequently discussed with Bob Duchesne on his radio show.

A utilitarian approach to declines in species diversity and other natural disruptions caused by humans is the "indicator" concern. This is the so-called "canary in the coal mine" use of species. If certain "indicator species" are in decline, like song birds or sea birds, this is an indicator of the unhealthiness of the environment. Since the birds may be more sensitive than we are to environmental disruptions, their decline shows that if we are not careful we are next. Coal miners used caged canaries to indicate dangerous air quality. We can use declines in eiders to identify threats to our wellbeing from human-induced environmental disruptions in the oceans.

Finally, and most fundamentally, the declines in a given species should be a concern simply because that species has intrinsic value, value without reference to any aspect of human existence. As I pointed out in an early blog, Open Season on Chickadees, feral cats and cats whose owners let them roam outside kill hundreds of millions, maybe a billion, song birds each year. Why is it that we get to choose that a species we domesticated is more important than wild birds? The ethics of concern for nature as something intrinsically valuable are rooted in humility. It says that we humans see ourselves as part of the natural world, not above it. Our existence is not the point of nature and our comfort and wellbeing are not the ends for which nature exists. So when species decline, habitats are destroyed, oil is spilled, or the atmosphere is soiled

at our hands, the reason we should be concerned is simply put: It is the wrong thing to do.

In the spirit of this ethic, the least that we can do is to set aside some parts of the natural world where we do not tread. We have the power to destroy. The question is whether we also have the humility, wisdom, and insight to get out of the way.

What's Wrong With This Story?

July 2, 2017

By Mark W. Anderson

The narrative goes something like this:

The Maine Legislature and Governor require all Maine schools to provide certain "essential" services. This is out of a sense of fairness for all Maine school children, wherever they may live. Everyone is entitled to a minimum education.

Many localities struggle to pay the costs of these minimum services from local property taxes.

The people vote through a citizens' initiative and tell the Legislature and Governor that the State shall pay 55% of the costs of these essential services.

The Legislature and Governor choose not to do so, because paying this much is hard. It would mean either higher taxes or cuts in other worthy programs.

The people say OK, if you won't figure out how to do this, we will tell you. Maine citizens pass another initiative. The voters approve additional State funding for schools through an tax on the income over $200,000 of Maine's wealthiest citizens.

The Governor and Republicans in the Legislature refuse any budget that includes this tax on the wealthy. They believe that they are smarter than the people of Maine.

Democrats capitulate on the income tax surcharge in order to keep Maine government running. They support a compromise budget.

Republicans in the House of Representatives and the Governor decide to shut down the people's government anyway.

What's wrong with this story?

Pennies for Puffins

July 12, 2017
By Mark W. Anderson

In the last two decades of the 20th Century, environmental economists made tremendous strides in developing techniques to measure economic values when there are no markets (they call these "non-market valuation"). These efforts grew out of the criticism of the environmental statutes adopted in the 1970s like the Clean Air Act or the Endangered Species Act. Policy debates often focused on the value of environmental protection versus the effects of environmental laws on jobs and incomes. If environmental protection could be expressed in dollar terms, it could be compared more easily to the value of other goods and services produced by market economies like ours in the U.S. The argument was that calculating "non-market value" of the environment would avoid comparing "apples and oranges" in debates about environmental policy.

By the turn of the Century the logical extension of this thinking was to place dollar values on the services provided to humans by natural ecosystems. In this approach, nature is valuable because it provides services to humans that would otherwise have to be engineered by humans and paid for. So it was cheaper for New York City to provide clean water by setting aside land in the watershed north of the city in conservation than it would be to build water treatment plants.

In a recent issue of the Cornell Lab of Ornithology's Living Bird magazine an article on the valuation of birds states the case for valuation: "…talking about the ecological and economic benefits of birds raises peoples' interest and support for bird conservation." If you know the dollar value of services provided by Puffins, Pewees, and Peregrines, than you will be more likely to support environmental groups that help preserve these birds and their habitats. The problem is that this may not be so. Ascribing dollar values to ecosystem services might not build support for the protection of the natural environment.

I expressed some of my skepticism of the ecosystem service valuation idea in a blog, Putting a Price on Nature. New research from some of my UMaine colleagues reinforces my concern for relying on monetary arguments to justify environmental protection policies. Sandra Goff (PhD from UMaine and now on the faculty of Skidmore College), along with Tim Waring and Caroline Noblet (faculty in the School of Economics at UMaine), just published in the prestigious journal *Ecological Economics* "Does Pricing Nature Reduce Monetary Support for Conservation?: Evidence from Donation Behavior in an Online Experiment,".

In a carefully designed experiment, these scientists tested how using dollar terms to describe what services nature provides to humans affects individuals' willingness to make donations to groups involved in preserving nature (Sierra Club, The Nature

Conservancy, and the U.S. National Park Service). It turns out that providing people with information about the dollar values of ecosystem services results in those people donating less to natural resource conservation.

In conventional economic theory expressing the value of nature in monetary terms should make people more, not less supportive of conservation. The authors explore theories from economic psychology (ideas called motivation crowding and monetary priming) to help explain why people did not behave in the expected way.

My own bias is that many, if not most people understand that nature is different from toothpaste or cell phone subscriptions. Using the metric that helps us navigate the mundane aspects of everyday life – money – is not appropriate for expressing the importance of nature. In the language of some critics of ecosystem service valuation, this approach commodifies nature, making it of the same significance as bottles of wine or buckets of kitty litter.

Expressing the values of nature in dollar terms crowds out the more profoundly important aspects of nature to our lives. Puffins are more than the pennies they save for us through the ecosystem services they provide. They are worth saving in their own right.

When Did We Stop Worrying About Population Growth?

August 3, 2017

By Mark W. Anderson

In the environmental debates of the 1970s, one common name hurled at environmentalists was to call them "neo-Malthusians." This dismissive insult was meant to imply that the concern for environmental issues was nothing more than the contemporary application of the failed analysis of Thomas Malthus (1766-1834). Malthus was a classical economist in the tradition of Adam Smith and David Ricardo. He argued that human population naturally grows faster than the growth of food production, leading to what came to be known as Malthusian population controls – disease, famine, and war. For Malthus, the desirable alternative was restraint on reproduction.

Many environmentalists in the 1960s and 1970s were concerned about how the rapid population growth in the post-World War II era was straining human ability to produce for itself. Nature imposed limits. When it was published in 1968, Paul and Anne Ehrlich's The Population Bomb predicted global famine due to rapid population growth. Much before this famous book, William Vogt's 1948 Road to Survival warned that rapid population growth would make us feel "scarcity's damp breath."

Vogt, the Ehrlich's, and others like Donella Meadows (one of the co-authors of The Limits to Growth) were labeled neo-Malthusians. Their critics now crow that food supply has kept up with rapid population growth since the 1970s. We did not see widespread famine in the 1980s and when famines did occur it was typically due to civil war and other forms of violence. Certainly, inadequate nutrition remains a problem in many parts of the world, but it is not because we are unable to produce enough food to feed everyone fully. Indeed many more people on the planet today are overfed than ever before. Malnutrition is a matter of income inequality, not food production capacity as was thought by many environmentalists.

So, you might say, the critics were right. Vogt, Ehrlich, Meadows, et al. were scare mongers. Human ingenuity triumphed and population growth is not a concern. **I think that is the wrong lesson to draw from this story.** While the world's population has more than doubled since The Population Bomb was published in 1968 without a global famine or pestilence, that does not mean we can remain complacent about the implications of continued global population growth.

Year	World Population	Yearly Change	Net Change	Density (P/Km²)	Urban Pop	Urban Pop %
2017	**7,515,284,153**	1.11 %	82,620,878	58	4,110,778,369	55 %
2016	**7,432,663,275**	1.13 %	83,191,176	57	4,034,193,153	54 %
2015	**7,349,472,099**	1.15 %	83,686,153	57	3,957,285,013	54 %
2014	**7,265,785,946**	1.17 %	84,070,807	56	3,880,128,255	53 %
2013	**7,181,715,139**	1.19 %	84,214,686	55	3,802,824,481	53 %
2012	**7,097,500,453**	1.2 %	84,073,401	55	3,725,502,442	52 %
2011	**7,013,427,052**	1.21 %	83,702,009	54	3,648,252,270	52 %
2010	**6,929,725,043**	1.22 %	83,245,522	53	3,571,272,167	52 %
2009	**6,846,479,521**	1.22 %	82,746,642	53	3,494,944,744	51 %
2008	**6,763,732,879**	1.23 %	82,125,559	52	3,419,420,251	51 %
2007	**6,681,607,320**	1.23 %	81,387,073	51	3,344,752,515	50 %

Source: http://www.worldometers.info/world-population/world-population-by-year/

The world's population is estimated now to be over 7.5 billion people. And the human population continues to grow by over **80 million** people a year. To understand that figure, imagine a new United States added to humanity every four years. Part of the complacency about population growth is due to the fact that most estimates now suggest that we are adding a million or two fewer people to the size of humanity than we were when growth peaked a few years ago. But still, there are over 80 million more humans each and every year. This should be a source of concern and a matter for public policy in this country.

But if we can feed everyone adequately on the planet (hence the neo-Malthusians were wrong), why is a growing population a problem? First, we need to acknowledge why we are able to feed everyone with modern agriculture. This is due to the simple fact that we have remade global agriculture in the image of U.S. and European industrial agriculture. And this has been done because of the miracle of fossil fuels — petroleum and natural gas — which are at the root of every technology that allows food production to keep up with population growth. Monoculture, synthetic fertilizers, irrigation, mechanization, and chemical pest management are all built on a foundation of increasing use of fossil fuel inputs to produce more food per acre of land and per hour of labor. Essentially, we are supplementing solar energy captured by plants through photosynthesis with increasing quantities of fossil fuels. Thought about in another way, we would never be able to feed everyone on the planet using organic production methods. So what's the problem with 80 million more humans every year?

The problem is that we are straining to the breaking point a host of planetary systems upon which human life depends. Humans have disrupted climate systems, dramatically increased the rate of extinction of other species, and fundamentally changed important biogeochemical cycles. We have all heard about climate change due to disruption of the carbon cycle, but some scientists believe we have changed the nitrogen and phosphorous cycles even more dramatically, particularly due to the industrialized agriculture that has held off mass starvation. The challenge is that in most of these areas, the messages that we get about our disruption of nature (feedbacks) are delayed or masked before we notice our effects. The time between our emissions of carbon dioxide and changes in global climate systems is measured in years and decades. Similar delays are seen in the impending crisis in extinction of species due to more humans on the planet. We are literally crowding out a host of plants and animals as more and more people take up more and more space to support our increasingly affluent lives.

Rising population numbers have political and social effects as well. The most obvious example is the growing global humanitarian crisis due to migration. As more people are unable to support themselves where human numbers have exceeded the carrying capacity of the landscape they try to move where life is better. You and I would also. In a very real sense, the growing migration issue around the planet suggests that the neo-Malthusians were right all along. Whether it be Central Americans trying to

reach the U.S. or North Africans seeking better lives in the E.U., migration pressures are tightly coupled with population growth.

If we are truly concerned about the wellbeing of the planet and of human society, we should return to engagement on the issue of population growth. It is not an easy challenge to deal with; yet it will be impossible to address the issue if we continue to pretend that the problem has gone away.

A Health Care System Rent Apart

August 16, 2017

By Mark W. Anderson

Republicans in Congress failed to fulfill their promise to repeal the Affordable Care Act (ACA), called by them "Obamacare." The fight over the fate of the ACA reflected a narrow ideological battle over health insurance in the United States. At issue were different world views on who should provide health insurance (private firms, public programs, or both), who should pay for health insurance, what health care costs insurance should cover, and who should get insurance. Many Republicans characterized this as an ideological fight between advocates for socialism (the ACA) and free market capitalism (repeal of the ACA).

Unfortunately this ideological crusade to repeal the ACA missed the fundamental issue. Problems in so-called insurance markets are just a small part of the failures in the larger system of health care. Making these insurance markets competitive is a false promise.

The health care system is far from a competitive marketplace, which is described by economists as a market where there are many buyers, many sellers, homogeneous products or services traded, low barriers to entrance, and good information about the attributes of the goods and services being traded. The health care market does not come close to any of these characteristics except that there are many buyers (over 300 million Americans).

As I pointed out in an earlier blog on health care, the American health system fails dramatically in comparison to other rich countries in the world. We dedicate much more of our national income to health care costs than many rich countries. We provide health coverage (insurance, if you will) to a smaller portion of our population than others do. And we Americans live shorter, less healthy lives.

One reason for this system in tatters is the role rent seeking played in the development of health care policy. (See my earlier blog on this concept of rent seeking.) Princeton economist and Nobel Laureate Sir Angus Deaton explains well how rent seeking relates to our health care system:

"The United States spends 18% of GDP on health care yet has one of the lowest life expectancies of any rich country. If spending were reduced to 12% of GDP, in line with

France, Germany, or Switzerland, a trillion dollars—$8,000 for every family—could be transferred out of unproductive activities and could supplement median earnings, the stagnation of which owes much to rising health-care costs. Much of that trillion dollars goes to enrich the owners and executives of drugs companies, device manufacturers and relentlessly consolidating hospitals. This rent-seeking is supported by an army of lobbyists: there are more than twice as many lobbyists for the pharmaceutical and health-products industry than there are Congressmen. All of this works to keep prices high, to force the government to buy any drug approved by the Food and Drug Administration, and to fend off the creation of an evaluative agency like Britain's NICE.

"Perhaps the most egregious case today is America's opioid epidemic, which in 2015 killed 16,000 people from overdoses of prescription drugs, in essence legalised heroin sold as painkillers. The producers of these drugs have made billions of dollars in profits."*

There are a lot of individual changes related to rent seeking I would make in the health care system to make it work better. For one example, we could allow the Federal government to negotiate with drug companies over the costs of drugs provided under Medicare. Such negotiations were prohibited when Congress approved and President Bush signed the expansion of Medicare known as "Part D." Or we might once again prohibit drug companies from advertising prescription pharmaceuticals to the public, which has been shown to lead to increased unnecessary use of certain drugs.

But such policies are examples of insignificant changes if we do not face up to the fundamental question that Congress is avoiding. Why do we pay so much for and get so little from our health care system?

Part of the answer to this vexing question is that every time a change is proposed we all first ask, how is this going to affect me? What am I going to lose if we put a new system in place? Consumers, drug companies, doctors, hospitals, nurses, and every other group that is part of this system have a stake. How do we transcend this natural tendency to concern ourselves only with ourselves? Like the drug companies Deaton describes, we are all rent seekers in the politics of health care. We all want to get more and pay less.

There is an alternative mindset. I have written before about the idea from American philosopher John Rawls who developed a theory of justice. A Rawlsian approach to health care reform would have us ask not what the system would do for us personally. Rather the question would be, what should health care look like if I were ignorant of my personal position? What if I did not know whether I am a doctor or a patient? Rich or poor? Young or old? Male or female? Employed or disabled? Robust or with chronic health problems? Living in an urban or rural setting? A nurse or a drug company executive? By pretending to be ignorant of our own particular circumstance,

we could be deciding what health care system works better for all people. We would then weigh the risks and benefits of a new system regardless of the particular circumstance in which we find ourselves. This mindset recognizes that we are all in this together (one nation, indivisible?).

It is not going to be easy to make a better health care system because we are starting from a situation that is rent to pieces. Ideological debates over insurance markets are not going to address the fundamental problems we have. There are lots of examples from other countries of what works better, what provides better health at dramatically lower costs. Let's demand our members of Congress do for us the hard work of making the system better. Let's expect a system that works for us whatever our place in society.

*Deaton, Angus. (2017). A Question of Inequality: IF the State Got Out of the Redistribution Business. *The Economist*, July 15, 2017. p. 13.

The Lesson for Maine From Hurricane Harvey

September 7, 2017

The pain and suffering of the residents of coastal Texas and Louisiana fill us all with feelings of empathy and concern for their future. Most of us can only imagine losing all of our physical possessions and having to start over again.

Hurricane Harvey brought an unprecedented rainfall event in U.S. weather history. So the obvious "lesson" piece I should write is about human-induced climate change. Alone, this storm says little about climate change. Coupled with all the other climate data and events it says volumes. Climate models predict that one central aspect of our future climate is more intense precipitation from more storms. Such a lesson piece would have pointed out the irony of devastation from climate change to a city built on the back of the hydrocarbon-based economy. But I am resisting that temptation.

For me the compelling lesson from Hurricane Harvey's destruction in Houston is the failure of "market-based land development" as an alternative to effective public land use regulation. In my graduate studies in land use policy at UMaine in the late 1970s, I encountered for the first time the example of Houston to justify a land development policy without zoning and other restrictive land use regulation. The idea was simple. The land development market would create incentives for people to use their land wisely and disincentives to develop in places that would be inappropriate. Houston continues to proudly proclaim its "no zoning" policy.

The idea of market-based land development is similar to the ideology of financial market deregulation advocates 20 years ago. They argued that financial markets worked so well that bad actors would be penalized by the market mechanisms. Hence, financial market regulation was unnecessary. The Great Recession showed the fallacy of this approach.

In the case of both land and financial markets, we witness that markets are often good at identifying some short term costs and benefits of activities but are very bad at accounting for long term effects. When the costs of shortsighted decisions arrive, the beneficiaries (Houston developers or financial market manipulators) are usually long gone from the scene. So while several large financial institutions have been penalized for criminal behaviors in the financial market crisis, no individual was held to account. Rather, the executives responsible for the illegal behavior of firms earned

mega bonuses and rode off into the sunset. The lack of effective zoning in Houston reflects a similar failed ideology.

Central to any effective land use regulation is an initial survey of the land, water, plant, and animal resources of a community or region. This natural resource assessment provides a foundation for identifying the types of land uses that can and cannot be supported over the long run. Environmental threats like floods, earthquakes, and fires are identified. Land markets have no such biophysical starting point. Markets identify the behaviors of willing buyers and willing sellers, based on their limited knowledge of the landscape and their short time horizon for the use of the land. Few land owners can identify the 100-year flood risk for their properties. Most of us think, understandably, that what has happened in our life experiences is what is likely to happen in the future.

So, a market-based development policy may result in land use that is appropriate for the short-term but devastating in the long run. No land use regulation would have prevented incredible damage from this hurricane, but the damage would have been much less with effective regulation of the development market. Public interest needs to be a central tenet of our development policy. Had that been the case, fewer people would have lost everything in this devastating storm. You and I would not be facing the payment of what is estimated to be over $100 billion of Federal aid to help the region rebuild.

For us in Maine the lesson is clear. We need to remember that today's good weather and calm seas will not always prevail. The seas are rising and storms will be more intense in the future. We need to pursue zoning and other land use regulation that reasonably protects us in the likelihood of these future weather events.

Think about our obligation this way. Imagine you live in Maine fifty years from now and experience a hurricane like Harvey. Will you be grateful for or will you regret the decisions we make today about where and what development is allowed? Did we take a short-term approach and get as much development as possible as cheaply as possible? Or did we make reasoned decisions that took into account the impacts of our decisions today and into the future?

The mental exercise for thinking about the future in this way is called retrospective assessment. Look back in time and think about decisions that our predecessors made in the past. For which decisions do we feel regret and for which do we feel gratitude? By thinking about the past in this way we gain some insight into how future generations will respond to our decisions of today. Let me give you an example.

Union Station in Bangor was demolished as part of the Federal Urban Renewal programs of the 1960s. Many residents regret this loss of a landmark and we can imagine what a redevelopment of this structure might have done for the ambiance of the city had the building not been razed. What decisions today will our descendants regret in a similar manner?

By asking about our development in this way we literally invite the next generation and the one after that to sit at the table with us and decide together what serves us and them. Learning this lesson from Hurricane Harvey would bring some out of this devastating weather event.

Is the U.S. Economy One Big Ponzi Scheme?

September 24, 2017

By Mark W. Anderson

When I was teaching, I used to joke with students that my classes were particularly demanding because I wanted to be sure they would succeed in the real world so that they could pay for my Social Security checks. Economists are supposed to believe that self interest is the dominant human motivator.

I was only partly facetious. Social Security is a pay-as-you-go pension program, in the words of The Economist newspaper. Today's tax payers are paying for the income checks for today's recipients. We maintain the fiction that there is a "Social Security Trust Fund." That sounds like a place where your payroll taxes are deposited to be invested so that funds are there to pay your future benefits. In reality, this is an accounting device for the Federal government to issue IOUs, essentially borrowing from Social Security taxes to pay for the rest of current government expenses for which we are unwilling to tax ourselves to pay.

The scary reality is that this is just one manifestation of our whole economic system as a Ponzi scheme. It is predicated on the notion that we can borrow today to fund our wants and needs, with the expectation that the future will pay off those debts. While this is hard to do in our personal lives (lenders are aware of our individual mortality), it is easy to do for the overall economy. Like any good Ponzi scheme, we need to borrow from future payers just slowly enough to maintain the fiction of responsibility.

The most obvious place to see this is with the Federal government. Federal debt now is over $20 trillion, an unfathomable number. This amount is over 100% of our annual gross domestic product. In other words, were we to run the economy for a year to only pay off the Federal debt and pay for nothing else, we would not quite get that done in that year. On top of this Federal debt, households have private debt of nearly $4 trillion. So it is not just the government living beyond its means.

In the fiscal year that will finish at the end of the month, we will add over $400 billion to the Federal debt. The last time we ran a budget surplus was 2001, the final budget of the Clinton Administration. (There is certainly irony that Democrats are the Presidents who oversee fiscal restraint. The last time the Federal budget was close to balanced before the Clinton administration was in the Carter administration.)

The Clinton-era budget surpluses were ended by three events: the Bush tax cuts for high income earners, the expansion of Medicare to include a drug benefit (whose largest beneficiary was the pharmaceutical industry), and then the great recession triggered by the 2007 financial crisis. Deficits in recessions are called for by most economists, who see deficit spending as one tool for fighting down-turns in the business cycle. In these downturns, investments in public infrastructure stimulate a return to fuller employment. But where we are today in the business cycle with low unemployment and large, some would say unprecedented corporate profits we should be running budget surpluses and paying down our collective debt. Yet we just added to the deficit at the rate of $400 billion a year.

Of course, paying our way would require a combination of expenditure reductions and tax increases. It is so much easier just to borrow. Let the future pay.

Many economists justify borrowing by assuming that economic growth will mean more people with higher standards of living will populate that future. The idea is that they will gladly pay our debts because we left them better off than we are. This is sort of like me expecting my former students to gladly pay my social security income because I helped them develop the tools to be more productive than I was. And this worked in the seven decades after World War II. Both the numbers of Americans and the size of our economy grew meaning that a larger and wealthier population was able to imagine paying off the debts of former generations. Growth masks temporarily the eventual reckoning that will come.

Of course we did not pay those debts, rather we added to them. That is easier than raising taxes and reducing expenditures. The result has been that some segments of our society continue to get wealthier, largely on the backs of future Americans. The issues of income inequality and deficit spending are closely linked. Like in Ponzi schemes, those who act early and buy into the scheme profit at the expense of those who pay in later.

The so-called First Law of Economics applies here. **There is no such thing as a free lunch.** Like in any good Ponzi scheme payment is deferred to the future. Those who inherit our debts will regret our collective profligacy.

The Politicization of Sport and the Commercialization of Patriotism

October 14, 2017

By Mark W. Anderson

Some professional football players have taken to using their prominence as a platform to call for social action. These athletes protest during the national anthem before NFL games, an act by which they are bringing attention to the fact that the promise of America has not been fulfilled for everyone. "Liberty and justice for all," has, in fact, not been for all. The athletes, most of whom are persons of color, are criticized for politicizing sport and for a lack of patriotism. Both are unfounded.

Certainly the National Football League (NFL) was politicized well before players started their anthem protest. Team owners and the league have made aspects of the game political for years. However, it was only political messages of team owners that we saw. The conspicuous presence of New Jersey Governor Chris Christie in the owner's box of the Dallas Cowboys during a game was a political statement. The only question was whether Christie, who at the time was contemplating running for President, was bragging about being with Cowboy's owner Jerry Jones or *vice versa*.

More significantly, the NFL in recent years has exploited the U.S. armed services and veterans with increasingly garish pre-game demonstrations of military personnel, over-sized American flags, and flyovers of military aircraft. These were overtly political statements in the guise of patriotism.

But these displays were more than politics, they were integral to the league's business plan. Until it was made public that they were doing so, teams were charging the Department of Defense millions of dollars for these displays. Patriotism was just another revenue stream. The practice of charging for these displays was only ended because of the embarrassment for the league of public disclosure.

Faux patriotism was much deeper for the NFL. It is one strand of a larger strategy: use sex, violence, and flag waving to promote the sport. These are three sure-fire themes for making money in America. So it is not that players who demonstrate quietly during the playing of the National Anthem are acting unpatriotically. They are using the hollow patriotism of the teams as an opportunity for showing their concern for how our

country has failed to live up to its promise. To me that is more patriotic than using the flag to add to the financial coffers of some of the richest people in America. It is no honor to those who have served valiantly to have their service used to make wealthy men even wealthier.

This question of what constitute patriotism reminds me of the statement that Senator George Mitchell made to Oliver North as part of the Iran Contra hearings:

"I want to repeat that: in America, disagreement with the policies of the Government is not evidence of lack of patriotism. Indeed, it's the very fact that Americans can criticize their Government, openly and without fear of reprisal, that is the essence of our freedom and that will keep us free."

Using the moment when others celebrate what our country stands for to show how we still fall short of our ideals is not a lack of patriotism. It is part of the striving for better that will allow us to reach our greatness. It certainly does not dishonor those who fought for the freedom to make such a protest.

Now the NFL and its owners have found that the controversy around pre-game protests may be hurting its revenue. Some team owners, including Jerry Jones, have threatened that players who fail to stand and "honor the flag" will not be allowed to play for his team. This feels to me like an ante-bellum cotton plantation owner reminding "uppity slaves" who is the owner. His version of patriotism is the only one allowed.

Perhaps it is time to remove politics from sport and to stop using patriotism to sell our businesses.

Question 1: Rent Seeking Run Amok

October 19, 2017

By Mark W. Anderson

Mailboxes are flooded with direct mail fliers. The roadsides are littered with plastic signs. We are admonished to Vote Yes On Question 1 on November 7. This is one of the clearest examples of rent seeking behavior I have ever seen. It is text book quality.

Rent seeking occurs when an economic actor, in this case a casino developer, attempts to get the rules of the economy rigged in its favor. Most effective rent seeking is done by promising what appears to be a public benefit as the primary motivation for rules that favor one economic actor. If you are to believe the flyer that showed up in my mail box, Question 1 is designed to improve education, lower taxes, support veterans, and foster the harness racing industry. The only deserving groups that appear to be missing are orphans and lepers.

The Rent Seeking: What Question 1 does is allow one entity the right to build a casino with slot machines and table games in York County. Who is that entity? According to the language for the statute we are voting on from the Maine Secretary of State web page that casino developer is:

"…any entity that owned in 2003 at least 51% of an entity licensed to operate a commercial track in Penobscot County that conducted harness racing with pari-mutuel wagering on more than 25 days during calendar year 2002…"

Wouldn't it be more honest just to name "the entity"? Who is it to whom we are granting this monopoly? I'll just call it the rent seeker, the one offering a pot full of honey in return for its exclusive advantage.

The Honey Pot: The language in the proposed law that we will vote on in November outlines the beneficiaries, various groups that will receive a share of the "net revenues" from slot machines and table games. (Who gets to decide what costs are subtracted from gross revenues to calculate "net revenues?) The distribution is one percent here, three percent there, and so on. In classic rent seeking style these pots of money are meant to both create allies for the proposal among groups that might otherwise not care who gets to run a casino in York County. The goal of the honey pot is to create a sense in the larger community that this vote is not about a monopoly for a casino developer but is about furthering the common good. The shell group running the

campaign is called Progress for Maine. Who can be against creating progress, a common claim of rent seekers? And who are they?

Who We Are: This is the label for one of the pages on the ProgressForMaine.com web site. I naively thought I might find out who met the criteria for getting this York County casino monopoly by clicking on this. Not really — the page says:

"We are a coalition of businesses and individuals who want to promote economic prosperity throughout the state of Maine by building a gaming and entertainment venue that would contribute millions to our local economy."

A more forthright answer might have been the names of the developer and investors in "the entity" who is going to be the primary beneficiary from Question 1, that is, the rent seekers, the ones promising grand economic benefits for Maine.

Read the Economic Impact Study: That is what ProgressForMaine.com told me to do, so I did. I was struck that the study was cursory and misleading. It uses "projections" from the developer (who was that again?) for construction costs and operating revenues and then applies simple multipliers from standard regional economic models to project employment, income, and taxation impact estimates.

As an economist, two things jump out to me from this study. One is that there is no independent verification of whether the projections these impacts are based on are reasonable. We do not even know who made the projections. Second, and more significantly, the unstated assumption of this analysis is that these expenditures for gaming, dining, and lodging at some yet to be determined location in York County are all new expenditures.

Any regional economist will tell you that economic impacts from expenditures by Maine residents at a new facility are negligible. The assumption you must make in such an impact study is that expenditures by residents are diversions from other activities that would have happened elsewhere in the state. Money spent by residents at a new facility is assumed to be money that would otherwise have been spent on some other form of consumption in Maine. They do not increase overall economic activity.

So for the authors of this study to declare "the project would generate….", as they do time and again, is misleading at best. Likewise, any expenditure at this facility by non-residents would only count as increases in economic activity for Maine if these non-residents are making additional new visits to Maine for gambling at this facility. The only increase in Maine GDP that can come from such a facility is if it creates net new expenditures in the state. Clearly the claimed increases in tax collections and in Maine GDP are exaggerations. Since the authors do not even acknowledge the issue of residents versus non-residents in their study, I wonder about all of their

conclusions. Not surprisingly, there are no estimates of the monopoly profits estimated to go to the rent seekers.

Rent seeking has become increasingly common in the American economy. This contributes to a sense that the economy is rigged against those who are willing to play by the rules, rather than have those rules twisted to give unfair advantage in the guise of public good.

If a casino is a good idea for York County, let's have the Legislature decide who gets to build it, what its taxation rates should be, and where the proceeds of those taxes are to go. Do we want public policy established by some unnamed casino developer?

Disdain for the Future

December 27, 2017

By Mark W. Anderson

I first encountered the idea that the future was something one could study in 1971 from historian Roger Howell Jr. In one way or another, thinking about the future informed much that I have written about since, including here in Stirring the Pot.

In my way of thinking about the future, I believe there should be a bargain among the generations. Those of us in the present inherit a legacy from past generations which we should build upon to give the future a world as good as, and hopefully better than, that which we received.

Unfortunately, it looks increasingly like a time in human history when we exhibit disdain for the future, actively pursuing public and private behaviors that will clearly leave future generations worse off. This is a reflection of growing focus on doing what is good for us in the here and now, regardless of how it impoverishes the future. Environmental ethicist Bryan Norton has a term for this phenomenon: presentism. Presentism is making policy decisions predominately based on the implications for those alive now, disregarding the legacy of the past or the implications for the future.

I see this presentism in multiple realms.

The first example is the declining state of public infrastructure in the United States. Roads, bridges, electricity grids, water supplies, and sewer systems are all deteriorating faster than we repair and replace these gifts to us that prior generations sacrificed to build. We fail to raise gas taxes to pay for highway repairs, so individuals have more income for private consumption, free riding on the legacy of the past. We demand low power and water rates rather than pay the costs of public infrastructure. We refuse to fund the construction of resilient electricity infrastructure, instead buying private generators when the public systems fail, as they did in Maine in the December wind storm. Because we have failed to maintain public water supplies, we resort to drinking bottled water, adding to the global glut of plastics. In each case the future is made worse off so that we can consume more today.

A second example of presentism is seen in the denial of climate change in this country. Our focus on the present leads to abandonment of global efforts to protect future generations from sea level rise, devastating forest fires, droughts, and more severe weather events. We can think of the atmosphere as a sink that can hold the

effluent of current consumption. That capacity that we use today will not be available for the future to use. Think of the capacity of the atmosphere as a budget that modern industrialized societies have to spend over generations. We are literally leaving the future with less of that budget for them to use so that we can use more of it today. In fact, at the current trajectory, we are going to use that budget up, leaving the future impoverished and having to pay for our consumption.

We see disdain for the future in our approach to biodiversity. Conservation biologists believe we are in the midst of one of the great episodes of species extinction (sometimes called "The Sixth Extinction") and the cause is us. Humans now crowd out, destroy the habitat of, purposefully exterminate, and otherwise cause the extinction of plants and animals at rates far higher than pre-industrial humanity. We literally are leaving the future with a less diverse world than the one we inherited from the past.

Finally, the Trump tax plan is the most obvious example of literally living large in the present and asking the future to pay the costs. I suggested earlier in the year that the economy before the tax giveaway was in a precarious situation, reflecting the fact that we were living beyond our means. This tax plan will only add to the Federal deficit, by some credible estimates by as much as a trillion dollars. In essence we are asking future generations to pay our debts so that we can get modest tax cuts today for you and me and huge cuts for real estate developers and other wealthy Americans. Adding insult to injury, we will ask the future to pay for increasing the already high levels of income inequality in America.

Maine Senator Susan Collins complained about the press coverage she received around her support for the Trump tax plan. She said that press "ignored everything I've gotten…" in the Trump plan. What she ignored was how this new law provides crumbs for Mainers and feasts for the wealthy, while asking unborn generations to pick up the tab. This is disdain for the future.

My wish for the new year is that we begin to show gratitude for the legacy given us by former generations and build on that legacy to leave the future better off.

Rewilding Maine's Southern Beaches

April 4, 2018

By Mark W. Anderson

Before last weekend, the last time I had spent any time on Maine's Southern beaches was a field trip for a geology class in my first year of college (don't ask the year). Professor Hussey used the trip to immerse us in the patterns of coastal geology. In early April we spent a couple of days exploring from Ogunquit to Pine Point, looking for spring avian migrants (a Glossy Ibis at Scarborough Marsh was a treat to see), and enjoying Southern Maine foodie culture. After more than a couple of decades, I sensed the changes in this section of Maine.

The lasting memory of the trip was sadness at the way we have developed the beach-front property. Despite many acres of wetland and estuary landscapes preserved as part of the Rachel Carson Wildlife Refuge, many of the barrier beaches are filled with houses, lined up cheek to jowl, so that the beaches are almost invisible from the roadways. The few public access points at many of the beaches have no parking, and signs warn non-residents that "loading and unloading" are prohibited. Also remarkable were the busy construction crews building new homes and renovating others, including some that appear to have been damaged by Maine's March Nor'easters.

The landscape represents a failure in public policy – State and local government encouraging inappropriate development and using public dollars to subsidize continued use of dwellings in places increasingly vulnerable to storms and sea level rise generated by global change. Maine's mandatory shorelands zoning law has fallen short of its promise. The public costs of allowing continued development on these beaches are measured in dollar terms through subsidized flood insurance programs and infrastructure maintenance. The more important costs to my mind are in the reduced function of the natural coastal system due to the housing development of these beaches. The patchwork national wildlife refuge lands scattered behind the beach front development are woefully insufficient to restore these coastal ecosystems to their full function.

It is time to begin a long and expensive process of rewilding Maine's southern beaches.

Maine has an admirable history of public land acquisition over the past serveral decades, but little of this has happened in places like those I visited in York and Cumberland Counties. The Land for Maine's Future program has been criticized for spending a disproportionate share of its funds in Northern and Eastern Maine

for conservation lands in multiple use management. While I do not fully buy the argument, the criticism is that the program works primarily for people from Southern Maine. In this telling of the story, public dollars build outdoor playgrounds through conservation and at the same time reduce the economic opportunities for residents in the North and East. Certainly given the land price differences across the state, more conservation lands could be created per dollar spent outside of York and Cumberland Counties. Now would be a time to focus this and other programs on restoring Maine's beaches to their natural functions with the estuaries and wetlands behind them. To do this would require a two part program, both regulatory and economic.

First, given the prospect of higher sea levels and more intense storms, there are many coastal lands were we should restrict the right to rebuild after storms and the right to fortify structures and landscapes against future storms. This would be an appropriate exercise of the police powers (the obligation for government to protect the public health, safety, and general welfare) that undergird all of our land use regulation in Maine. Furthermore, as structures are damaged by storms or properties are put up for sale by current owners, we should use public funds like Land for Maine's Future to purchase those properties and restore the lots one by one to their natural habitats. I think of this as rewilding one tiny lot at a time.

Would it be expensive? Certainly. Would it take decades or longer to fully accomplish any meaningful rewilding? Of course. Would current owners feel aggrieved? Absolutely. Would it be worth it? Generations to come would thank us for our foresight and courage.

Conservation is easy when it involves donating to organizations to get a sticker on your car window and have forest lands set aside from development where few people go and land values are low. Conservation is hard when it involves removing development that generates high property tax payments and summer visitors who pay for ice cream cones and amusement park rides. This kind of conservation would be an expression of our commitment to begin restoring to nature what we have taken. It would be an acknowledgement that the natural world exists for something more that the gratification of human wants.

This idea of rewilding Maine's beaches is at odds with current thinking in mainstream conservation organizations as much as it is at odds with real estate devolopers. For example, Peter Kareiva, the Senior Science Advisor to The Nature Conservancy, has argued that nature has now been "domesticated" and our only choice is the find ways to manage the natural world to meet human needs. The focus is on "ecosystem service valuation," finding out how much nature is worth to humans through natural mechanisms to clean human effluents from the water or air. Rewilding Maine's beaches would be a statement that nature is still valuable for its own sake and is not something solely for human management. Accepting a domesticated nature is like saying that

dogs are now domesticated to serve human needs so wild canines like fox, coyote, or wolves are no longer need live wild lives.

Some day, perhaps a college geology class will visit these beaches as an example of how nature works when humans simply get out of the way.

Lessons from Japan for Imagining Sustainable De-growth

May 6, 2018

By Mark W. Anderson

Cornell University ecologist David Pimentel and colleagues estimated that the earth might be able to sustain only 2 billion people by the end of the fossil fuel era. There are about 7.5 billion humans on the planet right now. It seems counterintuitive that there is nearly 4 times the sustainable population now living on the planet. Does that not mean that Pimentel and others who reach similar conclusions about the human prospect must be wrong? Critics of Pimentel and others like him refer to them as a neo-Malthusians, those who cry wolf about the population problem ignoring the resilience of human society. How could we have more than the "sustainable" human population living on earth?

The analogy I use to think about this is something that happens on highways every day. Imagine your car's fuel efficiency is 30 miles to the gallon, you have exactly one gallon of gas in the tank, and 50 miles to the next gas station. Despite your predicament, you can still increase your speed; that will simply mean that you run out of gasoline even sooner. Likewise, we can have a larger population than the planet can support by using resources faster in the short run than they can be replenished in the long run. That does not change the reality that those resources will one day be depleted and fewer people will inhabit the earth. There is plenty of scientific evidence to suggest that is exactly what 21st Century humans are doing, living beyond the means of the planet.

Johan Rockstrom and a list of prominent scientists estimated the various biophysical "boundaries" beyond which humans could not push the planet. They concluded that several of these boundaries (think of them as planetary limits) are close or have already been surpassed. The most obvious potential constraint on human survival is global climate change, but Rockstrom's study shows that there are even more pressing concerns for us, including biodiversity loss and disruption of the global nitrogen cycle.

I don't know whether all this means that the sustainable size of the human population is 2 billion or a little more or a little less. I am convinced by the scientific evidence that continuing growth beyond 7.5 billion, coupled with the legitimate aspirations of many of

these people for a more prosperous life, is not sustainable. We are going to need to end the era of growth in human numbers and growth in high-consumption life styles that began with the Industrial Revolution at the end of the 18th Century. De-growth will happen. The only question is whether that will happen catastrophically (by disease, famine, war, extreme climate events, etc.) or by reasoned human effort, sustainable de-growth.

The difficulty is that it is hard to imagine de-growth since over the past 70 years the dominant paradigm for global society has been growth – growth in population, growth in economic activity, growth in consumption, growth in natural resource extraction. De-growth must be bad then. Think of the language we use: recession, downturn, slump, depression. Depressing, isn't it? What can we do to begin to imagine de-growth as something that would be challenging, but still good? How can we decouple that idea of growth from human wellbeing? Is there a future we can imagine where de-growth is good, uplifting, something we could strive for?

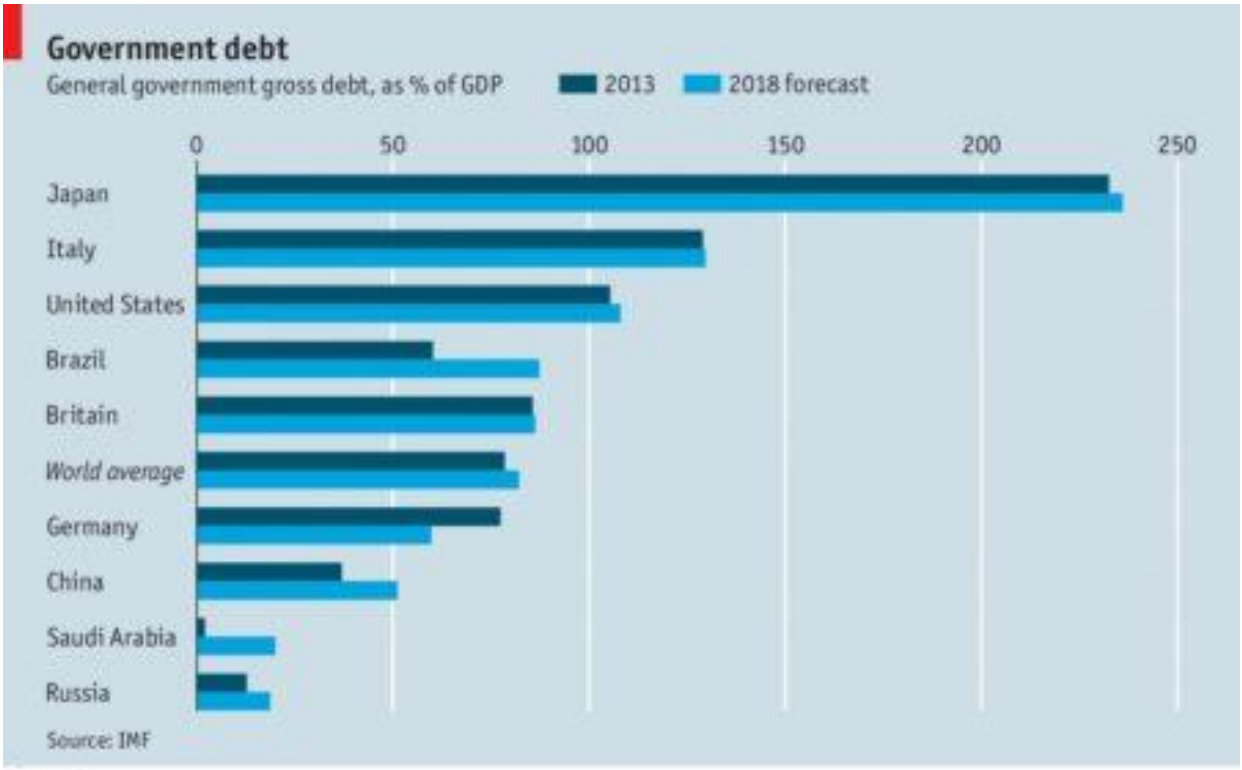
Economic theory provides little help in imagining a sustainable de-growth. Post-World War II economics is based on the premise that human wellbeing is a function of consumption. More consumption results in more wellbeing. Since economists are loath to urge redistribution of wealth and income, the only way to get more consumption is economic growth. The saying goes, "a rising tide lifts all boats." And that worked for some humans as long as we were not pushing up against the biophysical boundaries of the planet.

Imagining the future as something different from what we have experienced is not easy. Fred Polak, in his classic book The Image of the Future, suggested that imagination is a first step to making difficult social change. A good way to imagine a de-growth future is to look for places on the planet where the prospect of de-growth is nearer. Japan is one such place that can provide both exemplars and cautionary tales about a future where both the number of humans and per capita consumption decline. The Japanese case shows both opportunities and risks.

The Japanese case does not give us a full-fledged theory of de-growth and it is not really an example of intentional de-growth at all. But circumstances in Japan give us some hints about how we might go about de-growth without catastophe. Since Japanese culture does not welcome significant immigration, the declining birth rates of modern industrial societies mean that Japan is now facing population decline. Japan's total fertility rate is 1.46, already well below what is considered "replacement" fertility of 2.1. Japan's population is shrinking and growing older. Two examples of what this might mean for de-growth illustrate how we can use cases like Japan to imagine our own future.

First, Japan is experiencing a depopulation of rural communities as it undergoes demographic change. Not only are there fewer young people, but more of those young people are moving to cities. The result is that rural homes are being abandoned and rural communities are shrinking. A common strategy for dealing with rural decline in industrialized societies is government programming for rural economic development. An alternative suggested by the Japanese case is to use these abandoned properties as a starting point for rewilding, the process of removing human domination of the landscape and allowing it to return to natural processes. (See my blog post: Wild Lands: The Missing Piece in Maine's Land Conservation Mosaic) De-growth is an opportunity to reduce the human foot print on the planet — such a reduction is inherent to the de-growth idea.

Japan also provides a good example of what not to do as part of sustainable de-growth. Japan's government debt as a percentage of Gross Domestic Product is now well over 200% and growing. The premise of such a debt is that the future will experience economic growth and future generations will be able to pay that debt from increasing future economic activity. De-growth assumes that economies will shrink from both lower populations and reduced consumption of goods and services (wellbeing will come more from intangibles than from ever more consumption). So sustainable de-growth will be preceded by the present paying for its own consumption instead of assuming that we can borrow today and the future will pay the costs. (See my blog post: Disdain for the Future)



So the United States needs to heed the warning of the Japanese case. We now have a Federal government debt of over 100% of Gross Domestic Product and it is growing because of last year's income tax cuts. This invites de-growth of the catastrophic sort, and that will be truly depressing. Sustainable de-growth will require as a first step that the present generation live within its financial means and reduce the burden of debt we leave to the future.

The Japanese case only hints at how sustainable de-growth might happen. We are far from a full-fledged theory of de-growth economics. The prospect to strive for is a world of fewer humans, consuming less, and leading fuller, richer lives. Just imagine.

What I Would Like to Hear from Maine's Candidates for Governor

May 16, 2018

By Mark W. Anderson

I have listened now to all the candidates for Governor in Maine. There are some I could happily vote for and some others scare the bejesus out of me. But among all the candidates, there is a notable lack of vision for Maine. There are lists of "where I am on the issues." There is an abundance of mean spiritedness, like the thinly veiled boasts that "I wasn't a welfare cheat." And there is a lot of reaction to current events. Everyone has to have a policy prescription on the opioid crisis, and the policies range from better mental health services to a border wall in Kittery to keep those evil people to our South from bringing drugs in and tempting Mainers.

Where is the vision for what we want Maine to become in the future? What are our goals for the state? What do we want Maine to look like? Do we want to become another Massachusetts or New Hampshire, or is there something different in store for us? A vision is something more than campaign platitudes like good jobs, less regulation, or being tougher on crime. A vision appeals to our better angels to help us think about an ideal future that we know we cannot achieve but we can strive toward.

And really, I don't want the candidate's vision. I want a leader in the Blaine House who will help us work together as Mainers to figure out where we want to go and how to get there. We tried this once in the 1970s, the so-called Commission on Maine's Future. Now it is time we tried it again. Doing so will yield something very different from that process of forty years ago.

The idea is simple. We ask a cross-section of Maine citizens – young and old; Republican, Democrat, and unaffiliated; rich and poor; opinion leaders and every day folk like you and me – to serve on a commission. We have the members travel the state and use a structured format to listen to what people aspire to for themselves and this state. The commission would consult experts to understand what the constraints and opportunities are for Maine people. What are the problems we are going to face that we have not thought of yet? What are the realistic opportunities for us that we might want to make happen? We are not going to host Amazon HQ2, so what are the things we can hope to achieve?

The goal is not to come to consensus. That is not possible. Rather the goal is to find a vision for our future that many Mainers can rally around.

I don't want a Governor who will tell me what our direction will be, nor do I want a Governor who is reacting to last year's problems and disputes in Augusta. I don't want a candidate who divides Mainers into issue groups and tries to tick off enough policy boxes to attract enough voters to win the election. Leadership is the art of working with the people to chart a course together. Any takers?

Time for the State of Maine to Get Out of the Alcohol Business

June 10, 2018

By Mark W. Anderson

Not that long ago the purchase of many types of alcoholic beverages in Maine required a visit to a State-run liquor store. This was rooted in the 21st Amendment to the U.S. Constitution which ended the Prohibition era in 1933 and allowed states to regulate importation of liquor. But no longer, Maine got out of the liquor business, right? Not exactly.

The business of alcoholic beverage sale in Maine is governed by its own title in Maine Revised Statutes, Title 28-A Liquor, which runs a good 211 pages. Much of this law and the regulations that flow from it cover the business of alcohol import, distribution, and sales. The statute reflects the phenomenon of rent seeking behavior, a common theme for "Stirring the Pot." Rent seeking behavior happens when businesses or individuals seek to have government create economic advantages specifically for them in the guise of serving the public interest.

There are three legitimate government interests in the distribution and sale of alcohol. First is to determine who should be able to buy and consume alcoholic beverages and to enforce those rules, i.e. control underage drinking in Maine. Second is to collect tax revenues on the sale and consumption of alcohol. "Sin taxes," like those on cigarettes and alcoholic beverages, are a popular source of government funding. This is under the assumption that those who engage in "bad behavior" are going to complain less about paying the higher tax. Third is to provide a means to ameliorate the social ills caused by excess alcohol consumption.

Effective rent seeking behavior creates the impression that a given law or regulation serves one of these public interests while creating an economic advantage for specific firms. You can see rent seeking best by looking for distortions in the market.

It is illegal to "import" liquor into Maine. Virtually all of Chapter 83 (Prohibited Acts in General) in Title 28-A is dedicated to this subject. Unlike almost all other business activity between the states, the Interstate Commerce Clause of the U.S. Constitution (see Article 1, Section 8) does not apply to alcoholic beverages. The State of Maine cannot regulate your importation from New Hampshire of books, cars, new socks and

underwear, or peanut butter. But it can make it illegal for you to buy alcohol from the New Hampshire liquor store. It can make it illegal for you to join the Wall Street Journal wine club or The Beer of the Month Club (Father's Day sale going on now!). One of the major political concessions to the States for getting the 21st Amendment ratified was the stipulation that States could regulate importation of "intoxicating liquors."

The result for Maine and many other states was rent seeking, various firms working to craft vast pages of statutory language on who can and cannot sell alcoholic beverages and under what conditions. As a result, Maine consumers pay higher prices and have less choice. This is obvious in the distribution and pricing of spirits in Maine. There is one government sanctioned provider in Maine, Maine Spirits "The Exclusive Wholesale Supplier of Liquor for the State of Maine."

Maine Spirits boasts that the price you pay for liquors is the same anywhere in Maine. This is one sure sign of monopoly power. So even though the costs of distributing and selling any retail product like alcoholic beverages are going to vary dramatically in a state like Maine, monopolists extract monopoly profits by hiding these cost differences with homogeneous pricing. Some people are paying much more than the true costs of serving them, while others pay less. The monopolist earns greater profits than it would in a competitive market, retailers (agency liquor stores) are prohibited from setting their own mark ups, and consumers pay more.

Title 28-A pays lip service to the legitimate public interests in the regulation of alcoholic beverages. But what most of its more than 200 pages does is pick winners and losers in the market under the guise of the public interest. And the winners will fight long and hard to keep it that way. It is time for Maine to get out of this business.

Cheers!

Shame on US

June 16, 2018

By Mark W. Anderson

The third post for Stirring the Pot in August 2015 was titled Class Warfare and dealt with the problem of inequality in the United States. It is an issue that I have returned to several times since. Inequality continues to erode the social fabric of this nation and the situation grows worse with each passing year. The reality of this was brought home to me with the release in May by the United Nations (U.N.) of the "Report of the Special Rapporteur on extreme poverty and human rights on his mission to the United States of America."

Americans see themselves as champions for human rights. Eleanor Roosevelt played a central role in the writing of the original United Nations Universal Declaration of Human Rights in 1948. Sometimes we speak out as a nation on human rights in light of our geopolitical interests. So we condemn the human rights abuses in Iran, an "enemy" of the U.S., while we ignore similar issues in Saudi Arabia, an "ally." Other times we champion human rights without regard to global political calculus. But Americans almost always bridle at the suggestion from other countries that we too have human rights issues to address. We see ourselves, after all, as the "land of the free and home of the brave" with "liberty and justice for all." This new U.N. report challenges our self image.

Courtesy Franklin D. Roosevelt Library

Eleanor Roosevelt and the UDHR in Spanish, 1949

The report was prepared by a Special Rapporteur, Philip Alston, an Australian by birth who is currently a professor of International Law at the New York University School of Law. This is part of an ongoing program of country visits by U.N. Human Rights Council "…to report to the Council on the extent to which the Government's policies and programmes relating to extreme poverty are consistent with its human rights

obligations…" So while the reality of growing inequality and poverty in the U.S. is not new, placing these issues in the context of international norms of human rights gives them additional salience. The U.N. report is sobering.

Our self-image is that we are the strongest, wealthiest, and most dynamic country in world. The report details a darker side to our nation. In the U.S.:

- "About 40 million (Americans) live in poverty, 18.5 million in extreme poverty, and 5.3 million live in Third World conditions of absolute poverty."
- …we have "the highest youth poverty rate in the Organization for Economic Cooperation and Development (OECD)" and "the highest infant mortality rates among comparable OECD states."
- …we live "shorter and sicker lives compared to those living in all other rich democracies…"
- we have "the world's highest incarceration rate…"
- we have "the highest obesity rates in the developed world."
- and "the highest rate of income inequality among Western countries…"

A common response to this litany of social and economic ills is: yes, but America is the "land of opportunity." This is another common myth—that is, our society may be increasingly unequal but hard work and creativity will be rewarded with upward mobility. The reality is that "the United States now has one of the lowest rates of intergenerational social mobility of any of the rich countries." Being born into a wealthy household is, more than ever, the best predictor of economic success in America. Children of the well off go to better schools, have larger vocabularies, travel more, and go more often to selective colleges and universities. These and other advantages pave the way to a place in the upper classes, while everyone else is kept out.

The perspective of this U.N. report is that economic rights are basic human rights. "…the United States is alone among developed countries in insisting that while human rights are of fundamental importance, they do not include rights that guard against dying of hunger, dying from a lack of access to affordable health care or growing up in a context of total deprivation." And this is fundamentally a political issue. "…in a rich country like the United States, the persistence of extreme poverty is a political choice made by those in power."

The last time that inequality and poverty were this serious in the U.S. was at the start of the Great Depression. From that point until the mid-1970s inequality steadily declined and the promise of prosperity for all was closer than ever. Since 1980 the shares of American economic success have increasingly gone to the richest segment of society and it has become ever harder for everyone else to crack into that realm.

There will be no simple solutions to the two problems of inequality and extreme poverty. But before we can talk about solutions we need first to agree on what kind of country we want. For me, I am shamed by a land characterized by brutal competition

leaving a few people fabulously wealthy and the rest left behind. I imagine us as a more humane people where we see the value in each other as humans with the right to live decent and meaningful lives. With a shared vision of economic rights for all, we can find the ways to make ourselves proud of the humanity of a land with liberty and justice for all.

The Northern Bobwhite Calls for a New Ethic

July 15, 2018

By Mark W. Anderson

For the past few weeks we have heard a Northern Bobwhite singing in our neighborhood. This is a bird we associate with Southern New England, so we were surprised to hear it in Eastern Maine. My first thought was, here is yet another bird whose range has moved north in response to climate change, a pattern we see with Turkey Vultures, Wild turkeys, Cardinals, and the Tufted Titmouse. The natural range of plant and animal species in North America is clearly changing in response to human-induced climate change. So I checked with a couple of experts to confirm my suspicions.

I was wrong. I find that the Bobwhite cannot overwinter in Maine and is not migratory. My experts explained the birds we are hearing were likely released, either to provide a hunting experience this fall or to provide a target for training young bird dogs. It turns out in Maine there is even a hunting season established for Bobwhite even though the bird is not a natural inhabitant of the state. All of the released birds not shot during the open season are likely to die from starvation over the winter. (If I released Muskox into my woods, could we get a hunting season for them too?)

The release of Bobwhite into the Maine woods is an excellent example of the coming of the Anthropocene, the idea humans are now the most significant force for change on the planet. For all of human history until now, humans needed to accommodate themselves to the vagaries of nature. Catastrophic storms, droughts, insect infestations, and other natural events were termed "Acts of God," reflecting the idea that nature was beyond human control. In the Anthropocene, the name some geologists are giving to this new epoch, humans are increasingly causing the changes in nature, good and bad, that affect both us and other species with whom we share the planet.

In the previous epoch, the Holocene, when humanity was at the mercy of natural processes, we developed an ethic where nature was seen as a source of human wellbeing and a force that needed to be conquered. Humans worked to push the frontier, the line between what we control and what was beyond our control. Once there was no more frontier, we had brought all the natural world into the service of humanity, hence the Anthropocene, literally, the human epoch.

Two concepts characterize the ethic that we adopted in this process, utilitarianism and commodification. The utilitarian perspective is that nature exists to create human wellbeing. So the value of nature is measured in terms of what utility it creates for humans. In modern environmental economic language, we use the tools of ecosystem service valuation to determine whether or not natural systems are worth protecting. This leads to the commodification of nature, putting nature in the same category as everything else traded in the marketplace, toothpaste, shoe laces, gas grills, and hot dogs, for example.

So, in the Anthropocene, we take Bobwhite from their natural environment, breed them in captivity, and release them where they cannot survive. All this to serve a human purpose. This is part of the broader approach we call wildlife management , which always sounds to me to be a contradiction in terms. Can something really be wild and managed at the same time? Apparently it can in the Anthropocene.

The old ethic served humans well before the Anthropocene. But the coming of the Anthropocene is such a profound change that it calls for us to develop a new, fundamentally different ethic.

First, we need to recognize that nature exists not solely to satisfy human needs. Nature is valuable for its own sake, whether or not it generates utility for humans. Nature is more than toothpaste. So protecting nature from human actions is worth more than the dollar value of services natural systems provide for humans.

Second, recognizing this intrinsic value of nature means that some places should be set aside for natural processes to work without human interference. This is the idea behind rewilding. Wild areas are those without human management so rewilding calls for humans to get out of the way so that nature can be as it will.

Third, when natural events wreak havoc with human culture, we can no longer place all the blame on "acts of God." We now must look to ourselves and understand how human actions may have contributed to the change in natural systems.

Fourth we need to acknowledge the first law of ecology, variously stated as:

Everything is connected to everything else… or

You can never do just one thing.

Our actions have consequences and usually lead to unanticipated effects. When it comes to the natural world, we are not as smart as we think we are. Who knew that burning fossil fuels to move our cars around would contribute to deadly storms on the

other side of the planet? More caution is called for as we work to satisfy human needs and wants in the Anthropocene. We are responsible for the effects we cause, whether those effects were intended or not.

Earlier I wrote of the need to develop a field guide to help us recognize this new epoch, the Anthropocene. From recognition comes understanding of how we need to change. When I hear the Bobwhite call I hear a summons for us to find a new ethic to guide us to a way forward. This way will have a place for both humanity and the rest of the natural world.

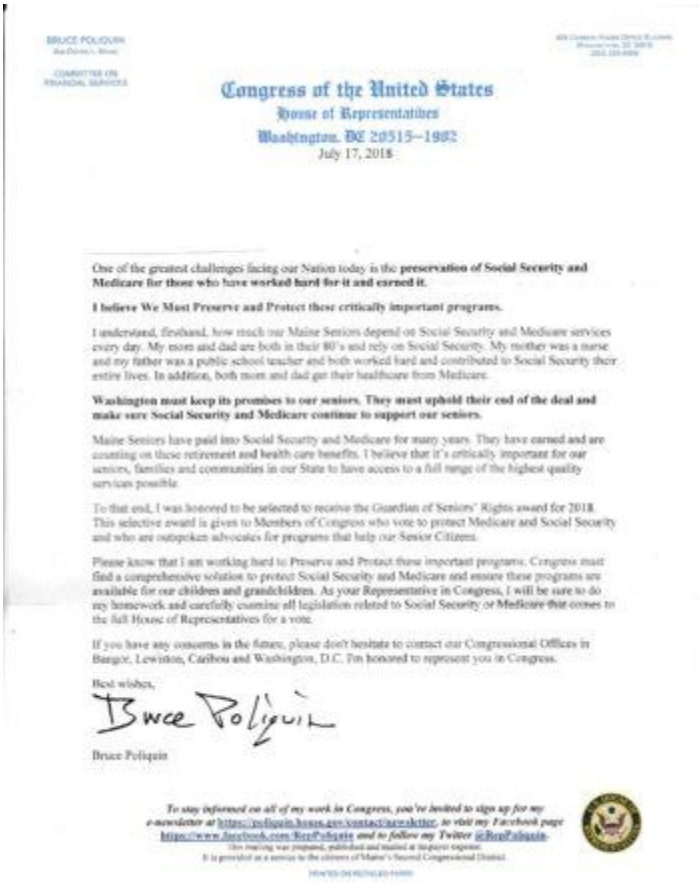
Your Tax Dollars at Work

July 26, 2018

By Mark W. Anderson

We know when it is a Congressional election year. Like clockwork, in the mail arrives a letter from Maine Second District Representative Bruce Poliquin. The envelope boldly declares:

"Public Document Official Business."



BRUCE POLIQUIN

COMMITTEE ON FINANCIAL SERVICES

Congress of the United States
House of Representatives
Washington, DC 20515–1902
July 17, 2018

One of the greatest challenges facing our Nation today is the **preservation of Social Security and Medicare for those who have worked hard for it and earned it.**

I believe We Must Preserve and Protect these critically important programs.

I understand, firsthand, how much our Maine Seniors depend on Social Security and Medicare services every day. My mom and dad are both in their 80's and rely on Social Security. My mother was a nurse and my father was a public school teacher and both worked hard and contributed to Social Security their entire lives. In addition, both mom and dad get their healthcare from Medicare.

Washington must keep its promises to our seniors. They must uphold their end of the deal and make sure Social Security and Medicare continue to support our seniors.

Maine Seniors have paid into Social Security and Medicare for many years. They have earned and are counting on these retirement and health care benefits. I believe that it's critically important for our seniors, families and communities in our State to have access to a full range of the highest quality services possible.

To that end, I was honored to be selected to receive the Guardian of Seniors' Rights award for 2018. This selective award is given to Members of Congress who vote to protect Medicare and Social Security and who are outspoken advocates for programs that help our Senior Citizens.

Please know that I am working hard to Preserve and Protect these important programs. Congress must find a comprehensive solution to protect Social Security and Medicare and ensure these programs are available for our children and grandchildren. As your Representative in Congress, I will be sure to do my homework and carefully examine all legislation related to Social Security or Medicare ~~that~~ comes to the full House of Representatives for a vote.

If you have any concerns in the future, please don't hesitate to contact our Congressional Offices in Bangor, Lewiston, Caribou and Washington, D.C. I'm honored to represent you in Congress.

Best wishes,

Bruce Poliquin

Bruce Poliquin

To stay informed on all of my work in Congress, you're invited to sign up for my e-newsletter at https://poliquin.house.gov/contact/news-letter, to visit my Facebook page https://www.facebook.com/RepPoliquin and to follow my Twitter @RepPoliquin.

This mailing was prepared, published and mailed at taxpayer expense.
It is provided as a service to the citizens of Maine's Second Congressional District.

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At first the letter is a puzzle. What "official business" do we have with this office?

Then we remember. Mr. Poliquin uses the prerogatives of office to send out campaign materials using public funds. The only time we hear from him in this way is before a Congressional election. Sure enough, enclosed was a self-congratulatory letter lauding

his defense of Medicare and Social Security. (Did we get this particular "public document" because we are of a certain age?)

Why are Members of Congress able to use public dollars to mail constituents what can only be understood as campaign literature? Does this obviously inappropriate use of taxpayers' resources reflect his larger disregard for the careful use of our hard-earned funds? I am happy to pay my Federal income taxes to support the common good. I am not so happy to see those tax dollars fund Mr. Poliquin's reelection campaign.

The closing of the letter extended Mr. Poliquin's "Best Wishes." My best wish is that he not use the power of his public office, held in trust, to fund a political campaign.

Lessons From Seaweed

October 22, 2018

By Mark W. Anderson

Most Mainers know something about seaweed, some of what they know might even be true. My mother sang the praises of dulse in her diet, though I recall that she rarely ate it. My father used what we called rockweed from the shores of Penobscot Bay to enrich his vegetable garden. R.P.T. Coffin describes the treat of a "…sea-moss farina pudding" in November of his Coast Calendar. Seaweed is woven into the culture of Maine.

Susan Hand Shetterly really does know a lot about seaweed, and her new book Seaweed Chronicles is captivating, a book every Mainer should read. Maine has a tradition of engaging fiction writers who interpret life here to the larger world. When it comes to non-fiction, Maine is linked to two profoundly important writers of the 20th Century, E.B. White and Rachel Carson. Shetterly's new work reminds me of both.

In *The Elements of Style* White admonishes us to "avoid unnecessary words." In Seaweed Chronicles every word counts. There is a sparse, crystalline quality to Shetterly's writing, evoking the very coastline she describes. In the tradition of Rachel Carson, Seaweed Chronicles is a cautionary tale. She weaves stories of the people from Maine's coastal communities with science that should inform our exploitation of the bounties of nature. The book is, at the same time, both authentically Maine, and deeply learned.

The book makes me think of the idea of home. The ancient Greek word for home (or household or family) is *Oikos*. This is the root for two English words at the heart of Shetterly's book, ecology and economics. Seaweed Chronicles exemplifies both the first law of ecology and the first law of economics:

- Everything is connected to everything else
- There is no such thing as a free lunch

In our exploitation of Maine's seemingly abundant marine resources, we have ignored both of these laws, at our peril. By viewing the natural world as individual buckets we can draw from (the cod fishery, for example), we ignore the complex interactions of ecosystems with many parts and violate the first law of ecology. By viewing that same natural world as a gift, available to the first person who figures out how to exploit nature best, we violate the first law of economics.

Seaweed Chronicles makes clear that both of these laws hold, even when we choose to ignore them. This is a book that is both a delight to read and profoundly important too. We all need pay attention.

Inequality and Concern for the Environment

November 10, 2018
By Mark W. Anderson

If you have read Stirring the Pot blog very much (thank you), you will have noticed two persistent themes — inequality and the environment.

Examples of bogs on inequality include:

Class Warfare?

Shame on Us

The Crisis of Our Age: Part II Welfare Economics

Among those on environmental issues are:

When Did We Stop Worrying About Population Growth ?

Pennies for Puffins

The Wilderness Ethic

These seem to be different topics, unrelated except that they may be perceived as part and parcel of the 21st Century liberal agenda (using the American meaning of liberal). It turns out that there is a strong link between how people around the world think about these two broad issues areas.

One of my UMaine colleagues shared with me a technical article from the journal Social Psychology and Personality Science which explores the link in human attitudes on inequality and the environment. The article is titled On the Relationship Between Social Dominance Orientation and Environmentalism: A 25-Nation Study. Using well tested and widely accepted techniques, the authors confirmed globally what had been shown to be true in individual countries. The research confirmed "…a link between support for social inequality among social groups and support for legitimizing myths justifying human dominance over nature…" Generally speaking, people who are comfortable with

inequality in society are also comfortable with the idea that nature exists to serve human wants and needs.

Humans dominating other humans (inequality) and humans dominating nature are just two sides of the same coin. This finding generally holds up across diverse cultures and various stages of social and economic development.

If this is true, it has broad implications for Americans where inequality has increased steadily for almost a century. It is not surprising then that as we tolerate this increasing inequality we would also accept the climate change denial that persists in our culture.

This finding also has implications for how environmentalists talk about what they do and why Americans should support greater protections for the natural world. Increasingly, as I have written , environmental groups have turned to justifying their work to the general public by emphasizing the value of ecosystem services provided by nature. In other words, we should protect nature because it provides for humans services we would have to pay money for otherwise.

Unfortunately, this is just another way of saying that nature exists for human wellbeing, a perspective that naturally leads to human domination of nature. If nature is nothing more than a commodity for generating human benefits, then we can ignore any adverse effects of human actions as long as those effects do not hurt the flow of human values from natural systems. The idea of ecosystem service valuation reinforces the idea that humans should dominate nature.

So the irony is that by focusing on ecosystems service valuation, environmental groups cause less support for protecting nature. This new research on inequality and environmentalism helps explain why this happens.

But how real is this effect? Research by some of my UMaine colleagues shows that "pricing nature" reduces significantly how much people are willing to donate to support conservation.* It follows that acknowledging nature as intrinsically valuable, worthwhile without reference to human benefits, would lead to more support for environmentalism.

Being for fairness among humans and seeing humans as part of nature is all of a whole cloth.

*See: Goff, S. H., Waring, T. M., & Noblet, C. L. (2017). Does pricing nature reduce monetary support for conservation?: evidence from donation behavior in an online experiment. *Ecological economics*, *141*, 119-126.

What Climate Change and the U.S. Federal Deficit Have in Common

December 4, 2018

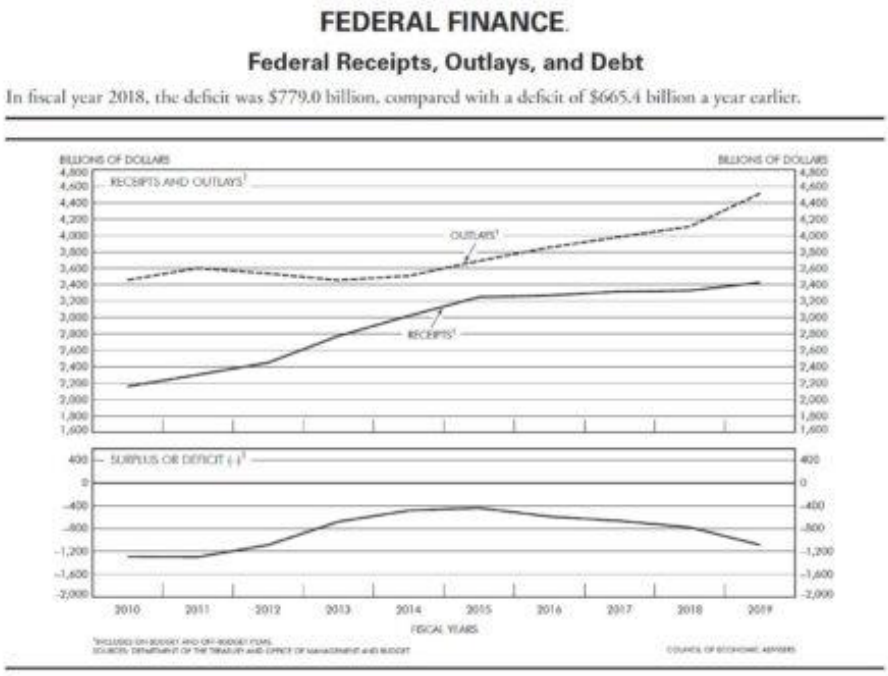
By Mark W. Anderson

Let's start with two facts.

First, the human population continues to change in unprecedented ways how the Earth's systems function. Originally this was called global warming. The realization that changes in the global climate included more than just temperature changes led to use of the term climate change. Now we understand that more in nature than just the climate is changed by human behaviors, so the appropriate term to use is global change. The term includes accelerated rates of species extinction, ocean acidification, increases in earthquake activity, and other aspects of change in natural systems caused by humans.

The scientific evidence for this change is so overwhelming that only hardened climate change deniers refuse to accept it. Revered naturalist David Attenborough goes so far as to see global change as an existential threat to modern human civilization.

Second, the deficit of the U.S. national government continues to grow at unsupportable levels. The massive tax cuts of last year, despite the false promise that they would stimulate economic growth sufficient to pay for themselves, resulted in an addition to the Federal debt of nearly $800 billion. It is projected that the Federal deficit will be over one trillion dollars this current fiscal year. This leaves us with a total Federal debt of over $21 trillion at the end of last fiscal year. $21 TRILLION! The number is incomprehensible, a debt four times what it was just at the turn of the Century.



At a time of unprecedented economic prosperity, we should be paying off our debts, not adding to them.

So how are these two facts related? They both reflect a phenomenon that I have called disdain for the future. This is the idea that in modern American culture we have become so concerned with our needs and ever larger material wants that we will do anything to satisfy those wants, regardless of the implications for future humans or for the vast non-human parts of nature. It is the ultimate form of selfishness that scholars have characterized as presentism. Only the present matters; the future is left to fend for itself.

This is in marked contrast to earlier generations that considered how their public policies and private behaviors affected those who were to come. This attitude was beyond the conservative approach of "saving for a rainy day," which focusses on the future needs of those alive in the present. Rather, it recognized that there is an unwritten compact among generations, something I have termed intergenerational bargains. Responsible generations are those that recognize they have a debt of gratitude for what they inherit from previous generations and an obligation to treat future generations at least as well, maybe better.

We can all think of examples of things past generations have done for which we are grateful and for which we have regrets. Many Maine people are grateful to Percival Baxter for his vision and generosity in creating Baxter State Park. This created wellbeing for countless people that we must guard against taking for granted. Conversely, many in the Bangor area regret the demolition of Union Station

during "Urban Renewal" in the 1960s. This was a loss of cultural significance and of potential for the City of Bangor unrealized.

The issues of global change and our growing collective indebtedness are both extreme examples of disdain for the future. They basically ask future humans to shoulder the costs of our enjoyment today. It is akin to going to the drive-through window at a fast food joint and telling the clerk, "I'm not going to pay for this meal. There's a Ford F-150 that will come through here in an hour, and they're going to pay my bill." Try that and you won't get your burger and fries. Yet this is exactly what we are doing in the present.

So, it is time for an attitude change. We need to ask ourselves simple questions. When it comes to issues like global change and the national debt, what would the future have us do? How will they remember us should we fail to take responsibility for the future impacts of how we act today? Do this and we will start to uphold our end of the bargain. We will begin to think about how we can nurture the gifts from the past and leave a future that will be grateful for what we passed on to them.

One Lesson NOT to Take from France's "Yellow Vest" Protests

December 11, 2018

By Mark W. Anderson

One narrative about the Yellow Vest protests in France is that politicians should not adopt energy taxes to change behaviors that lead to climate change. In this telling, the political costs of wise energy policy are too high. This is an overly simple reading of the French experience and is a convenient excuse for those corporate interests hurt by use of well-designed taxes to address environmental problems.

I have argued before in this blog about the need for raising the gas tax in Maine. The French protests were triggered by an increase in the tax on diesel fuels, but those protests are about much more, which is seen in the fact that protests continued even when the diesel fuel tax was rolled back.

In fact, part of the problem here is that France had created incentives to use diesel fuel by taxing it less than gasoline. The idea was that diesel cars were more fuel efficient and, because of the false promise of "clean diesel engines," a more environmentally desirable automotive technology. It is much easier for politicians to use subsidies or regulations to encourage a specific technology than it is to use taxes to discourage behaviors that contribute to environmental problems like global change. We see this in the U.S. with subsidies for all kinds of energy types – wind, solar, ethanol, and even fossil fuels. This approach requires policy makers to pick "winners" among competing technologies, like the French had done with diesel engines. (We see this picking of winners in the U.S. in what I have termed the false promise of biofuels.)

The alternative is to use taxes (the fancy economics term is Pigovian taxes) to address the hidden costs of technology (externalities in economics jargon). Then markets do what they do best, create incentives for people to make consumption decisions and firms to make production decisions based on complete information about benefits and costs.

Using this logic to address the impending crisis of global change, including climate change, calls for an economy-wide carbon tax. A well-designed tax of this type would have the following attributes:

1. It would apply to **all** forms of energy at the source (the mine, the well, importation) and would tax energy based on the total greenhouse gas emissions expressed in terms of carbon dioxide equivalents. So, for example, methane emissions would have a higher tax because of their greater greenhouse gas contributions.
2. This would mean that the costs of emissions would be embedded deeply into economic decision making. The full costs of economic activity would be built into prices.
3. This would reduce the expenditure of funds for lobbyists to affect energy policy, part of a vast system of rent seeking behavior in the U.S. economy.
4. The tax should be revenue neutral. Some other tax should be reduced by an equivalent amount so that the people do not feel an additional tax burden. The best way to do this would be by reducing the most regressive Federal tax we have, the payroll tax that funds the Social Security Trust Fund. A fair way to do this would be to reduce the tax on both employer and worker on a first dollar earned basis. So workers would not pay a payroll tax, for example, on the first $5,000 of income each year. At the same time, again to instill a greater sense of fairness, the cap on earnings subject to the payroll tax should be eliminated. (In 2018, incomes above $128,700 are not subject to the Social Security tax.)
5. A carbon tax should be introduced at a lower level than is needed and then increased automatically and routinely. The Economist suggests starting at $50 a ton of carbon dioxide emissions and rising to $200 a ton over 25 years. This would allow firms and households to begin planning for their response to the rising tax levels.

The beauty of such approach is that it fixes what markets fail to do; it forces markets to reflect the hidden environmental costs of energy use. At the same time it takes advantage of what markets do well, it encourages efficient decisions by firms and consumers based on full information of costs and benefits.

We should not draw the wrong lessons from the mistakes of French policy, which engendered such a sense of unfairness in society. The yellow vest protests are not really about raising energy taxes; that was merely the trigger that unleashed much greater underlying forces. Rather, we can learn from that experience how to better use taxes both to address environmental challenges and to enhance fairness in society.

There is clear scientific consensus that global change is real and threatening to our modern culture. Now is the time to act and there is no better approach than an economy-wide tax on the greenhouse gas emissions from the production and use of energy from all sources.

Profits from Patriotism?

December 16, 2018

By Mark W. Anderson

The idea of rent seeking by companies is a common theme of Stirring the Pot. Rent seeking occurs when firms or whole industry groups lobby government bodies to fix the rules of the market to benefit one particular firm or group of firms. This can be as simple as getting the government to buy a particular product to boost the market price (wild blueberries for example) to arcane arrangements giving groups of firms a market advantage (catalytic converters on automobiles).

Companies can earn economic rents (profits above what competitive markets would earn) in more subtle ways. A good example might be the relationship between the charity Wreaths Across America and the Worcester Wreath Company of Columbia Falls. A recent story in the Ellsworth American explores the relationship.

The heart of the story is that the same family that founded and continues to run the charity owns the wreath company, from which the charity buys all its wreaths. The charity has begun a bidding process for the purchase of wreaths, but the company has been the only bidder to date. So your donation to the charity to support its work is effectively an order for another wreath from the company. Since Worcester Wreath is a privately held company, we don't know whether it is earning economic rents from this relationship.

What we do know is that the work of this charity has become a favorite holiday patriotism story for the news media. Indeed, in the very issue of the Ellsworth American with the story cited above, there was another about the Wreaths Across American convoy with Maine politicians prominently on display. We all feel good knowing that the charity helps us remember the debt of gratitude we owe our veterans.

But we are left with the question, is patriotism that is good for business another form of rent seeking behavior?

Right Wing or Left Wing – There Are Still No Free Lunches

April 10, 2019

By Mark W. Anderson

Readers of Stirring the Pot know that I am deeply concerned about the issues of global climate change and inequality in the United States. Climate change, or the larger issue of global change, is an existential threat to modern human civilization. Inequality strikes at the very heart of the American ideal of "liberty and justice for all." So at first glance I should enthusiastically embrace the Green New Deal, a proposal by Democrats to address these twin issues. The foundational statement of this idea is House Resolution 109 – Recognizing the duty of the Federal Government to Create a Green New Deal.

The Green New Deal proposal suffers from the same shortcomings as the right-wing tax cuts of both the Bush and Trump administrations. They all ignore the first law of economics, there is no such thing as a free lunch. Politicians of all stripes like the idea of magic beans, policies that will do good with no costs because they will "pay for themselves." So the Republican tax cuts of the last twenty years tacitly embraced the discredited idea of a Laffer curve, the notion that income tax cuts will pay for themselves because they will stimulate business and raise incomes enough so that taxes collected will actually increase even though tax rates declined. The economy just does not work that way. The result of these tax cuts has been increasing inequality, increasing government deficits, and a shifting of the costs of current consumption to future generations. A Ponzi scheme.

The Green New Deal offers a similar something for nothing scheme, predicated on the idea that we can spend our way out of the twin dilemmas of climate change and inequality with little or no concern of how to pay for that spending. The approach of spending our way out of these problems has been justified by reference to Modern Monetary Theory, the left-wing corollary to the Laffer Curve. This idea is predicated on the notion that nations that issue their own currency cannot run out of money. Hence government spending is simply the means of putting currency into the economy. This too ignores the first law of economics – there is no free lunch.

Indeed, this approach belies the basic critique of modern economics offered by the discipline of ecological economics. The great economist Herman Daley once observed that the problem with many economists is that they are at once both too materialistic (thinking that wellbeing comes only from consumption) and not materialistic enough (forgetting that human economies are fundamentally about the matter and energy that we take from nature to meet our wants and needs). Modern Monetary Theory suffers from both of these ills. Thus the underlying assumptions of the Green New Deal as an approach to solving our most pressing problems are flawed. The problem with the Green New Deal is not the red herring of "socialism" that the Republicans are claiming it to be. The problem is that the deal is flawed in just the same way that Republican fiscal policy is flawed, it promises something for nothing.

I am fully in agreement with the description of the problems the Green New Deal is designed to address, problems which are not only ignored by the current Administration, but also denied. Our collective survival demands solutions to global change, including climate change, and inequality. These solutions will not come at no cost; we will need to make difficult decisions. Most importantly we need to recognize that all of us must make some changes in how we live; our individual behaviors collectively yield the emissions of gases that lead to global change. Changes in those individual behaviors will only happen if we individually face the costs of what we do, an approach that the Green New Deal avoids in an attempt to make solutions seem painless. It promises that free lunch.

Broad consensus among economists is that the most effective way to address climate change is to make the sources of climate change, greenhouse gases, more expensive to emit. This sends signals throughout the economy, both to consumers and producers, telling them to find a way to use less energy and to use energy more efficiently. A tax on carbon emissions (no exceptions) is an efficient way to encourage alternative energy technologies and signal consumers what costs they are imposing on others in their energy consumption.

The problem is how to do this tax fairly, particularly since low income households spend a higher proportion of their income on energy than higher income households. (The latter actually spend more in absolute terms because they consume more goods and services.) There are lots of ways to do a carbon tax and actually reduce income inequality as well. Just one approach is to take the tax revenues from a carbon tax and reduce the payroll tax (FICA) paid by both workers and employers to fund the Social Security Trust Fund. By eliminating the FICA tax on first dollars earned instead of reducing the tax rate, it would make this system more progressive; eliminating the ceiling on earnings subject to FICA taxation (currently $132,900) would make the system even more progressive and the Social Security System more sustainable.

A tax on "bads" (climate change causing gases) to reduce taxes on "goods" (work) would do more than a host of government expenditure programs in the Green New Deal, many of which would be subject to rent seeking behavior.

Climate change mitigation and greater fairness, all without resorting to the false promise of a free lunch for all, that would be a Good Deal.

The Economics of Nature

June 3, 2019

By Mark W. Anderson

We went for the first time this year to the Orono Bog Boardwalk on Monday morning. This is an absolute gem of a resource for the Penobscot Valley community, giving people easy access to a part of our Acadian landscape that is not often so easily visited. If you have never been there you will be "blown away" by the natural beauty of this resource and will quickly forget that you are still in the confines of the City of Bangor, a stone's throw from the sprawling retail strip developments of the Bangor mall. The closeness of bird, plant, and water will remind you what is so special about Maine and how fortunate we are to be here.

The visit got me thinking about the many ways that economists have come to think about nature and about the human-built resources like the Bog Boardwalk that allow us to get closer to our natural world.

In conventional economics, nature was little more than a "resource," something to be used with labor and capital to make the stuff of everyday life. In this perspective, a bog is a source of natural inputs in a "production function." The goal would be to find a way to mine the bog and extract its peat moss for sale to gardeners as a soil amendment. (Once I realized that those bags of peat moss were hiding the destruction of other bogs like the Orono Bog I was no longer comfortable using peat this way.) In pre-industrial societies that did not have the benefit of coal, oil, and natural gas, peat was a source of household energy. Think of it as coal before it got to be a fossil. In this way of thinking about the economics of nature, the value of nature was determined by markets where the products of nature were bought and sold to fuel economic activity. Places without market value were considered "waste lands."

By the 1960s, economists were beginning to understand that markets did not always value nature fully or correctly. An explosion of research by economists focused on values not captured by the interaction of classical market supply and demand. This became a part of the environmental economics movement known as non-market valuation.

In this view, the Orono Bog and the walk that gives you access to it are "public goods." No private market will produce public goods so they have to be provided by the government or, as in the case of the Orono Bog Boardwalk, by a community of committed volunteers and donors. Once provided, it is impractical to restrict access to those who want to enjoy the nature of the bog, so it is available to all. Economists developed non-market valuation as a way of estimating what people's value was for

such goods by trying to determine what they would be "willing to pay." Presumably such estimates would provide a justification for keeping access to nature available and to protecting the very natural processes that make it possible, i.e. environmental protection.

At the same time, other economists looked to justify protected resources like the bog by estimating the "economic impact" of facilities like the boardwalk. Economic impact is fundamentally different from the concept of economic value. Studies of impact simply ask, does the investment in protecting the bog and providing access to it through the boardwalk stimulate spending and employment that would not otherwise occur in the economy? This was a case of economists arguing that environmental (nature) protection is good because it makes the larger economy more active, a very different idea from that of nature is good because people get value from it. One problem with economic impact analysis as support for the protection of nature is that an activity does not need to be good to stimulate economic activity. Car crashes and outbreaks of the measles virus both create jobs and stimulate spending, but that does not mean we would want more of them.

In the 21st Century, these two arguments, non-market valuation and economic impact analysis, have become intertwined in the idea of ecosystem service valuation. Here, bogs are good because they provide services to humans that would otherwise have to be engineered. So nature cleans water, makes people less anxious, removes greenhouse gases from the atmosphere and otherwise does things of economic value relieving us from having to pay for these things to be done by direct human activity. Ecosystem service valuation has become almost a fetish in the environmental community.

Think about this. What a visit to the Orono bog in early June reveals is that there are two more values to nature that are impossible to capture through economic thinking of any variety. First, nature just makes people feel good in ways that are not translatable into monetary language. There is something in the natural world that is different from let's say toothpaste. Recent research by behavioral economists suggests that talking to people about nature in terms of dollars and cents actually makes them less concerned about the environment. So much, then, for ecosystem service valuation. There are parts of nature that are just different from the things we trade in markets that dominate our economic system.

Second, nature surely has intrinsic value. It is valuable in and of itself without reference to humans. There is a magical spot on the bog boardwalk where you emerge from the forest and head onto an open bog covered in moss and flowers. Monday a White-throated Sparrow sat in a dead larch tree at this spot and sang away, the sweet, plaintive song of the white throat. Perhaps he was setting his territory or was advertising to attract a new main squeeze. In any event, he didn't need my

appreciation of his beautiful singing to be valuable and his song carried on, I am sure, after I moved along. This was his spot and he didn't need me to justify his presence.

Cook with Olive Oil, Kill Birds

June 11, 2019

By Mark W. Anderson

The theory of efficient markets, when applied beyond financial markets, is proposed by those who bridle against government regulation of business. Their idea is that markets will punish bad behavior of individual firms or even whole industries and thus create incentives for firms to produce goods and services without harming employees, consumers, or the environment. In theory, the desire of firms to maintain good reputations, and thus not degrade "brand equity," is supposed to obviate the need for government regulation.

Of course we can all think of multiple examples of workers, consumers, or the general public hurt by firms that cut corners, particularly when introducing new products or production processes. Often the firms know about health and safety risks of their products well before the general public (think of the tobacco industry). This leads to a common market failure called information asymmetry – the firm knows something about its product that is invisible to consumers. The lack of full information leads consumers to buy products or services they might not otherwise purchase were they aware of that information.

This type of market failure was part of the rationale behind the technology assessment movement of the 1960s and 1970s. The idea was that before new technologies could be introduced their likely social, economic, and environmental impacts should be documented. The U.S. Congress even had an Office of Technology Assessment (OTA) to aid it in thinking about the public interest in new technological development. The belief was that innovation is not good in and of itself. The OTA was closed by the Republican Congress when Newt Gingrich delivered on his "Contract With America." Government meddling with new technologies was an anathema to free market proponents.

We have yet another example of the pitfalls of new technology with unanticipated consequences as a threat to the quality of our environment. This threat derives from the success that nutritionists and chefs have had in encouraging people to cook with olive oil. The rising demand for olive oil has increased production (good for farmers), leading to the need for **new olive harvesting technology**. Mechanical harvesting of olives has grown dramatically in Europe. No one anticipated, at least not publicly, that this new technology would be bad for migratory song birds. Yet the use of these harvesters shows a wanton disregard for the importance of bird life.

Technology assessment done well would have identified that the new harvesting machines, when used at night as they are in much of the Mediterranean region, would kill millions of song birds. Even the best operating markets will not let consumers know which olive oil they buy kills birds and which does not. Some form of collective action (government regulation) is needed to protect critically threatened species.

This is a situation similar to what I have called Open Season on Chickadees. House cats (feral and those who are allowed to roam outside) and cell phone towers slaughter millions of song birds in North America every year, a phenomenon that is invisible to most people. Text a friend, kill a bird – this is now common place in our culture. The market delivered an incredible new communications mode, yet there was no regard for the impact on wildlife.

All of this is part of the larger phenomenon of the Anthropocene, the idea that we have entered a new epoch where humanity is the most impactful force for change on the planet. We collectively change the weather, eliminate other plant and animal species, and modify the surface of the planet in more and larger ways than any other force on the planet. And we aspire to solve the problems we have created with ever more engineering of natural processes. I called this the adoption of a management ethic. We believe we are smart enough to manage these complex natural phenomena with our technologies.

It is time for modern humans to adopt the precautionary principle, which would lead us to using technology assessment as a tool for public policy. The precautionary principle is the simple idea that before headlong embrace of new technologies we would publicly consider whether the benefits they provide are worthwhile given the potential damages they might do to us and the larger biotic community we belong to. The idea that markets will magically protect us is demonstrably flawed. We need to collectively take control of our future and not leave that to anonymous market mechanisms that may serve some individual interests but do not serve the common interest.

So the next time you sauté some garlic in olive oil, wonder whether it was produced with technology that destroys the natural world. If you cannot tell, that is a problem. It is a failure of markets to function well and it is a disaster for global song-bird populations.

What Would Margaret Chase Smith Have Done?

July 12, 2019

By Mark W. Anderson

The first national election in which I voted was 1972, the year that Margaret Chase Smith lost her U.S. Senate seat to Bill Hathaway. I am sure I must have voted for Hathaway, largely because of Senator Smith's dogged support for American policies in Vietnam.

My early political inclinations notwithstanding, I find the Margaret Chase Smith Library and Museum in Skowhegan to be one of the best historical sites in Maine. I visited in June and it is a place every Mainer should visit The museum is attached to the Senator's home and is filled with mementos from an active political life. Much like the Roosevelt "cottage" on Campobello Island, the Smith home evokes the feeling that famous people are just about to come around the corner. More importantly, the museum has obviously worked hard to document Senator Smith's legacy and ethic of public service. You understand this by the reminders of the Senator's creed:

My creed is that public service must be more than doing a job efficiently and honestly. It must be a complete dedication to the people and to the nation with full recognition that every human being is entitled to courtesy and consideration, that constructive criticism is not only to be expected but sought, that smears are not only to be expected but fought, that honor is to be earned but not bought.

Central to the Smith story was her "Declaration of Conscience" challenging the demagoguery of fellow Republican Senator Joseph McCarthy. But this was just one example of her political courage; and one cannot help but wonder how she would act if she were a Republican Senator from Maine today. My guess from the story presented at the museum and in the history books is that she would have been appalled at the way in which Party has been put before country. It is always dangerous to play this game, but here are some examples of how I think she might have taken a stand today, even against her own Party in the Senate.

When the Republican Senate Majority leader said that he hoped the Obama Presidency would be a failure, I think Senator Smith might have hoped for America to be a success. She was an American before she was a Republican and would have objected to wanting the nation to fail. We would have heard that from her.

When Senate Republican leadership refused to hold hearings and a vote on the nomination of Merrick Garland to the Supreme Court, she would have fought for a vote, even if she might not have voted to confirm. In the museum tour you will discover how important the Constitution was to her. The Senate's role in Supreme Court nominations is "advice and consent" and she would have used her influence to be sure the Senate did its Constitutional work. She would not have stood idly by.

When Senate Republicans voted to change the longstanding cloture rules to prevent Democrats from blocking judicial nominations in the way Republicans had blocked multiple nominations before, I think she would have objected. Senator Smith had a sense of fairness about her; the rules should be the same for everyone. I think she would not have voted to change the rules for political expediency.

I am not sure how the Senator would have voted on the highly contentious nominations of Neil Gorsuch and Brett Kavanaugh, but she did show the independence of spirit and strength of character to vote against President Nixon's nomination of Clement Haynsworth to the Supreme Court. She was willing to stand up to Party and Presidential pressure to do the right thing for the nation.

Finally, and most importantly, Senator Smith showed the courage of her convictions by calling out a popular member of her own Party who was using rumor, misrepresentations, and outright lies to sow division among Americans. She called for fairness, civility, and the recognition of the basic rights; and she feared for the effects of McCarthyism on Republicans. She said in her 1950 speech before the Senate, "…I do not want to see the Republican party ride to political victory on the Four Horsemen of Calumny – Fear, Ignorance, Bigotry and Smear. …I do not believe the American people will uphold any political party that puts political exploitation above national interest."

Would that we were hearing such wisdom and courage today.

What a Pandemic Teaches Us About Neoliberalism

March 29, 2020

By Mark W. Anderson

Social distancing is giving us a lot of time to think. And except for keeping each other safe from this disease, what could be more useful than trying to learn from the pandemic for the future.

This is not a commentary on the abject failure of the Federal government to deal with the pandemic in a timely and effective manner. These failures are well documented elsewhere. The Lexington columnist in the *Economist* explains this well by saying, "It's hard to pick the best illustration of the administration's failings on covid-19. There have been so many."

Rather, this is an examination of how the embrace of the ideology of neoliberalism in the United States led inevitably to these failures. The term neoliberalism is sometimes given to the ideology (or world view) that so-called "free markets" are almost always the best way for societies to allocate goods and services and to mitigate social risks. The efficiency of markets is lauded and the role of government is diminished.

Neoliberalism calls for smaller government, less regulation of business, and suspicion of expertise in any realm, particularly in science. The belief is that markets provide participants with complete information for making rational decisions and firms will avoid risky behavior (producing unsafe products for example) for fear of being penalized by market forces in the future. In this ideology government regulation to prevent unsafe products, environmental pollution, or fraudulent financial services is unnecessary. Supposedly, markets will penalize such behaviors and cause the businesses that do these socially undesirable things to fail. This risk of failure is claimed to prevent undesirable outcomes, like pandemics and financial crises.

The wholehearted embrace of neoliberal ideology over the past three years led to a smaller role for government, particularly in the area of health and safety. Nowhere is this intentional reduction in health and safety clearer than in the public health infrastructure that should be ready to deal with a global pandemic of a novel infectious disease. This "small government" policy is part and parcel of the broader distrust of scientists and other experts throughout the federal government. Even for positions in public health that have not been cut in the wake of the neoliberal small government movement, it is hard to attract and retain talented professionals, when their advice is

ignored and their expertise is devalued. This is true from the Centers for Disease Control to the National Security Council to the Department of State. Cuts in their budgets and missions left them unprepared and the nation at risk.

Of course, even with a robust and empowered Federal public health infrastructure, this pandemic was going to affect Americans. Not because the virus was part of some secret political conspiracy, as first claimed by the administration, but because we are part of a global society. What the small government fetish and trust in markets did was delay the response and reduce its effectiveness. The result will be that more Americans will get sick and more will die than would have been the case. Markets cannot address public health crises.

This is not to say that markets are inherently undesirable parts of the American economic and social infrastructure. Markets are wonderfully effective means of processing a lot of information and sending signals (prices) to both consumers and producers. But free market ideologues seem to have stopped paying attention in their college principles of economics class after the module on perfect competition.

In the real world there is no such thing as perfect competition. Unregulated markets produce goods that are hazardous to your health (cigarettes), injure children they are supposed to protect (child safety seats), and promote deceptive financial instruments that lead to Great Recessions (mortgage backed securities). Unregulated markets lead to increasing inequality (witness the last 50 years in the U.S.) and the growth of monopolies (think American technology firms). And markets have no way to address effectively the threats to health and safety from a global pandemic.

Once we have weathered this storm we will need to restore a proper role for government and be willing to tax ourselves sufficiently to pay for the services only a government is able to provide. It is not a matter of big government versus small government. Rather it is a matter of good government, an understanding that government employees should be appointed or hired based on competence rather than loyalty. Government agencies should be empowered to use good science to make sound decisions. When it comes to pandemics, evidence-based decisions informed by experts are not perfect, but they are better than political decisions informed by ideology.

One of the common law traditions we inherited in the founding of the United States was the obligation of governments to exercise the police powers, the duty to provide for the health, safety, and general welfare of the people. This duty is not left to markets, rather it is what we should expect from our governments. This is the hard lesson we need to learn from the pandemic.

What Makes a Book a Maine Book?

December 11, 2020Authenticity, Book Reviews, DownEast magazine, Henry Louis Gates, Maine, Maine literature, RPT Coffin, Ruth Moore, Stephen King, Two Pigs from Maine

Earlier this year, DownEast magazine chose 100 books that "every lover of Maine should read." This idea of "Maine books" has long fascinated me. It is really a question of what Henry Louis Gates calls authenticity, and I wrote about it years ago in an essay called Two Pigs from Maine.

When DownEast announced their list, I made my own before I read the article, just to see how much overlap there might be between their assessment of what makes a good Maine book and my own point of view. Many of their choices were on my list as well.

Nevertheless, I might quibble about some of the DownEast choices. For example, as a kid, I always enjoyed Robert McCloskey's Time of Wonder more than Blueberries for Sal. The Weight of Winter is a more important book from Cathie Pelletier than their choice, The Funeral Makers. While Spoonhandle is my favorite Ruth Moore title, A Walk Down Main Street is still relevant to understanding Maine life today. Quibbles aside, more surprising were the missing titles in their list. My list has seven entries you should read not included in the DownEast recommendations.

At first, I thought these differences in selection of "Maine books" was natural, given the challenge of any list-making exercise. Then I realized that important books were crowded out of the DownEast list by seventeen Stephen King entries. A good case could be made that a number of these seventeen do not even count as "Maine books" and could make way for some other important Maine writers. In my lexicon, for all of his merits King really is a writer from Maine rather than a Maine writer.

Here is what I think was missing from the DownEast list:

- Some title by Elijah Kellogg, perhaps The Whispering Pine(1900) or one of the Elm Island series, like The Young Shipbuilders (1898). Kellogg wrote juvenile fiction that was widely read across the country, and, more importantly, he wrote with veracity about late 19th Century coastal Maine.
- Even more widely read by the same audience was C.A. Stephens, centerpiece of The Youth's Companion, a weekly family periodical of the time. His stories about the Old Squire and his

grandchildren are still used today by scholars for their descriptions of Maine farm life and of wildlife populations. A good pick for Stephens would be When Life Was Young at the Old Farm(1912).

- The recent take on the same time period in Maine history that I would include is one of Van Reid's Moosepath League books. Of those books, I would choose Daniel Plainway(2000) – not great literature, but fine storytelling and evocative of the late 19th
- Maine has not produced a lot of mystery writers, but surely Sandra Neily's Deadly Turn deserves mention for its insight into the enduring conflicts in Maine's North Woods (more on this book in a future blog post).
- Two additional non-fiction titles should be read by anyone wanting to understand Maine. First would be Inventing Acadia: Artists and Tourists at Mount Desert(1999). What could be more Maine than the intersection of Acadia National Park and landscape painters?
- Second would be Jim Acheson's The Lobster Gangs of Maine(1988). This work has not only informed Maine's success in lobster management over the past few decades, it has been recognized worldwide by economists and anthropologists alike as a seminal study for understanding open access marine resources, like lobsters.
- Finally, the most egregious omission from the DownEast list is R.P.T. Coffin. He deserves to be there as a Maine poet – Strange Holiness(1935), Pulitzer Prize winner; as an essayist – Mainstays of Maine (1944), his take on what we might now call Maine food culture; as a scholar – New Poetry of New England: Frost and Robinson (1938); and as a story teller and illustrator – Coast Calendar (1947). I think Coffin might well have been the most widely read Maine writer until Stephen King, and certainly his poetry is deserving of inclusion before Ruth Moore. Indeed, Coffin was featured in the September 1964 issue of Down East in an article called "A Breath of Maine" and he deserved inclusion in June 2020.

DownEast deserves thanks for encouraging Mainers and lovers of Maine to find their own best of Maine books. What would add to the list?