

YourCarMatters

Tom Dwyer Automotive Services March 2013 Newsletter

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FREE Solar Power!

How to put a solar energy
system on your house...
FOR FREE!!



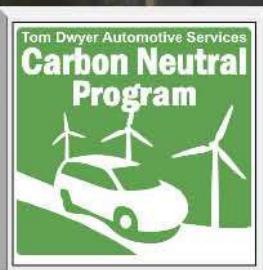
Automotive Amnesty

Get a 15% discount on
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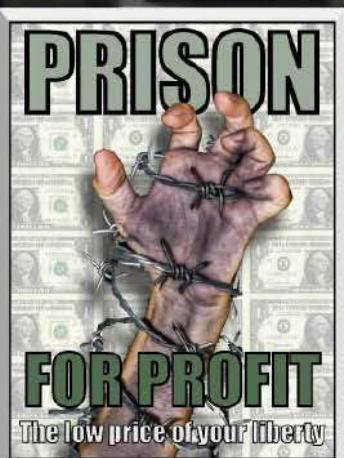
Save Green, Drive Green

Save 10% on labor costs...
oh, and save the planet, too.



News To Make You FURIOUS

Prison for Profit-
The low price of
your liberty





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Our Feature Articles



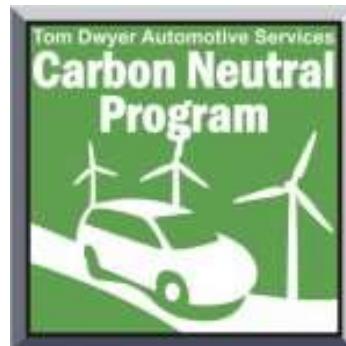
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Our Monthly Columns

"What NOW?!!" Toons

Our special Toon-of-the-Month

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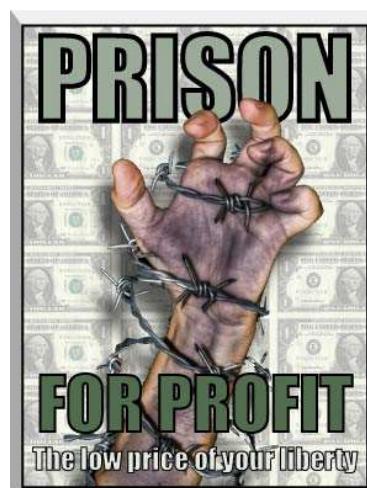
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Cool and important stuff that's too short for a big article

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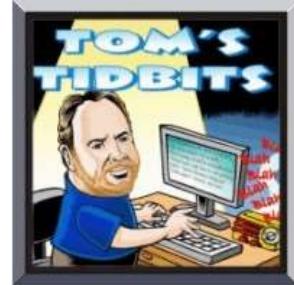


News To Make You Furious

The low price of your liberty

Tom's Tidbits

Death from above... Drones are here to stay.



Greetings!

Drones are the latest profit driven tool of the military/industrial/congressional complex. In some ways it's surprising that it's taken so long for drone technology to advance- we've had remote control hobby planes for decades; putting cameras and laser guided bombs on them doesn't seem like a very big leap. In fact the US has used drones from WWII on, and we did it fairly heavily in Vietnam. The modern drone era started with a couple flights in the Gulf Wars, but got serious in 2001 when the Bush administration used Predator drones to assassinate terrorist leaders in Afghanistan. Since then the Obama administration has put the program on steroids, [executing more than six times as many strikes as the Bush administration](#), although the program was only publicly acknowledged in 2012.

Today the military is backing drone warfare in a big way. The NOVA program, "[Rise of the Drones](#)", reviewed drone technology in depth. Currently the US military has about 2300 manned aircraft of all types, and they are targeting 1/3 of the combat fleet to be made up of drones within a decade. Drone pilots can be trained in less than half the time of a manned pilot, which may explain why we currently have more remote pilots than fighter and bomber pilots combined. Perhaps the most telling fact from the program was that right now no defense contracting company is researching new manned aircraft of any kind. Drones are here to stay.

Drones can hover unseen over potential targets for hours or days, gathering intelligence and waiting for the perfect opportunity to strike. They can probe deep into enemy territory to find their target, eliminating the need for large troop contingents or support bases that could cause diplomatic problems or cost huge sums of money. Perhaps the greatest strength of drone aircraft is what they don't do... they don't expose live pilots to risk. The US gets irate when a drone is lost, but there is no grieving family to comfort and less diplomatic or press blowback.

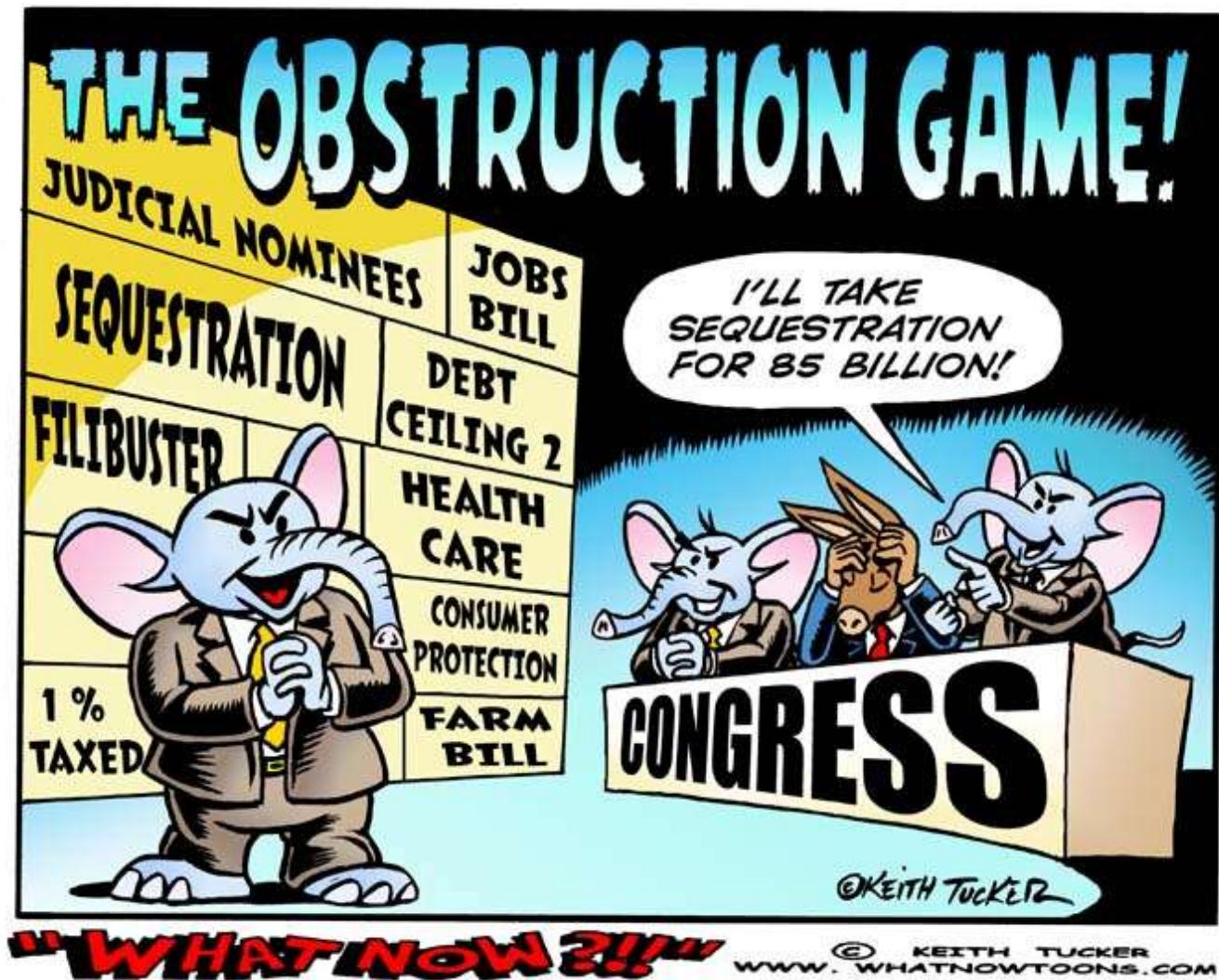
Like other new technologies, drones raise serious questions about their implementation. They are said to be "surgically precise", but results from the battlefield dispute this. What limits are there to this powerful new weapon in war? And, as drones prove their effectiveness abroad, should they find other uses domestically? Can these weapons be used on American Citizens? Can police or intelligence agencies use them here at home? What about private surveillance companies?

The use of drones opens doors to massive abuse, and we the people can't blindly wait and hope politicians build a coherent policy around them. They have already changed the face of war, and I worry their domestic use is another freight train bearing down on us. Drones are a huge issue that will occupy our public debate for decades to come, and I think responsible citizens should get out front on this issue before it's too late.

Take Care and Make a Great Day!

What NOW?!! Toons

See it FIRST in Your Car Matters!



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FREE Solar Power

How to put a solar energy system on your house... for free!

Have you considered solar energy for your home or business? If a company's given you an estimate for solar then you may have had a common experience for solar enthusiasts... sticker shock. One of the main things slowing the spread of solar is the high upfront cost. It's hard to come up with the money to get started, and hard to make the payback pencil out on purely financial terms. But we have great clients, and one of them told us about a program his company has to plug you into the sun absolutely free!

We met Omri Franco when we adapted his Subaru Outback to run on alcohol. One conversation led to another and we soon found out that he worked for Solar City. In January 2011 we ran a Popcorn article about their then-new leasing program to eliminate the upfront costs of solar panel systems. We didn't have much detail on it at the time, but Omri had the whole story and was glad to share. We thought you'd appreciate this presentation he created explaining their innovative program, so buckle up as Omri takes you on a tour of your solar future...



5 things to understand when going solar

by Omri Franco

This narrative is derived from my experience helping over 400 people (including my own family) go solar. This short essay describes 5 things: why go solar, how solar works, what equipment is involved, how you can save money with solar power, and flexible ways to go solar. This should provide you with the background information you need for determining if solar is right for you. At the end, I have also provided a short description of what to expect if you schedule a complimentary site visit from Solar City.

Why go solar?

Why do you want to go solar? In my experience, there are two ends of the spectrum in answering this question. At one end, people want to be as "green" as possible – "Put up as many panels as you can, I don't care about the cost or savings!" There are a lot of great reasons for this, but that starts getting political, debatable and very opinionated. At the other end of the spectrum, people want to install the most cost effective system – "I'll go solar, but it should save me MONEY!"

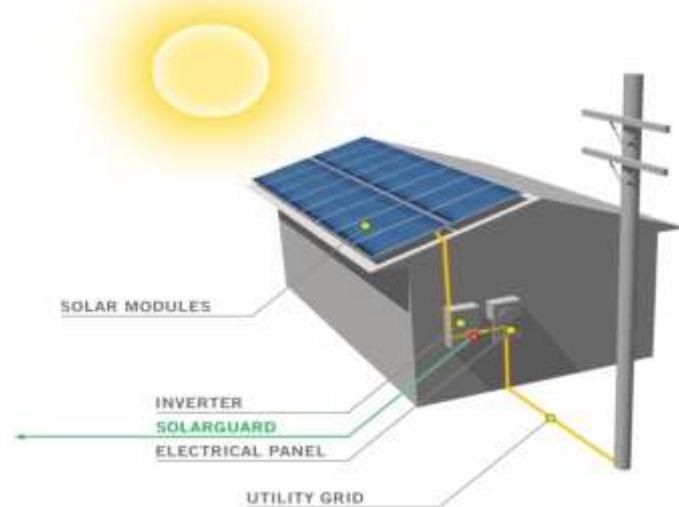
For most people, their objectives fall somewhere between the two extremes. Folks want to save money and if they're helping the planet, well fine. Importantly, the reality is that we rarely have enough roof space for enough solar panels to offset all of a home's usage. So, by design, most systems will show very good savings over time.

How it Works

In a photovoltaic (PV) system, the sun's photons hit the solar panels up on the roof and electrons are peeled off in the form of DC (direct current) electricity and fly along conductors (wires) to an inverter. The inverter (about the size of a bread box) converts the DC electricity into AC (alternating current) electricity. AC is the electricity that powers our homes.

Solar power systems are almost always “grid tied.” This means that when more power is being produced by the solar panels than is being used in the home, the extra electricity goes back to the utility grid. This is where you hear the expression “my meter spins backwards.” Most of the time the meters don’t actually spin backwards – most of the meters now are digital, but they have two arrows that light up. One arrow points to the left when more power is being produced by the solar and the other arrow points to the right when the home is using more power.

Being grid-tied also means that when the power goes out with the utility, the power goes out in the home. This is a mandatory protective safety measure required by the power companies, when grid power is restored the system will automatically come back online. It is a common misconception that PV systems will power a home if there is a grid power loss, to do this you need some type of power storage like a battery system along with the PV, SolarCity does not currently install battery systems as they are not economically viable for most clients.



The Equipment

The two main components in a solar power system are the panels and the inverter/s. Panels (also called “modules”) are all fairly similar. They are silicon-based and have similar efficiencies. There are a couple of brands of panels that have slightly higher efficiencies, but the added cost is not usually worth it (unless roof space is an issue and money is not).

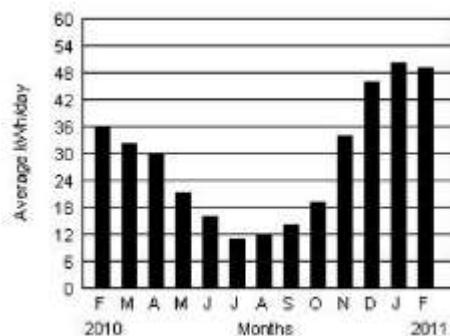
The technology of solar panels has not (and is not) advancing too rapidly – fortunately, what we have available today is quite effective. Solar is not like computers that get twice as fast every 18 months at the same or lower cost (i.e. Moore’s Law). The technology started growing during the start of the space program in the 1950’s – six decades ago. In that time, the efficiencies have gone from about 4% to around 15% now. There’s a theoretical limit on how much energy can be captured in solar panels (around 40%). The highest efficiency (and highest cost) panels available now are about 19% to 22% (although there are some premium, custom panels used in the space program now with around 28% efficiency).

Panels are expected to last 30, 40 or even 50 years. They degrade at about 0.5% per year. Manufacturers typically provide a 20 or 25 year performance warranty at about a 1% per year degradation rate. Inverters also last a long time, but are more efficient. They typically have 93% to 96% conversion efficiency ratings. Most inverters are warranted for 10 years.

Saving Money with Solar Power

In Oregon we are very fortunate to have some of the lowest utility rates in the nation. With that being said we have also experienced some of the largest increases in our energy costs over the last few years. Industry analysts predict double digit annual increases over the next 10-15 years.

First, you should have an understanding of how you pay for electricity. Take a look at the “Average kW/day” section of your electric bill.



Traditional Oregon residences without air conditioning can see a predictable valley pattern of their electrical usage i.e. high in the winter and low in the summer. The utility charges you per kilowatt-hour (kWh) of energy that you consume each month. Winter months have increased usage while in summer months we enjoy smaller electric usage and hence lower electric bills.

Inversely to your electrical consumption, solar in Oregon produces a tremendous amount of energy in the summer time with 12-13hrs of sunlight. ***Over the course of the year Oregon has more solar access than the national average!*** In Oregon we benefit from this solar production pattern by taking advantage of net metering. In essence when you produce more energy than you consume on a monthly bases the utility will provide you a credit, 1kWh produced=1kWh credit. In the summer months you may be able to “bank” these credits on your utility bill, and in the winter months the utility will use your credits first before you are charged for energy used from the electric grid.

The example below represents the information I have just outlined. In Oregon the average home electric bill is \$100/month and for this example I used a system size of 4.70 kW. Each system is designed specifically for the location where it will be installed. In Oregon shading is the nemesis of solar and in most cases over 50% of the homes that want solar are not eligible due to shading and orientation.

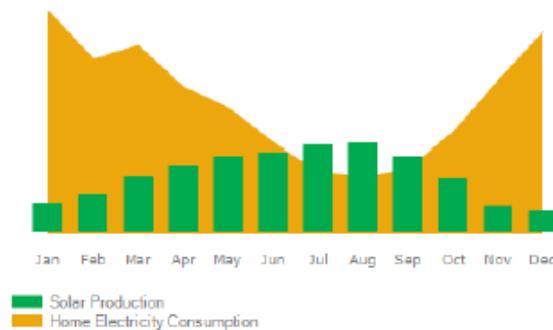
Solar System Design

18 Residence

SYSTEM DESIGN & PRODUCTION

Proposed System Size	4.70 kW DC
Annual Production	5,110 kWh

Solar Production vs. Home Electricity Consumption



UTILITY SAVINGS

Electric
Solar



Old Bill	\$105
New Bill	\$62
Savings First Month	\$43
Savings First Year	\$515
Electric Bill Offset	41 %

Solar Power Purchase Agreement (PPA)

Prior to January 1st 2011, purchasing a system outright was the only option when going solar, typically at a cost of \$20-\$40,000. With the SolarPPA (power purchase agreement) this upfront barrier has been removed and homeowners can have a system installed at no cost and simply pay for the renewable energy they use from the system. From a cost perspective, this energy is usually the same cost or lower than what is available from your current utility provider.

Various SolarPPA options exist, including:

- Pay as you go plan, GO SOLAR FOR FREE and save! May qualify for the \$6,000 State of OR tax credit.
- Custom plan/Pay as you go (\$4,000 and up) qualifies for \$6,000 State of OR tax credit
- Full Prepay (~\$7,000-15,000) qualifies for \$6,000 State of OR tax credit

All systems are designed specifically for your home and pricing varies pending on the installation factors and system size.

SolarPPA Highlights:

- SolarCity pays for ALL service & warranty for 20years (including inverter replacement)
- System is transferable to new home owners if you sell the house
- SolarCity covers ALL insurance on the system
- Lock in the cost of your solar electricity!
- Money Back performance guarantee
- Solar Guard Monitoring included at no additional cost
- You may be eligible for up to a \$6,000 Oregon state tax credits that go directly to YOU.

What's the next step?

- Email or fax a copy of 1 month's full electric bill. (You can get a copy of your bill online at your utility website if you don't have a hard copy)
- Contact Omri Franco to schedule your free solar consultation.
- It is important to send your utility bill prior to your consultation to make our meeting as efficient and effective as possible

Thank you for taking a few minutes to read this. I hope this has given you an understanding of how solar works, the equipment, the savings, and ways to go solar. I look forward to walking you through the process of going solar on your home.

Cheers,
Omri Franco
Solar City Senior Energy Consultant Pac NW
T: 503.944.9585
ofranco@solarcity.com
www.solarcity.com

...and now back to Your Car Matters...

Omri's presentation gives you the general outlines, but you'll probably want to know how this would work for you. [Solar City's website](#) on solar power is something you'll definitely want to check out.

Good luck on your solar adventure!

Automotive Amnesty

Get a 15% break on those services you've been putting off

Every so often, we try to do something to help our clients with the high cost of keeping their vehicles up to snuff. If you've had a list of repair recommendations that's been stacking up on your vehicle then you'll want to hear about this... an offer we're calling "Automotive Amnesty". It's a chance to catch up on those older recommendations and save up to \$300 while you're at it...

The deal is pretty simple. If you have repair recommendations that you've been putting off, schedule to have them done now and get 15% off labor. There are several benefits to jumping on this offer...



- It gives you a chance to clear your conscience of those automotive things you know you've been needing to do
- Fixing these things now frees you up to drive worry-free on your summer road trips
- Scheduling now avoids our seasonal spring / summer rush, ensuring you get the repairs you need at your convenience
- You can save your hard-earned money.

Here's the fine print...

- No minimum purchase required
- You must schedule the work before April 1, 2013.
- The service or repair must have been in your file before March 1, 2013. If you'd like to schedule other work at the same time we'll be glad to do that work too, but the discount can only apply to the old recommendations.
- Offer applies to our labor charges only, not parts.
- Maximum value of the discount is \$300.
- You can't combine this offer with other offers.

So give us a call today and get your vehicle scheduled for service. Automotive Amnesty... a deal so good, we can't do it as a regular offer.

Save Green By Driving Green

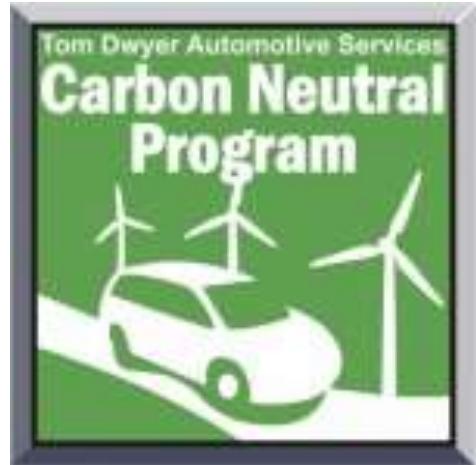
Save 10% on labor charges... oh, and save the planet too.

Many of our clients don't know about one of our shop's proudest accomplishments, a partnership with Bonneville Environmental Foundation to offset the carbon production of our client's vehicles. Since we started our Carbon Neutral Program (CNP) in 2007, members have prevented more than 1.4 million pounds of carbon from being dumped into our atmosphere. Aside from saving our environment, CNP members rest easy for another reason... they save 10% on labor charges here at the shop! Here's how it works...

What are the details of the CNP?

You can choose to sign up for the CNP at any time. Your one-year membership gets you

- Carbon offsets to counteract the carbon output of your vehicle
- 10% discount on labor charges at Tom Dwyer Automotive Services
- A really cool window cling sticker



Cost varies by vehicle type because of the variation in vehicles' carbon production. Hybrids typically cost about \$60, most cars cost about \$100, and guzzlers cost about \$180. Because of our partnership with Bonneville Environmental we can get you these carbon offsets at half price, so **Hybrids cost \$30, most cars are \$50, and gas guzzlers are \$90.**

To make the CNP attractive to everyone we take the 10% discount as soon as you sign up, so if you're doing a repair with \$500 in labor then the labor discount can pay for the membership fee in just one visit!

How do I join?

Just give us a call at 503-230-2300, or talk with your Service Advisor the next time you're in. We'll handle all the details of getting you hooked up with Bonneville Environmental and on the road to carbon-free driving.

Why should I care about carbon?

We know about the threat of global warming, and the possible threats to our coastlines, food production, and even the continuation of life on Earth. This warming is caused by gasses in the atmosphere that trap the heat of the sun like the glass panes of a greenhouse. There are many types of these 'greenhouse gasses', but one of the most prevalent is carbon. It's a by-product of burning, and most of the human contribution to atmospheric carbon comes from burning fossil fuels for power generation, in industrial processes, or our cars. The best current science tells us that the "tipping point", the point at which the damage of global warming will become almost impossible to reverse, is about 350 ppm (parts per million) of carbon in the atmosphere. Currently, we're at 387ppm. To prevent irreversible global warming we have to reduce the carbon output of our society.

How much carbon do I use?

A "carbon footprint" is the measure of net environmental carbon contribution of any activity or combination of activities. This footprint is large (positive) if it adds carbon or small (negative) if it absorbs carbon. For instance, driving your car to work adds to your carbon footprint because you are emitting carbon from combustion. Because almost every human activity produces some quantity of carbon it's almost impossible to

reduce individual or point-source carbon production to zero, but we can be cut our total carbon output to zero (become carbon neutral) by balancing total carbon production with reductions in other areas.

If you want to offset your personal carbon usage (called being “carbon neutral”), where do you start? The first step is determining the size of your carbon footprint. There are carbon calculators all over the web but the one we used breaks a footprint into Home, Transportation (car), and Flight. We used the Average US values, and came up with this...

Home- 16,366 lbs/yr Transport- 10,383 lbs/yr Flight- 5,800 lbs/year (Avg. 4 roundtrip flights per yr)
Total 32,459 (14,723 kg)

...so, the “average” American would need to buy 15 carbon offsets to completely balance out their own carbon footprint.

What are Carbon Offsets?

Carbon offsets are a way for individuals and businesses to fund large-scale projects to reduce the amount of greenhouse gasses released into the atmosphere. The “offset” concept is based on the idea that amount of carbon (or other greenhouse gas) the individual or business produces themselves can be counteracted by funding reduction in carbon in other places. One carbon offset is the reduction of one metric ton (1000kg) of carbon, or its equivalent in other greenhouse gasses (CO₂e). For example, if a power plant can install equipment to reduce 100 tons of carbon then it could create 100 carbon offsets, which can then be sold to fund the equipment. Conservation projects also create offsets; for example tree planting can absorb anywhere from 2 to 48 metric tons of carbon (2000kg to 48000kg) of carbon per tree per year, or 2 to 48 carbon offsets.

Who buys Carbon Offsets?

There are two markets for carbon offsets, the compliance market (cap and trade) and the voluntary market. In the compliance market, created by the actions of the [Kyoto Protocol](#), high-carbon-producing companies are forced to either reduce their own output or buy offsets for that output from other companies. The thinking is that overall carbon production will be reduced, clean companies will be rewarded, and dirty companies will either have incentives to clean up or be penalized for staying dirty. The compliance market accounted for about \$5.5 billion of offsets in 2006, or about 1.6 billion metric tons of CO₂e reductions. The much smaller voluntary market, worth about \$705 million in 2008, is made up of people who are trying to reduce their personal environmental load. Voluntary offsets are available for either an overall lifestyle carbon contribution, or even for individual events like plane flights.

How do I know Carbon Offsets are any good?

Of course, carbon offsets are only as good as the projects they fund. The carbon offset market is new and there has been a lot of fraud, so companies popped up to certify that the offsets being offered were actually cutting carbon. Many now exist, such as [The Gold Standard](#), [The Chicago Climate Exchange \(CCX\)](#), and [Clean Development Mechanism \(CDM\)](#). [Bonneville Environmental Foundation](#), the company we buy offsets from for our Carbon Neutral Program, uses the [Green-E certification](#) to ensure quality. If you’re interested in going carbon neutral it doesn’t really matter which certification you use, but make sure the company you’re buying from has some kind of third-party approval for the quality of their offsets and the projects they’re involved with.

When are Carbon Offsets successful?

Carbon offsets successful when you stop needing to buy them. In other words, they are not a substitute for living as clean as you can. Carbon offsets are only helpful in mitigating the carbon we can’t eliminate, not the carbon we are unwilling to eliminate. If you can reduce carbon in your life, then DO IT! Don’t depend on

outsourcing your own responsibility. However, if you'll be tethered to a carbon producer (like your car) for the foreseeable future then carbon offsets are one way to help you step more lightly on the planet. And our Carbon Neutral Program makes it as easy as possible to lighten your steps.

Drew's Kitchen

Asian-style Peanut Noodles



Last month Drew doused us in the gooey cheese of Switzerland with his Classic Cheese Fondue recipe. This month it's off to sample the opulent offerings of the Orient with his Asian-style Peanut Noodles!

Ingredients

1/2 cup chicken broth	2 teaspoons sweet-hot chili paste (optional)
1-1/2 tablespoons minced fresh ginger root	3 cloves garlic, minced
3 tablespoons soy sauce	8 ounces Udon noodles or spaghetti noodles
3 tablespoons peanut butter	1/4 cup chopped green onions
1-1/2 tablespoons honey	1/4 cup chopped peanuts

Directions

- Bring a large pot of water to a boil. Add noodles and cook until tender according to package directions. Drain.
- Meanwhile, combine chicken broth, ginger, soy sauce, peanut butter, honey, chili paste, and garlic in a small saucepan.
- Cook over medium heat until peanut butter melts and is heated through.
- Add noodles, and toss to coat.
- Garnish with green onions and peanuts.

Shop Talk

Your oil level is YOUR responsibility



We've had some clients return for their 4000 or 6000 mile Minor Interval Service with little or no oil registering on their dipsticks. You may be able to put off doing some other basic maintenance, but nothing causes catastrophic engine damage like running a vehicle out of oil. We want to make sure you avoid this needless expense and hassle.

All vehicles consume some oil. New vehicles lose less, but as your vehicle ages, things can change. It is not unusual for a vehicle with around 80,000 miles to consume as much as 1 quart every 1,000 miles of operation. Oil consumption cause by this engine wear is not necessarily a repairable situation, so increasing oil viscosity and keeping on top of oil level is often your best option.

Vehicles will use less oil at the beginning of their 4000-mile Minor Interval when the oil is clean and the additives are strong than it will toward the end of the interval. Fresh oil is more viscous and slippery; it provides maximum protection and is more resistant to slipping past rings and valve guides. The high temperatures, combustion by-products, and fuel contamination, thin and break down the oil, making it lubricate less and burn more easily. Once oil starts to break down it breaks down more and more quickly. A typical engine may not use much oil in the first 1000 miles of its interval, but may lose a quart or two in the 2000-3000 mile portion, and then be critically low by the 4000 mile mark.

Synthetic oil's lubrication and additive packages do hold up better than conventional oils and are capable of extended use with proper oversight, but the oil filter is not. Oil filters should be replaced at least every 6,000 miles. In addition synthetic oil is no cure for consumption problems and the extended interval recommendations can make it more likely your engine may run out of oil. With car makers extending their recommended oil change intervals to ridiculous intervals and with the added confusion over oil life ratings there is a dangerous, confusing message being sent to owners. We recommend 4,000-mile service intervals for conventional oil and 6,000-mile intervals for synthetics, with regular oil level verifications between services. For more detailed vehicle specific recommendations please ask one of our Service Advisors what is best for your vehicle.

It's up to you to make sure your vehicle has enough oil between services! You don't have to be obsessive, but checking every 1500 miles or so is a good policy. We're happy to check your oil level anytime; just stop by and let us make sure you're good to go. It's an easy check for us to make for you.

If you would like to learn how to check your own oil we are happy to teach you as well, just ask us!

Here's the basic do-it-yourself instructions, or you can [watch a video on it here](#).

- Park car on a flat, level surface to obtain the most accurate engine oil reading.

- Turn the engine off, and let car sit for a few minutes. This lets the oil to drain from the engine into the oil pan so the oil dipstick can get the proper reading.
- Open the hood. Locate your engine oil dipstick, which is normally located on the side of the engine block, and pull it completely out. In newer vehicles it normally has a yellow handle; in older vehicles you might just see a black loop.
- Use a cloth or paper towel to wipe the dipstick completely clean. Reinsert the dipstick completely into the engine.
- Pull the dipstick out once more and check the reading at the bottom tip of the stick. The oil will cling to the dipstick, and will probably fall somewhere between the “full” and “add” lines.

If you need to add oil, that's easy too...

- Unscrew the cap on the engine's valve cover.
- Use a funnel to pour in about half a bottle of oil and then check the level. Repeat until the oil is just short of the “fill” mark so you don't overfill it.
- Keep track of how much you're adding so you can tell us when you come in... excessive oil use could be an indication of serious problems.
- **Make sure to properly install and tighten the oil cap and fully insert the dipstick when you're done!** One of the worst things that can happen is to lose your oil cap and keep driving the vehicle. If the engine continues to operate with a lost or loose oil cap, the best thing you can expect is a big mess and the worst is a new engine. **Check that cap!**

Remember: If you aren't comfortable checking your own oil, just bring your vehicle by and we'll be glad to do it for you or show you how to do it yourself!

Staying conscious of your oil level is cheap insurance for your second biggest investment after your house. A few minutes with this simple check can save thousands of dollars and untold inconvenience down the road.



Your Car Matters Special Extra!

You hear about the damage that can happen if you skip oil changes, but how often do you see it? An article from our January 2011 newsletter called [“Real Life Automotive Horror Stories- NO OIL CHANGES! \(With Pictures\)”](#) is one of our most widely-read articles ever. It's pretty much what the title says, but we've updated it with information on why synthetic oil is better for your car. Check it out... you'll find a picture really is worth a thousand words!

Health Notes

What's good for GM may not be good for you



Genetically Modified (GM) foods aren't popular in Europe, where bans and restrictions are common. Here in the US, we can't even get legislation through that requires companies to tell us when our food contains GM components. Legislation or not, it's seeping into our food supply day-by-day, and there could be very real health effects. Here are two stories that caught our attention on the issue. If you'd like to learn more then the [Institute for Responsible Technology](#) (the source for both of these articles) is a good place to start.

GM Corn diet affects South African farm

On a South African farm growing GM corn, reports indicated that **as many as 1-2 workers died each month while eating the corn as the main staple of their diet**—three times a day. Many of the 50–60 workers fell ill—with flu-like symptoms, headaches, and inflammatory disorders—forcing the farm to employ 20% more people to make up for the sick days.

When the farmer switched to non-GM corn as a desperate attempt to counteract severe animal disorders, the health of both the animals and the workers improved dramatically. When he ran out of non-GM corn and had to use GM corn, the health problems reemerged—until the farmer secured non-GM corn once again.

According to a former Monsanto scientist, when his colleagues discovered that GM corn damaged the health of rats, they hid the evidence by rewriting the study. He was especially concerned that if the rats got sick eating a relatively small percentage of corn in their diet (e.g. up to 33% for 90 days), what does that mean for native Southern Africans who eat corn as the vast majority of their calories every day.

Viral Gene in Genetically Modified Foods Might Promote Diseases

Whenever critics of genetically modified (GM) plants warn that GM crops are inserted with dangerous parts of a virus, biotech advocates rush in to correct their “misunderstanding.” We don't have to worry, they tell us. Only a small portion of a plant virus is used in order to “turn on” the accompanying gene. Called the promoter, it's like an on-switch. They say it's completely harmless. Researchers in Europe finally got around to looking more closely at the genetic sequence from that promoter, and... well... now we can worry.

It's called the Cauliflower Mosaic Virus (CaMV) Promoter and is used in most GM crops to force the foreign gene to pump out their proteins at high volume, 24/7. But the actual strand of inserted DNA turns out to have much more genetic material than it was supposed to have. And this addition might be causing a health catastrophe.

Just beyond the promoter, or more accurately overlapping with it, is part of an actual virus gene. It is sufficient in size and characteristics such that it could theoretically be producing viral proteins. And that would be bad. Viral proteins are well known to suppress defenses against viral infection—for both plant and humans.

In other words, if you eat food from any of the 54 types of GM plants that use the CaMV promoter (including soybeans and most corn), you may be much more susceptible to viral infections, including colds, hepatitis, even AIDS. And because viral proteins can also be toxic to cell functions, genetically modified organisms (GMOs) in your diet might also promote cancer and other diseases.

Crops too can be more susceptible to both viral and bacterial diseases.

But it doesn't stop there. The specific nature of this viral gene, called Gene VI, allows it to switch on multiple genes downstream along the genome. This means that depending on where it is inserted into the DNA, it might produce allergens, toxins, carcinogens, anti-nutrients, etc. And because it is randomly inserted, each of the 54 varieties of GMOs that contain Gene VI carries their own unique and special danger.

Regulation or Abdication?

All this depends on whether Gene VI is, in fact, active. And that remains the question. In the recently published analysis by European authorities, they came to a **definite maybe**. But instead of ordering an immediate withdrawal of the offending GMOs from the market to protect the public, they offered up a flowchart—A FLOWCHART!—to evaluate the unpredicted problems that might have occurred.

According to Virologist Jonathan Latham, “GMO regulators around the world have been complacent and incompetent.” They have had the details about the CaMV promoter even before GMOs were ever approved, but are only now identifying the danger. In their excellent and detailed article about this new development, Latham and co-author Alison Wilson call on regulators to do the only scientifically justifiable thing—Recall GMOs that use this potentially disastrous CaMV promoter.

Evidence of Substantial Harm

Biotech advocates will try to water down the situation, like they've done in the past. They might pull out their often used claim that since there hasn't been any harm seen after feeding GMOs to hundreds of millions of people for more than a decade, we can just ignore these and other findings. But in reality, no one in the world is monitoring the health impacts of these high-risk foods on human health. And numerous disorders, including GI problems, infertility, asthma, allergies, autism, diabetes, and many others, have been accelerating since GMOs were introduced in 1996.

And it may be no coincidence that the popular GMOs that contain Gene VI show significant, even lethal results in animal studies. Roundup Ready corn, for example, caused tumors, organ damage, and early death in rats. Rodents fed Roundup Ready soybeans have been afflicted with sterility, organ damage, accelerated aging, and high infant mortality. And Monsanto's pesticide producing Bt corn has been linked with massive immune responses in mice—among others.

Let's not hold our breath waiting for US and European regulators to actually do their job and remove GMOs. We can support the efforts in 35 US states for mandatory labeling laws. And in the meantime, consult with NonGMOShoppingGuide.com for healthier non-GMO choices.

Sellwood Bridge Update

An explosive Bridge Update!



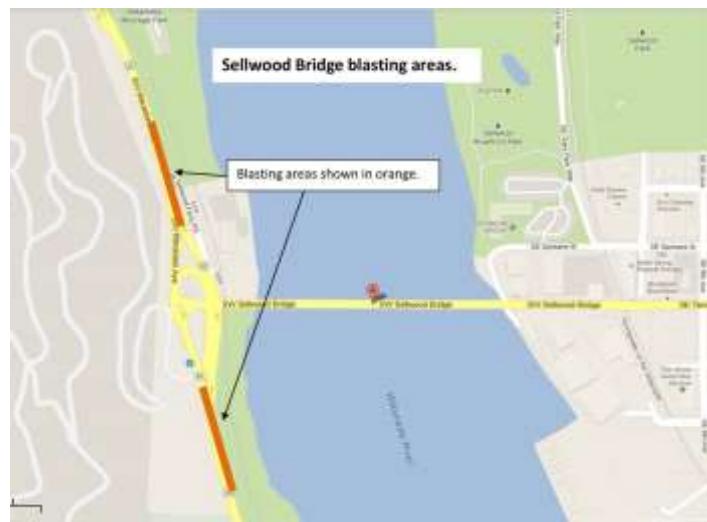
Now that the big Shoo-Fly move is history, construction on the new bridge is settling down to a normal routine. We expected this month's Update would be pretty quiet until we heard about the next step on the West side of the river.

One of the major reasons the bridge needs to be replaced is the damage caused by the hillside on Highway 43. It's basically a slow-motion landslide, and it shoved the West end of the bridge so far that the bridge buckled. If the hillside isn't stabilized the new bridge will suffer the same fate, so stabilization is a major part of the bridge renovation. In addition, the hillside needs to be moved to make room for a new interchange between the Bridge and the Highway.

So now the contractors need to move some rock, and the best way to do that is... explosives. Blasting will take place between 8p and 3a, starting on March 13 and continuing for four weeks. Here's all the details from the county's [Sellwood Bridge Website](#)...

The Sellwood Bridge Project will construct an interchange where the new bridge connects with Highway 43. A half-mile stretch of the highway near the bridge will be rebuilt to modern standards. The current highway is very narrow and constrained by a steep slope on the west side. The highway will be widened by excavating the hillside and constructing retaining walls on the west side of the current lane configuration. In 2014, traffic lanes will be shifted west while the contractor rebuilds the east half of the interchange.

Underground blasting is required to break up rock during the hillside excavation. Here are some common questions the public have asked about blasting.



Why is blasting needed?

Underground blasting is needed to loosen rock that cannot easily be safely removed in its current form.

What area will be blasted?

Blasting will be used to break up rock on the west side of Highway 43 north and south of the Sellwood Bridge, beneath the orange construction zone rope line. More blasting is required north of the bridge than on the south side. The northern boundary for blasting is roughly across from the driveway to Macadam Bay.

How is blasting performed?

A subcontractor will drill holes into rock and set blasting charges. Prior to the blast at night flaggers will stop traffic in both directions on the highway and a warning siren will be sounded before the blast is detonated.

After crews make sure the road is clear, flaggers will reopen the highway to traffic. In most cases, no debris will fall on the road. The loosened material will usually be excavated and trucked away the following day.

How loud will the blasting be? What will people hear?

The warning sound is required to be sounded before a blast occurs. Five minutes prior to detonation an air horn will be sounded at spaced intervals for about one minute. At one minute before detonation, the air horn will sound with shorter spaced intervals for about one minute. The last air horn will sound for about 10 seconds giving notice that the site is clear. The blast itself will last for only a few seconds. It is about as loud as a jet going overhead. The warning siren can be louder than the blast itself.

When will blasting occur?

Blasting will begin on Wednesday, March 13, 2013. Blasting will take place at night, several nights per week. The exact number of blasting nights will be determined by the geology of the hillside, which is not fully known. An estimated four weeks of blasting will be needed. In a typical week, blasting will occur on three weeknights. On a typical night of blasting, two to three blasts will occur. Blasting could start as early as 8 p.m. and go as late as 3 a.m.

Why does blasting happen late at night?

Blasting is scheduled at night to minimize traffic impacts. Multiple blasts per night will help to shorten the total time needed to complete the necessary blasting and to minimize overall impacts to the surrounding community.

How will blasting impact traffic on Hwy. 43 and the Sellwood Bridge?

Flaggers will stop traffic on the bridge and on Hwy. 43 when the siren warning is sounded before a blast. For a typical blast, traffic will be held for 5 to 20 minutes. Most excavation of material happens during the day. Excavation requires flagging and lane closures (the latter during off-peak hours). Travelers can choose an alternate route to avoid delays.

How will the public be informed that blasting will occur?

The project will post alerts about blasting on the variable message signs on Hwy 43, Taylor's Ferry and Tacoma. The project will also announce the blasting schedule on its public website and notify people who have signed up to receive the project's Construction Updates by email. Sign up to receive alerts [here](#).

Who is in charge of the blasting?

The sub-contractor in charge of blasting is McCallum, a firm that has worked in the Northwest for the past 20 years with highly trained, experienced and qualified staff. Blasts are designed by explosives engineers. Safe blasting practices use the latest technology to minimize disturbance to the human and natural environment.

What are the impacts of blasting?

The sound from the blast will last a few seconds and may resemble a sonic boom or a jet traveling overhead. Rock blasting may generate low-level ground vibrations and airblasts (or air pressure) that may travel from the blast site to nearby structures. Inhabitants may feel or sense resulting motions, depending on the structure, its insulation, proximity to the blast area, and the ambient inside noise level inside the structure.

How are blasting impacts monitored?

Each blast hole is loaded with carefully measured explosives topped by crushed rock reduce airblasts. Blasting seismographs will be used to measure ground vibrations and noise generated during blasting to ensure compliance with safe and regulated levels.

What regulations are in place to protect structures during blasting?

All ODOT and OSHA and US Bureau of Mines procedures will be followed. Regulations limit blasting to prevent damage to nearby properties.

The blasting program has been reviewed and approved by a number of public agencies. The blast team must comply with strict safety and security regulations that cover transportation, storage, record-keeping and handling of explosives.

How will blasting impact animals?

Some pets may be disturbed by the temporary warning signs, especially if they are outdoors. You may want to bring pets inside. Watch for their response and reassure them if necessary.

Could the blasting impact the landslide that damaged the bridge?

The project has spent the past year constructing an underground structure to hold back the landslide. Geologists say the blasting will likely not impact the landslide.

Who do I contact if I need more information or have concerns?

Mike Pullen, Multnomah County Communications Office, 503-209-4111, mike.j.pullen@multco.us. To report an after-hours noise complaint, call 503-481-1662



Multnomah County maintains the definitive website on everything related to the Sellwood Bridge Replacement project, www.sellwoodbridge.org. Construction and closure alerts, archived information, and other resources are all available 24/7 for your convenience. Their two constantly updated live webcams of the bridge cams are available [here](#). If you're looking for something that's not on the website, you can contact Mike Pullen (mike.j.pullen@multco.us, [503-209-4111](tel:503-209-4111)) or visit www.sellwoodbridge.org.



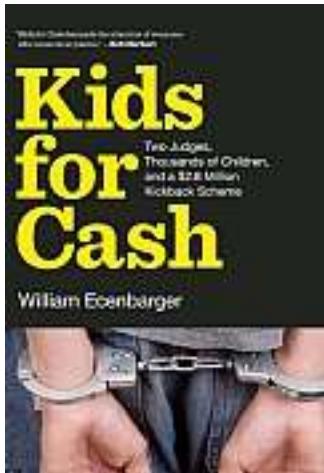
Book Spotlight

“Kids For Cash” by William Ecenbarger



Our “News To Make You Furious” column this month brought you stories about For-Profit Prisons, and the centerpiece example of the problem was the “Kids For Cash” scandal in Pennsylvania. We gave you a couple links to follow, but as you can imagine the story could fill a book. In fact, it’s filled at least one so far. The blinding glare of this month’s Book Spotlight shines on...

“Kids For Cash” by William Ecenbarger



"Pulitzer-winning journalist Ecenbarger spares no detail in recounting how two rural Pennsylvania judges' schemed to incarcerate thousands of kids in a privately owned juvenile detention center in exchange for millions in kickbacks. In famously corrupt Luzerne County, juvenile court judges Mark Ciavarella and Michael Conahan lobbied for the building of a new juvenile detention center. From 2003 to 2008, Ciavarella then funneled thousands of kids — including nonviolent and first-time offenders — into the new center. In return both he and Conahan were receiving millions of carefully laundered dollars. More troubling was the system's abuse of the children (some as young as 11). Local newspaper reports led to state and federal investigations, and the judges were convicted of racketeering. Ecenbarger lays out the details of the case, emphasizing the very human element of the children who were the victims.

William Ecenbarger, a Pulitzer Prize and George Polk Award-winning investigative journalist, previously reported on the scandal extensively in the *Philadelphia Inquirer*. In this daring new book, he takes a hard look at some shocking truths: the trend toward sentencing offenders to for-profit prisons and detention centers; a politicized judiciary where judges campaign contributions often come from those whose profits and livelihoods depend on filling jails and prisons; and a juvenile justice system that is closed to public scrutiny, offers little or no oversight of judges, and allows children to be sentenced without benefit of legal counsel.

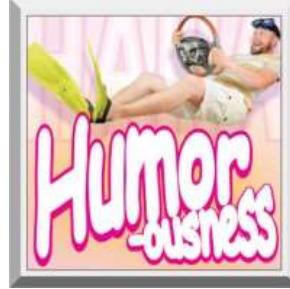
Through deeply compelling personal narratives tied together by an astonishing legal and political controversy that lead to charges of racketeering, fraud, tax violations, money laundering, extortion, and bribery, Ecenbarger explores the larger issues that made this situation possible. *Kids for Cash* will open our eyes to the haunting realities of the juvenile justice system in America.

About the Author

William Ecenbarger was part of a reporting team at the *Philadelphia Inquirer* that was awarded a Pulitzer Prize for their coverage of the Three Mile Island nuclear accident. Once an international correspondent for *Readers Digest*, he has been published in the *Washington Post*, *Smithsonian Magazine*, and other leading publications and magazines. A longtime resident of Lancaster, Pennsylvania, he currently lives in Castine, Maine.

Humorousness

30 glimpses of the real Portland



Last month's "Humorousness" brought you [jokes about Oregonians](#). This month we'll hit even closer to home with BuzzFeed's list of the "[30 most Portland things that have ever happened in Portland](#)". You can probably see even stranger things by just looking out your window, but this list will catch you up on unicycling Gandalf, Bacon Mondays, Hip-hop cellists, chilled alpacas, and more. Do you have a favorite vintage Portland story or picture? We'd love to hear about it. You can share it with the world (or at least our small slice of it) on [our Facebook page](#).



Popcorn Shorts

Cool stuff that's too small for a big article



Just like it says, Popcorn Shorts is about the kind of things we think are really interesting, but don't really need a large article to explain them. From the sublime to the ridiculous, check in here for crunchy bits of info you'll love to munch. Bet you can't eat just one!

[Consumer Reports rankings of 2013's best vehicles](#)



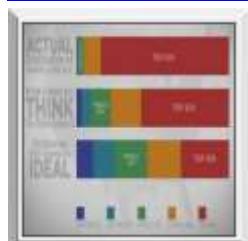
Consumer Reports is famous for their unbiased evaluations of everything from blenders to cars. This year's blender rankings are still secret, but they're out with their list of 2013's best vehicles. From luxury cars to green cars to budget cars and more, if you're thinking about a new vehicle then this is indispensable advice. Spoiler alert- If you're thinking about an American vehicle, you may want to think again. For the first time since 2007 all the top spots were taken by Asian and European manufacturers.

["Love is Respect" helps teens with healthy relationships](#)



Teens dealing with the complexities of relationships for the first time are learning to set boundaries. They're just beginning to understand the difference between caring, healthy behaviors and controlling, unhealthy ones. If your kids aren't comfortable talking with you about their dating, we heard about a website called "Love is Respect" that can offer some guidance. It's full of quizzes, tips, and stories from other teens to help them decide if their relationship is healthy or has characteristics that can become abusive. It's great for teens, but adults can benefit too!

[Income Inequality highlights difference between perception and reality](#)



The Occupy movement brought needed attention to the differences between the 99% and the 1%, but this six-minute video shows that many still don't realize the magnitude of the differences. People were asked two questions- what do you think income distribution is in the US, and what do you think it should be? Estimates of 'where we are' were significantly skewed from ideas of 'where we should be', meaning the basic problem was obvious to everyone. However, the difference between 'where you think we are' and 'where we actually are' was terrifying.

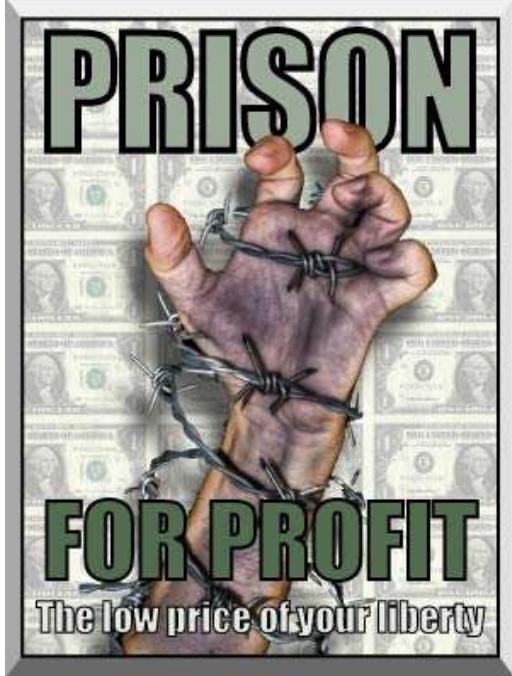
[Bibliophile's hearts are going pitter-pat](#)



One of our most popular features at the shop is our Book and Bumper Sticker Library, so we know that we have a lot of book lovers as clients. If that's you, then this site will give you ideas to make your heart swell. You'll find images from book lovers who have created imaginative and useful ways to store their paper based friends. From creative "shelfless" shelves to almost cathedral-quality bookshelf-lined offices, you'll find inspiration that may help you clean up those stacks in the basement.

News To Make You Furious

Prison For Profit- The low price of your liberty



Profit is great. Enlightened self-interest is a spectacular motivator that drives our economic system. Nothing incentivizes a behavior like making it profitable in one form or another.

But here's a blasphemy... profit is not the only good in our world. Other things are important as well, and some may be even more important than profit!

Liberty is one of those things. Short of life itself, nothing is as valuable to a human being as liberty. It's so important that the power to send people to prison is limited to our government, and then only after a complex due process. "Justice", as this quaint idea was once called, is one of the six things our founders said our country was created to establish. So what happens when it becomes profitable to deprive people of their liberty? When liberty clashes with profit, which one wins?

Get ready... the answer just might make you Furious.

[The Luzerne, Pennsylvania's "Kids for Cash" scandal](#) was uncovered in 2007. Judges Mark Ciavarella and Michael Conahan were receiving millions of dollars in kickbacks from two for-profit youth detention centers to sentence juveniles to their facilities. This is from Pennsylvania's [Juvenile Law Center](#), one of the groups that broke the story...

"The scope of the violations of the children's rights in Luzerne County turned out to be more egregious than anyone could have imagined. From 2003 to 2008, the Luzerne County judicial corruption scandal altered the lives of more than 2500 children and involved more than 6000 cases. Over 50 percent of the children who appeared before Ciavarella lacked legal representation; 60 percent of these children were removed from their homes. Many of them were sent to one or both of the two facilities at the center of the corruption scandal."

And this...

"Shackling compounded the trauma that a corrupt juvenile court inflicted on the children in Luzerne County, Pennsylvania. [Hillary](#)—whose "conviction" for a MySpace parody of a school official started Juvenile Law Center's 2007 investigation into Luzerne County practices—was shackled and dragged from the courtroom after a two-minute hearing. She had never before been in trouble. She presented no physical threat. She was not a threat to flee. Hillary was not alone—the shackling in Luzerne County is just one of many examples of the daily state-sanctioned maltreatment of children in jurisdictions across the country."

If you're interested in the Luzerne tragedy, [this page from the "Legal Intelligencer" has a great series of stories](#) that will give you all the details. You may also "enjoy" this month's Book Spotlight, "Kids for Cash" by Pulitzer winning journalist William Ecenbarger. But don't worry, the wholesale theft of liberty isn't limited to kids... we adults get to play too. Here's way too many links to a variety of stories about the problem...

We like to think we bring you stories that are being overlooked, but the private prison industry has caught the attention of other news outlets. Here are two excellent documentaries about it...

- PBS's "NOW" covered the issue in their May 2008 program "Prisons for Profit". [This link takes you to their show page](#) with video, transcripts, and other resources.
- Another PBS program, Religion and Ethics Newsweekly, has [a short video on the issue](#).
- CNBC's program "Billions Behind Bars" is from October, 2011. Here's a [summary of the show with a few web extras](#), and [here's a link to watch it on Hulu](#).

Who's Fighting Back?

There aren't many groups specifically organized against this issue. Groups like the [ACLU](#), [Amnesty International](#), and even [Occupy](#) address it among the other issues they deal with. Here's a link to the [Private Corrections Working Group](#), a small group solely dedicated to the issue. If this issue moves you, then their website has everything you'll need to get involved.

New Jersey Governor Chris Christie is having his image tarnished by his [involvement with his friend and contributor's halfway houses](#). Massive escapes, unqualified supervision, violence, drugs, the whole nine yards.

The New Orleans Times Picayune has an exposé titled "[Louisiana is the world's prison capitol](#)". Yes, you read that right- the WORLD's prison capitol. "Freakonomics" a frequent contributor to NPR, [added several infographics that really bring the story home](#).

From John Whitehead in the HuffPost Crime blog: "[Jailing Americans for profit: The rise of the prison industrial complex](#)"

Suevon Lee on ProPublica give us "[By the numbers: The growing for-profit detention industry](#)", an extensive fact sheet on the money and players in the industry.

In October 2012, [the federal government's Justice Department filed a lawsuit](#) against the state of Mississippi and various government bodies in the city of Meridian for policies very much like those at issue in Luzerne County. In the complaint, the Justice Department claims the Meridian school district developed new policies to call the police and have students arrested for "crimes" such as using profanity, disrespect and failing to obey a teacher's directions.

The ACLU has started [a section on their website about the threats posed by for-profit prisons](#), and as usual they have the stats and stories to back up their position.

From Andreal Nill Sanchez on Think Progress- [Private prisons spend millions on lobbying to put more people in jail](#).

Corrections Corporation of America is the largest private prison company in the country. In 2011 they make enough profit on it to spend over \$300K on campaign contributions and \$1.56M on lobbying. [Here's the breakdown](#).

From Dina Rasor on Trughout- [Prison Industries: "Don't let society improve or we lose business"](#)

CCA's the biggest, but they aren't the only prison-for-profit company. Here's [a story about the fine work being done in Mississippi by GEO Group](#), the second-largest private prison operator in the world. "The lawsuit detailed monstrous abuses by GEO staff — including peddling drugs to the teenagers in their custody and subjecting them to brutal beatings, sexual exploitation and solitary confinement."