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# Our Failing Future- Are Things Really That Bad?

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Fortnightly Club of Redlands



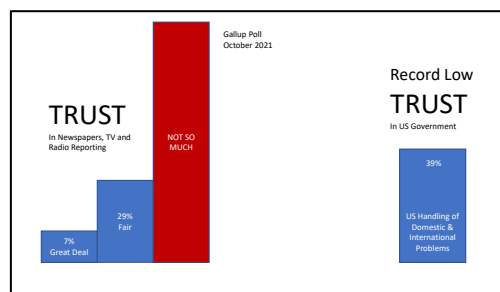
NOVEMBER 4, 2021

RON BURGESS  
Meeting 1954

## Our Failing Future- Are Things Really That Bad?

Headlines from recent media include: “Only 11 Years Left to Prevent Irreversible Damage from Climate Change”, 73<sup>rd</sup>, General Assembly High-Level Meeting on March 28, 2019, (so that means just 8 1/2 years left to go). The Washington Post reports, “Extreme Poverty Returns to America”. Forbes Magazine says “U.S. Lost Over 60 million Jobs—Now Robots, Tech and Artificial Intelligence Will Take Millions More”. “The rich-poor gap in America is Obscene”, by The Guardian. “Gas Giants: Can we stop cows from emitting so much methane?” an article just last week on PhysOrg’s online journal.

Between natural disasters, hunger, political gamesmanship, China’s military buildup and other over reaching news stories, one should assume the fetal position and wait for the apocalypse. Add to that, new made-up pronouns to refer to certain self-assessed folks of over 29 “orientations”, and a few riots and burned-out buildings curtesy of Antifa and Black Lives Matter and general



anarchists. One might actually hope the apocalypse will come right away. Covid has certainly added fear for many people around the world. Now variant Delta could be construed as a continuing new threat.

Are things really all this bad? I decided to start collecting real data to do my own fact checking as I certainly can’t trust the main stream media to do it anymore. I’m not alone. A Gallup Poll in October of 2021, indicated that just 7% of US adults have a “great deal” of trust and confidence in newspapers, television and radio reports<sup>i</sup>. Twenty-nine percent say a fair amount of trust. So two thirds of us are not so sure.

Trust of government is down too. Gallup recently reported:

- Trust of the federal government's handling of international problems has fallen nine percentage points since last year to a record-low 39%, and now matches the level of trust for its handling of domestic problems -- one of only a few times that has occurred<sup>ii</sup>.

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“Ten Global Trends Every Smart Person Should Know”, by Ronald Bailey and Marian Tupy in 2020 cite a study by YouGov, that asked “smart” people if the state of the world is getting worse rather than better? The results were that 58 percent thought things are getting worse, 30 percent neither and just 11 percent thought things are getting better. In the “smart” well informed US, it was worse, only 6 percent thought it was getting better.

So if the smart people who agree with the headlines, we are in a world of hurt. Right! I still am not completely ready to assume the fetal position in the corner. After all, I can easily see how I live and compare my life with my own grandparents. And many things are very much better; fresh water in the kitchen, toilets in new bathrooms, air conditioning, wonderful cars, and very cheap travel. My grandparents never saw either ocean let alone Europe. I have been in 48 states and dozens of foreign countries. Clothing and shoes and food are much less expensive than then as a percent of total income. Add the wonderful hot shower to that. As I consider this paper while thoroughly enjoying a long hot shower, I realize that my new tankless water heater will provide an endless stream of comfort. The small amount of natural gas and clean Redlands water costs me just a few minutes of work a month. I can select one of two showers or a bath depending on my mood. I still remember my cousins getting their Saturday bath, with water heated on the stove. Neither of my grandparents ever really achieved this luxury even though they were upper middle class. It was reserved for the very wealthy in their day. So what gives?

Let's start way back with some fundamentals.

Man has worked for millennia to achieve the basic needs of life, food, water and shelter. They battled the elements, fought disease and died young. Women would bear many children to have just a few survive to adulthood. Men fought each other over hunting lands, women and squatting rights. Archeologists know this by the number of skeletons with wounds, and children's bones, and tell-tail signs of their diseases in bones and teeth.

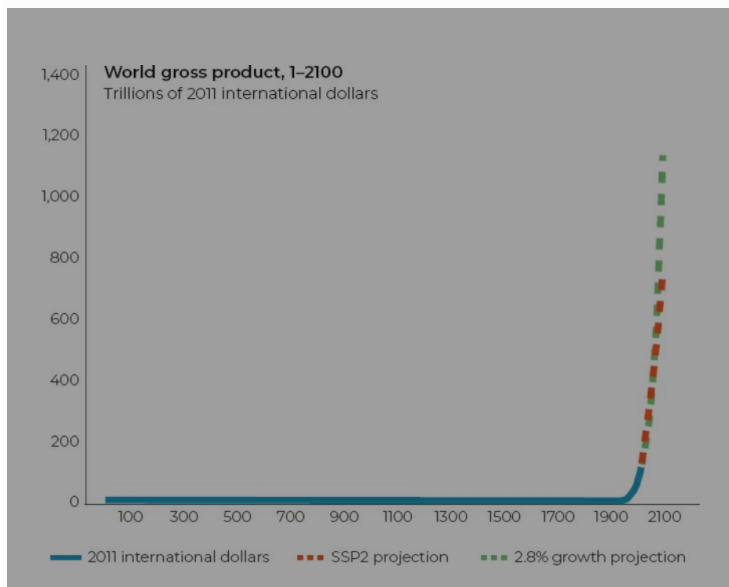
While clans may have had some social life around the fire with flutes and dancing, many suffered nightly in the cold and lived with pain from injuries and sickness. It was not a life most of us would enjoy, but they didn't understand anything different. Dying young was expected. Only a very small number lived longer than 35, and by 40 they dealt with all sorts of maladies.

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But just like us, they did understand when a tool made their task easier, or appreciate a new technology from a nearby tribe that they regularly traded with. When comparing my daily exquisite shower, to a cold, dangerous night in the wind and snow on an empty stomach, (and perhaps a big cat with an empty stomach) it seems clear that things can't really be so bad as our friendly journalists would have us believe.

When trade started in earnest, the diversity of material things were greatly increased, as craft turned to specialized skill the economy was born. Since 1820, the size of the world's **economy** has grown more than a hundredfold, while the world **population** grew just less than eight-fold. This mean's as an aggregate we all had more material goods. From 1500 to 1820 the gross product grew at about .03 percent per year. Since 1920 it has averaged more than 3 percent per year. This makes an impressive difference when measuring world standard of living.

Life and well-being is not completely about material things, but material things also include better medicine and technology for healthy lives, too. This also provides a certain foundation for mental well-being. Staying sane is easier if one has a meal and safety from tyranny. Life is more pleasant when toil is turned to productive work.



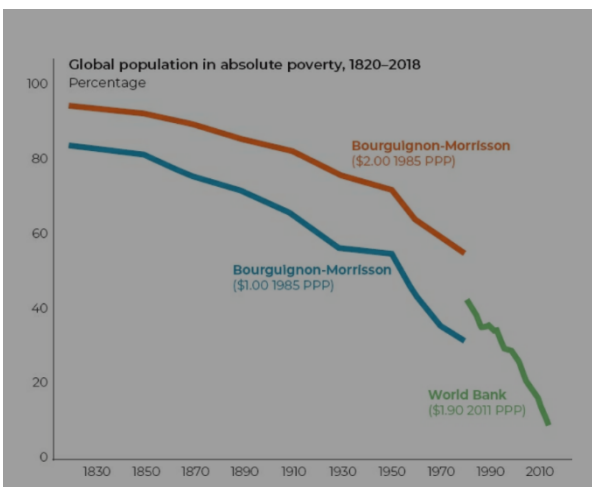
Sources: Angus Maddison Project Database 2010 and 2018; World Bank, "Global Gross Domestic Product, Purchasing Power Parity" chart.

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Bailey, Ronald; Tupy, Marian L. (2020-08-30T23:58:59). Ten Global Trends Every Smart Person Should Know . Cato Institute. Kindle Edition.

This trend in increasing productivity boosted world gross product to more than \$121 trillion by 2018. The Intergovernmental Panel on Climate Change (IPCC) expects global growth will average about 2 percent but if it hits 2.8 percent (its average since 2000), the increase would be almost tenfold to \$1.1 quadrillion by 2100. In other words, there are many more resources to fix things, build buildings, feed the poor, and even work on global warming.

But some would quickly say that the rich have all the wealth and it doesn't benefit the poor. Not so. In 1820, eighty-four percent of the world lived in extreme poverty, less than \$1.90 per person. In 1990, just 30 short years ago, about 1.9 billion (over 1/3<sup>rd</sup>) of the world's population were still in extreme poverty. In 2020



that estimate dropped to about 600 million. At the current economic growth, it is not unrealistic that just 5 percent will be in extreme poverty and the United Nations has set a goal of eradication of poverty by 2030 if we can maintain economic growth.

Not only is the percentage of poor declining, access to basic standard of living measures are increasing. It is true that a small number of wealthy people possess much more wealth but the poor have more too. In the 1950's following the war, growing affluence really took off. Compared with our previous three hundred years (and thousands before then), the decade of the 1950s was extraordinary. Infant mortality by then was already lower than it had been in France and Germany in 1900<sup>iii</sup>.

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Japanese children had almost twice the number of years of schooling than fifty years before. World income had doubled compared with the fifty years before. John Kenneth Galbraith declared that the affluent society had reached such a pitch that many unnecessary goods were now being “overproduced” to consumers by persuasive advertisers. Perhaps he was right, but most of us would say now that how we lived in the 50’s was dim compared with now. By 1955, eight out of ten American households had running water, central heating, electric light, washing machines, and refrigerator. How many here want to get rid of these “luxuries”. Only a very few had them in 1900. According to Matt Ridley, author of *The Rational Optimist*, the 1890 classic, “How The Other Half Live”, Jacob Riss, found a family in New York in a 10 foot square with seven kids. Women made 60 cents a day working sixteen hours and were still unable to have more than one meal a day.

Ridley says, that looking back, another fifty years later, the middle class of 1955, would be described as below the poverty line. Of the officially designated as poor, today, 99% have electricity, running water, flush toilets, and a refrigerator. 95% have a television, 88% have a telephone 71% own a car, and 70% have air conditioning. Considered “basic” today, Cornelius Vanderbilt had none of these. I didn’t air conditioning until 1983. In 2005, 90 % of “poor” households did<sup>iv</sup>.

Along with our wealth we are seeing the “poor” standard rising too. In fact we measure standard living of the poor, based on a percentage of average, so statistically we will never get everyone out of the poor house in the US based on this kind of measure. Many of our homeless live much better than I have seen in Indonesia where a card board box with plastic over it serves as the waterproof, popup and camping equipment of our homeless.

We see headlines declaring that natural gas prices will double, and of course we know electric power has increased so much that we have to buy solar panels to control the costs. But over two centuries mankind has advanced through innovation and at the same time reduced prices to unbelievable levels. Food, clothing, and fuel have grown markedly cheaper. For the average family, many of these cost much less as a percentage of income than 120 years ago. A half-gallon of milk cost the average American ten minutes of work in 1970. But only seven minutes in 1997. The average phone call coast to coast in 1910 cost 90 hours of work, today its, well

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perhaps a couple of minutes, (well its free) but I'm including the amortized cost of a smart phone too. In the 1950's a McDonalds cheeseburger took 30 minutes, of work, today its just 3 minutes. Somehow, they taste better at 3 minutes.

Today we couldn't get by without artificial light. In monetary terms, prior to the 1600's in England the same amount of artificial lighting was 20,000 times more than it is today.

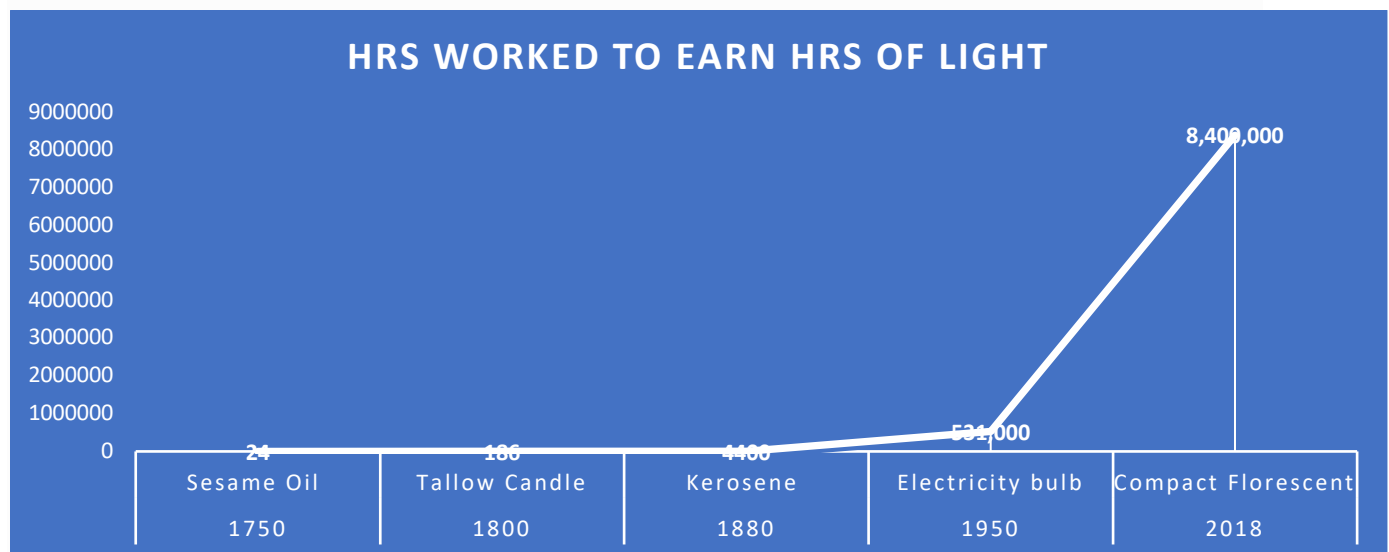
In 1750 BC one hour of work would buy 24 hours of a sesame oil lamp light.

By 1800 tallow candle light was 186 hours for one hour of work.

By 1880 kerosene light was 4400 hours for one hour of work.

You could buy 531,000 lumen-hours with electricity by 1950.

Today one hour of work buys 8.4 million lumen-hours using a compact florescent bulb for an hour of work.

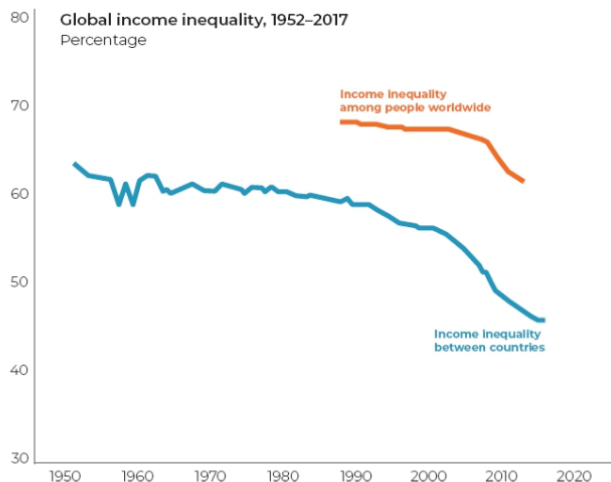


Of course, as the cost of light, went down over the centuries, we could afford more and buy something else we needed with the extra time. One of those things is shelter. While soaring housing prices have dampened home sizes recently, over time homes are huge by comparison. Most lived in houses we would call shacks prior to 1900. By 1950 the average new house was 983 square feet. By 2015 it had grown to 2740 square feet<sup>v</sup>. It has fallen during the last few years to just over 2500

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square feet. This is not the whole story though, because family size has fallen from 3.3 in 1960 to 2.5 today. So each person in America has about 20% more space to live in. Housing is up but so is standard of living space<sup>vi</sup>.

Well, we can say, that is because the average is increased because the rich have so many large houses. Sure they do, but overall the so called increasing wealth gap needs some further review like so many of the media hypes. The Global Inequality Inequity coefficient (or Gini) measures income inequality on a scale. It looks at a range of income gaps on an index from 1 to 10 based on a population weighted average of Gini values for all countries. It is true differences exist between rich and poor<sup>vii</sup>. Measuring it is tough though but this tries to show comparisons and trends. By this method, this gap seems to be waning. As the index gets lower it is moving toward smaller gaps.

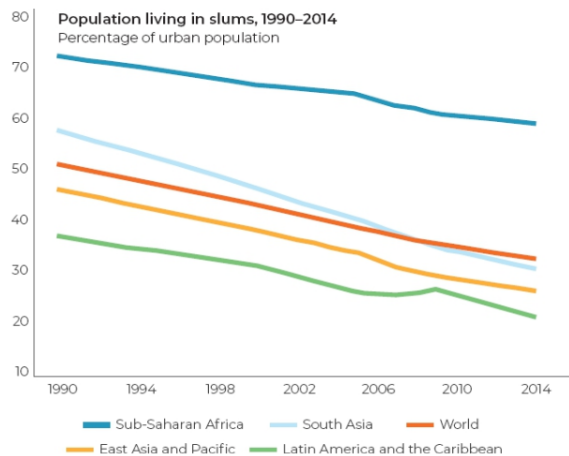


Source: Branko Milanovic, personal communication with the author (Marian L. Tupy), July 12, 2019.

Easier to understand and measure is a snapshot of urban living in slums. Based on a chart from the World Bank, you can see that the percentage of people living in slums is in decline since at least 1990. Those living in a slum has declined worldwide from 50 % to about 35%. This is an enormous improvement in just thirty years. The actual total number living in slums is increasing in absolute numbers due to urbanization around the world. Rising incomes are expected with this urbanization, and governments are working on increasing availability of clean water and improved sanitation<sup>viii</sup>. Incomes generally rise as peasants move to urban areas.



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Source: World Bank, "Population Living in Slums" chart.

Oh, but our population will reverse this trend, some of you may be inclined to say. Like many of you I read "The Population Bomb" by Paul Ehrlich about 1968. It calculated that our population would run out of food due to our arable land diminishing and being over farmed, that we would be in a worldwide famine in the 1980s. As a young college student, I was truly taken by what seemed to be an inevitable (some might say inconvenient) truth. My wife and I seriously considered if we should bring children into such a horrible world.

But Ehrlich was completely wrong on several counts. In fact, our population has been well fed with starvation dropping rapidly, and unlike the "bomb" he predicted our population is actually expected to drop after it hits a peak at 10.9 billion before this century is out. It turns out that as women become educated, they have fewer children. Modern medicine keeps more alive so they see they need fewer to have some survive into adulthood.

The general trend then is we are working far less for more. Rarely do headlines say we are working just 1720 hours a year when our fathers worked 2150 hours a twenty percent reduction.

Meanwhile material things just keep getting cheaper razing our standard of living even more.

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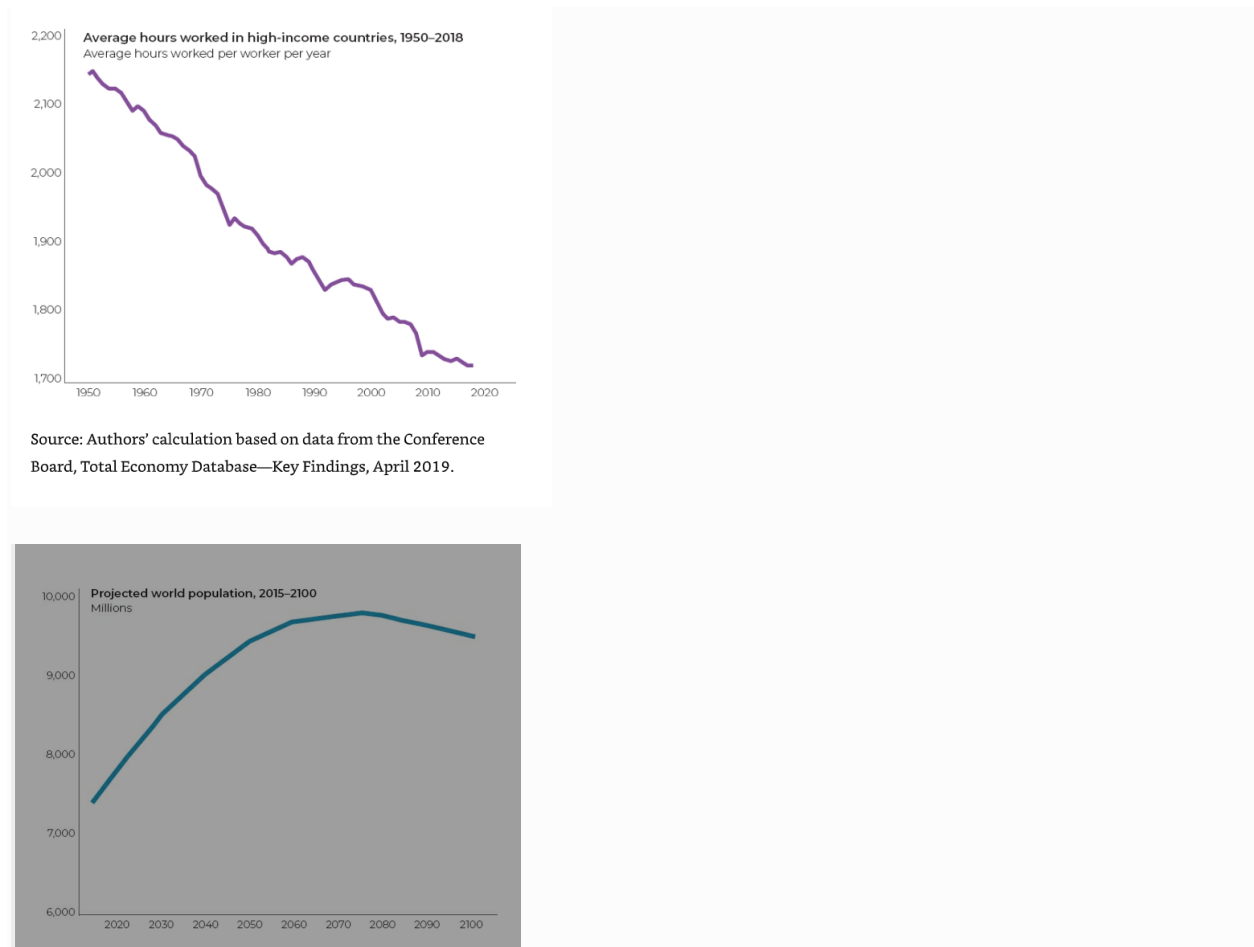


Figure 1 Sources: Wolfgang Lutz et al., eds., "Demographic and Human Capital Scenarios for the 21st Century: 2018 Assessment for 201 Countries," European Commission Joint Research Centre, 2018, p. 8; UN Department of Economic and Social Affairs, *World Population*

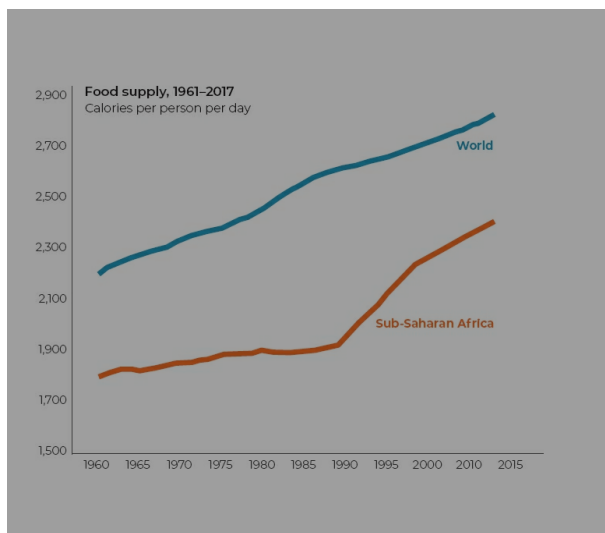
This population peak is expected to happen even while famine declines. Of course, it is a prediction, much like the same predictive models of climate warming. Since 1961, global average food supply per person per day rose from 2196 calories to 2962 calories<sup>ix</sup>. In other words, "the world's poorest population enjoys access to food that was roughly equivalent to Portuguese in the early 1960s"<sup>x</sup>.

Bailey and Tupy write "In his 1968 book *The Population Bomb*, Paul Ehrlich, from Stanford University, wrote: "The battle to feed all of humanity is over. In the 1970s hundreds of millions of people will starve to death in spite of any crash programs embarked upon now."

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Peter Gunter, a North Texas State University professor, wrote in 1970, “Demographers agree almost unanimously on the following grim timetable: by 1975 widespread famines will begin in India; these will spread by 1990 to include all of India, Pakistan, China and the Near East, Africa. By the year 2000, or conceivably sooner, South and Central America will exist under famine conditions....By the year 2000, thirty years from now, the entire world, with the exception of Western Europe, North America, and Australia, will be in famine.<sup>xii</sup>”

However in the '70's the food supply in 34 out of 152 countries surveyed amounted to fewer than 2,000 calories per person per day. That was true of only 2 out of 173 countries surveyed in 2017. Today, famines have all but disappeared outside of war zones<sup>xii</sup>.”



Source: FAOSTAT, Food Balance Sheets website, UN Food and Agriculture Organization, January 27, 2020.

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What did Ehrlich miss? Agricultural productivity greatly improved due to scientific farming, automation, and better fertilizers. Now modern farms use GPS and driverless tractors and disease resistant plants and drones that can tell them where more is needed. My farmer grandfathers could have never imagined these improvements, apparently Ehrlich couldn't either. Of course, my grandfathers

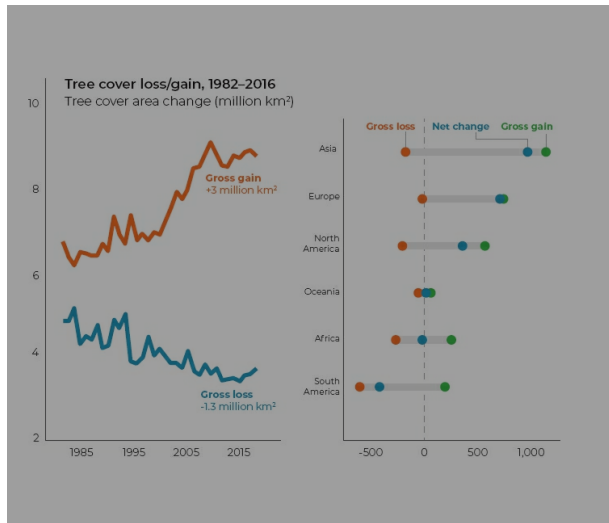
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would have never attempted to write about forecasts. They had too much faith in progress. You see both of them grew up using horses to plow. They lived to see jet airplanes, something no one foresaw when they were born either. They could see these improvements themselves during their lives.

Ehrlich wrote a dangerous book. If government had acted on “over population” would the eugenisests be in charge today? Forecasting can be dangerous. Efficiencies in the economy drove the time worked ration down so demand for food, including the poor went up. Farming got better because innovation happens when more money is to be made. When you want to save something, use more of it. CNN founder Ted Turner successfully did this with the bison an endangered species when I was young. By opening restaurants primarily serving “Buffalo” meat, he created a demand to raise Bison. Today we have over a half million bison in the US, (of course all producing dangerous methane!)

It has been said that food is grown for all those hungry mouths at the expense of our forests. Of course, forests must be increased to we can absorb more CO<sup>2</sup>. My brother-in-law, head of Oregon State Forestry Department assured me decades ago that we had more forests in the US than when the pilgrims landed. University of Maryland reported in Nature (2018) that the global tree canopy increased by 2.24 million square kilometers (about 865,000 square miles) between 1982 and 2016. For perspective, that is the size of Alaska and Montana combined. Satellite data have tracked these gains and report that the forests in temperate, subtropical and boreal climatic zones are actually offsetting declines in the tropics. Apparently warmer temperatures and more CO<sub>2</sub> enables trees to grow higher on mountains. Imagine that!

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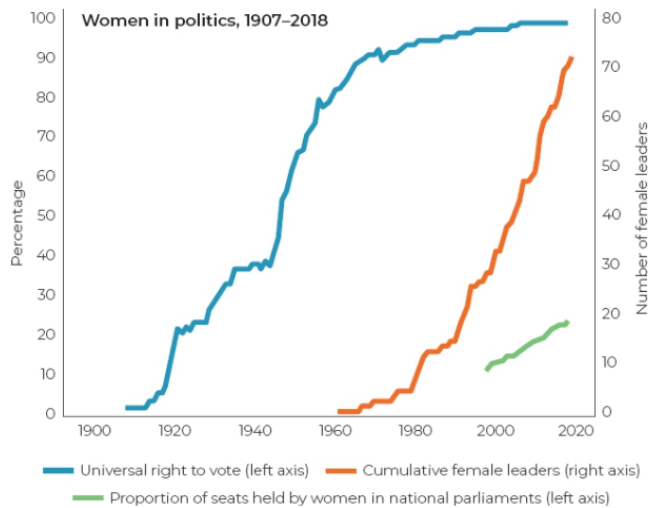


Source: Xiao-Peng Song et al., "Global Land Change from 1982 to 2016," *Nature* 560, no. 1 (2018): 639.  
Note: km<sup>2</sup> = square kilometers

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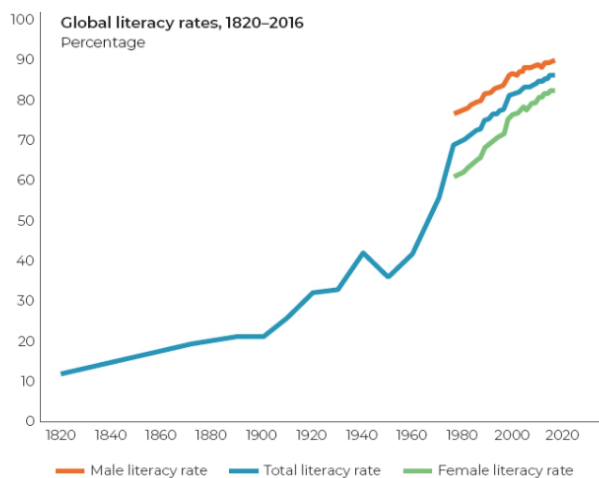
Its not just economic or absolute necessities that are increasing, we are also seeing better education levels and women's empowerment. Two measures of many to consider is the number of women in politics and voting rights. While many other obstacles remain in many countries, voting rights are approaching 95% worldwide according to the World Bank. Another predictor of rights to come is the number of women in government. Both are exploding by historical standards.

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Sources: World Bank, "Proportion of Seats Held by Women in National Parliaments" chart; and Our World in Data, "Share of Countries Having Achieved Different Milestones in Women's Political Representation" chart, 2017.

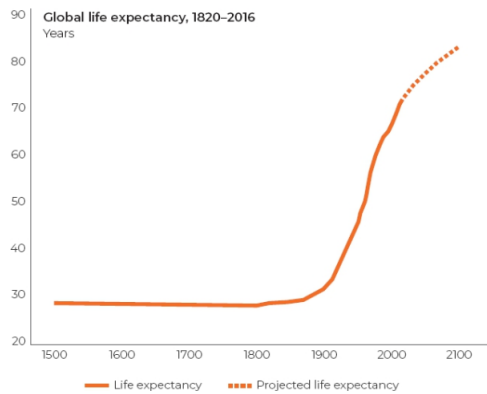
Literacy rates have gone up to a level many of us never expected could happen 40 years ago. Global literacy was reserved for the richest 10 percent in 1820. But today the entire world approaches 90%. What a flip flop! The steepest incline has been since the 1960s. With today's global internet connections these people have access to 99% of the world's knowledge-just a remote dream in 1995.



Source: World Bank, "Literacy Rate, Adult Total" chart.

Life Expectancy is rising.

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Sources: For 1500–1950 data, see Angus Maddison, *The World Economy, Volume 1* (Paris: OECD Development Centre, 2006), 33, table 1-5b; and for 1951–2016 data, see World Bank, *World Development Indicators*, “Life Expectancy at Birth, Total (Years)” chart.

We are living much longer too. This is due to incredible distribution of health science around the world. Many are getting access that was unimaginable a few decades ago contributing to life expectancy. Fewer children die young. Premodern societies are estimated to have a child mortality of about 300 out of every 1000. By 1900, infant mortality rates fell to 140 per thousand. Today this number is closer to an incredible 8 per 1000 according to World Bank<sup>xiii</sup>.

Vastly fewer children die young, mothers are living longer, vaccines are saving lives, HIV/AIDS is being better treated, tuberculosis detection is up, and the treatment success rate is too. Malaria death rate has dropped from a high of 14 to 8.3 per 100,000. Cancer death rates are down to 135 per 1000 from 163 in 1990.

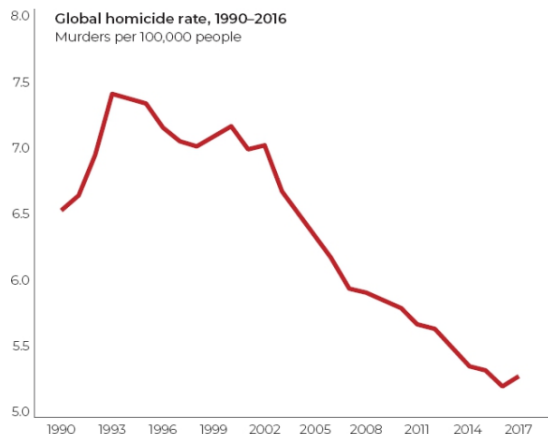
It is clear from these statistics that quality of life has risen dramatically around the world in the last several decades, removing us from the age-old life span of 30 to more than 70 depending on the country. The medical and health community have removed many of life’s miseries as well and increased the length of it.

But there is more!

Despite the TV coverage of killing, mobs, war and gang violence, overall violence is way down too. Murder is not so fashionable. In 15<sup>th</sup> century England, the homicide rate was about 24 per 1000. Dutch and Swedish homicide rates were

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between 30 and 60 per 1000. Fourteenth century Florence despite the artistic creativity of the 16<sup>th</sup> century, was 150 homicides per 1000. Today the intentional homicide rate in all these countries is just 1 per 1000. Half of all homicides occur in just 23 countries.



Source: Institute for Health Metrics and Evaluation, "GBD Results Tool; Measure: Deaths and DALYs; Age: All Ages; Year: 2017; Cause: Total All Causes; Location: Global; Sex: Both; Metric: Number, Percent, and Rate," Global Burden of Disease Study results, 2018.

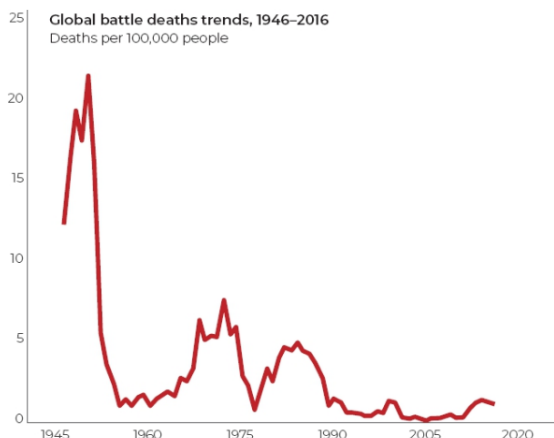
Likewise, battle deaths have dropped since World War II despite what may seem like continuous war. A high of 20 per 1000, has dropped to just a few. If we can avoid conflict that leads to our massive destructive capabilities, war by conventional measures seems almost over.

One of man's worst legacies is genocide. But compared with the seventies we seem to be on the right track. Genocide has dropped from 50 to almost 0 per 1000 since then.

Mass killings of unarmed civilians has been practiced in all periods of history from Biblical accounts to classical ones in Athens and Rome. Just 100 years ago the Armenians were massacred by the Turks not to mention the German killing of 6 million Jews. The near disappearance of genocide may be one of mans true triumphs. While it is still possible, we can appreciate its near disappearance now.

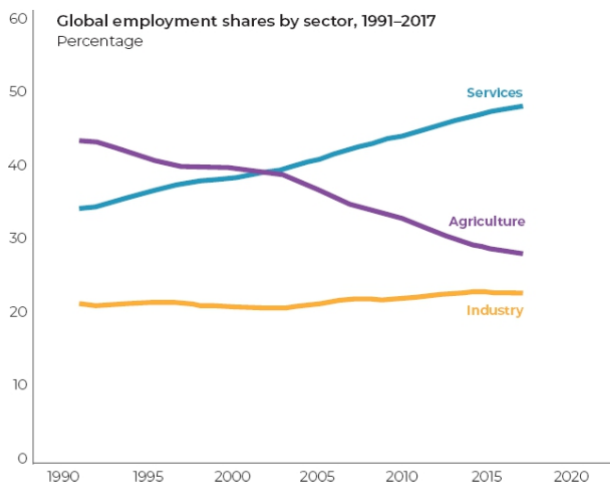


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Source: UN Sustainable Development Solutions Network, "SDG16 Data Initiative: 2018 Global Report," July 2018, p. 5.

We continue to grow productivity per person as evidenced by this chart. Productivity is one of the measures of output per work unit. This is a direct driver of more goods, at lower prices while allowing increasing wages for workers.



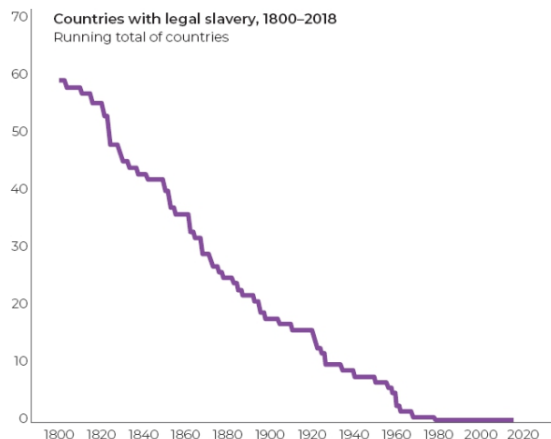
Sources: World Bank, *World Development Indicators*, "Employment in Industry (% of Total Employment) (Modeled International Labour Organization Estimate)" chart; "Employment in Agriculture (% of Total Employment) (Modeled ILO Estimate)" chart; and

The World Bank chart shows that fewer of the world's people farm for a living. In 1990, 44% of us were needed to grow the world's food. This is now below 30%

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and just 2% in America. We have the luxury of spending on services that make life better. About 50% of us do not do hard labor, up from just 33% in 1990. Those who make all of our material goods remains at about 20%. Think of it, less than 1/5 th of us will be making worldly goods for all of us and modern manufacturing automation is just beginning.

Of course, for all of our history, taking the productivity from a person, slavery, enriched slave owners while stealing the slave's labor. We know it has existed for at least for millennia and it probably existed back to prehistoric times. One of our proudest accomplishments is the very near elimination of institutional slavery. While it is still a raw scab to some, and a daily conversation on the news, the reality is that is for all intents and purposes gone.



Source: Steven Pinker, personal communication with author  
(Marian L. Tupy), July 16, 2018.

Of course, we are far from saints. We still have many types of servitude, the sex trade, underground slavery, gangs that require control and abuse, and dominated women by husbands. No doubt many other human indignities exist that still need work. But still, ending institutional slavery should be celebrated, but its hard to tell from the media.

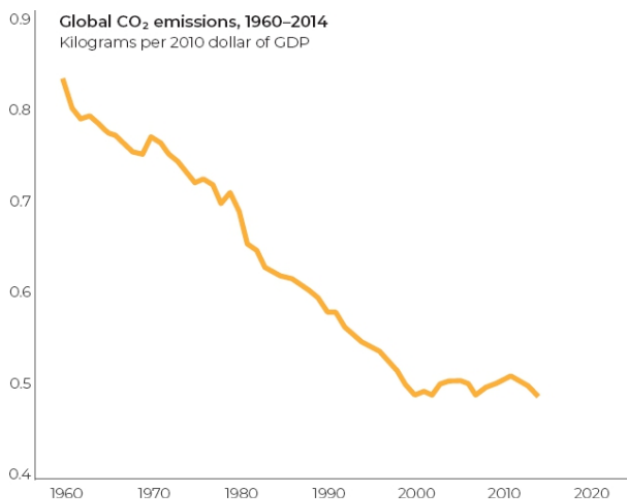
Nuclear holocaust excepted our progress is hard to deny when seeing this type of information, much of which I had to leave out of this paper. However, some believe our demise could come from global warming. Of course, warming has

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been happening since the last ice age. It is expected to continue, naturally. Many also buy the notion that it is man made and we can do something about it. While I can't find definitive evidence (and I do not count "models" as evidence), there is good news even on that front.

It is true that hydrocarbons can be polluting when handled poorly. It seems plausible that CO<sub>2</sub> traps heat. But it is not true that farming is killing all our trees, any more than paper bags do. We have lived through many levels of hype that are just plain wrong. We should beware of climate hype too. Some is right and some is wrong. It is also probable that more CO<sub>2</sub> is growing more crops and trees, just as it is true that lumber in houses, traps CO<sub>2</sub>, and landfills do too, plastic. Farmland reported by UN Food and Agriculture Organization peaked in 2000 at 12.2 billion acres. (yes a model so use caution). If we stop eating meat, another 633 million acres will be restored to nature by 2060. (I'm not sure it is worth it though!)

Even so, warming non-deniers take heart, The World Bank says we have reduced CO<sub>2</sub> emissions steadily in kilograms per 2010 dollars of GNP from .8 to .5 since 1960. Now it is true that the absolute number of kilograms has not dropped except in recessions. But a 41% reduction in carbon output is dramatic even so.

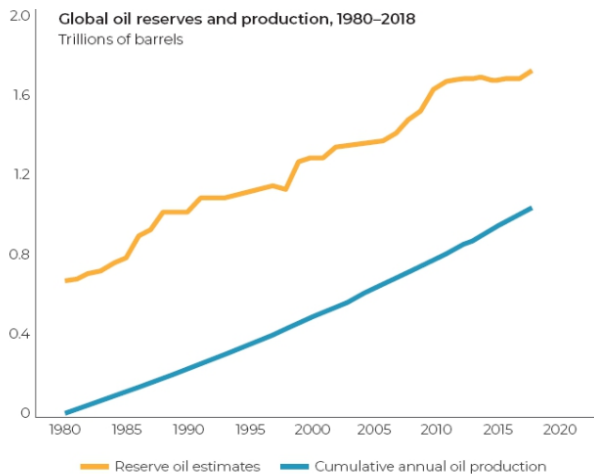


Source: World Bank, "CO<sub>2</sub> Emissions" chart.

And finally, David White of the US Geological Survey warned in 1919 that world oil production would peak in just 9 years. And despite this warning, a century later

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Princeton geologist Ken Deffeyes, predicted that the peak would occur in 2005. Many others have made other such scientific modeling predictions, yet innovation continues to embarrass.



Sources: BP plc, "Statistical Review of World Energy 2019," June 2019; U.S. Energy Information Administration, International data, "Petroleum and Other Liquids."

Not only have these predictions gone wrong (perhaps really due to political or social biases) oil is being discovered as fast as increases in oil production. We have already reviewed the history of light, where electricity replaced natural gas, which replaced kerosene, which replaced tallow, which replaced sesame oil. This happened because the utility of each method was preempted by the utility of a new method. It can happen with oil too. In fact clean burning natural gas is replacing coal reducing pollution in electric power plants. Strong economies fund research that continues to find solutions. If the economic growth is interrupted we have less investment available for new clean renewable energies.

## Summary

Contrary to our news reporting community, for whatever reasons, civilization is much better off that they would like us to believe. Man's march toward basic living materials, food and shelter has never been better, and will continue to do so without a cataclysmic event or government tinkering.

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I think these charts clearly show man's improvements over the centuries. The low cost of light and power was a major driver in this regard. Imagine when kerosene allowed an average person to read at night. The learning and enjoyment increased exponentially. Could we have elevated the human population without the power gasoline provides to allow just 2% of us to provide food for the rest? Would we be better off if we were all on the land plowing with oxen? That is a clear no. Talk about bovine methane?

We need to remember that with all its problems, cheap hydrocarbons actually created the cheap energy go to educate us all, feed us all, allow our 2600 square foot houses to be built and fuel our cars, whether electric or not. Human ingenuity and the earths resources, created the wealth we have today. Wealth that buys much more innovation.

The overriding take aways I have after this study is that 1. Mans journey on this planet has benefited a huge portion of the population in just a blink of the collective human eye. 2. Our media do us a huge disservice by promoting Chicken Little concepts. 3. We should cheer up a little, celebrate our incredible human progress instead of running it down all the time.

But one may ask? How exactly did this happen? Tune in for part two where we will examine the reasons for this astounding and optimistic human condition.

## Our Failing Future- Are Things Really That Bad?

### End Notes

<sup>i</sup> Gallup Polls, “American’s Trust in Media Dips to Second Lowest on Record, October 7, 2021, <https://news.gallup.com/poll/355526/americans-trust-media-dips-second-lowest-record.aspx>

<sup>ii</sup> Gallup Survey, « American’s Trust in Government Remains Low, September 30, 2021, <https://news.gallup.com/poll/355124/americans-trust-government-remains-low.aspx>

<sup>iii</sup> The Rational Optimist, Harper Collins, by Marr Ridley, p 16.

<sup>iv</sup> Ibid., p 17

<sup>v</sup> <https://mymoneywizard.com/millennials-home-prices-today/>

<sup>vi</sup> US Census Bureau, US Households by Size 1960 to present. <https://www.census.gov/data/tables/time-series/demo/families/households.html>

<sup>vii</sup> Ten Global Trends that Every Smart Person Should Know,” by Ronald Bailey and Marian Tupy, page 33 has the complete explanation of the calculation.

<sup>viii</sup> Ibid., page 35

<sup>ix</sup> Ten Global Trends that Every Smart Person Should Know,” by Ronald Bailey and Marian Tupy,

<sup>x</sup> Ibid

### **xi**

18 spectacularly wrong predictions made around the time of first Earth Day in 1970, expect more this year, by Mark Perry of AEIdeas, <https://www.aei.org/carpe-diem/18-spectacularly-wrong-predictions-made-around-the-time-of-first-earth-day-in-1970-expect-more-this-year-2/>

<sup>xii</sup> Ibid

<sup>xiii</sup> Ibid, World bank. See page 57 Ten Global Trends that Every Smart Person Should Know,” by Ronald Bailey and Marian Tupy,

### Other References

Ten Global Trends that Every Smart Person Should Know,” by Ronald Bailey and Marian Tupy, Religion and the Rise of Capitalism, Benjamin M. Freidman, Alfred A. Knopf, 2021

This Book That Changed Everything Volume I, Vishal Mangalwadi, Sought After Media, 2001

The Rational Optimist, Harper Collins, by Marr Ridley, 2010

The Cash Nexus- Money and Power in the Modern World 1700-2000, Niall Ferguson, Basic Books, 2001

The Assent of Money, A financial History of the World, Niall Ferguson, The Penguin Press, 2008

The Population Bomb, Paul Ehrlich, Freeman and Company, 1968

Population Resources And Environment, Issues in Human Ecology, Paul & Anne Ehrlich, Freeman and Company 1970