Economic Musings on COVID-19

This collection of seventy-plus blog posts starts with mid-March 2020 and goes into January 2021. They represent the thoughts of a neoclassically trained economist with specialties in health and urban economics. Your blogger is a little more skeptical of markets than many, but still looks to standard analyses as providing power in discussing the serious economic problems that have accompanied COVID-19.

For updates, watch my web page at allengoodman.wayne.edu.

As with any collection, there is some repetition, but the posts are self-contained, and short. Please feel free to argue with me (allen.goodman@wayne.edu) about what I’ve said, and also feel free to use these analyses in discussions, and for classes.

Allen C. Goodman
Professor of Economics

January 19, 2021
Covid-19 … Like a Massive Tax

For some years, health economists have argued that diseases and epidemics constitute taxes on those who fall ill, and on the communities in which they live. The Covid-19 virus regrettably fits this model too well. For us, it has features of a sales tax AND an income tax.

Suppose that suddenly a taxing authority levied a tax of 100%, effectively doubling the prices of all goods. People would:

- pay more for what they buy;
- purchase less of what they buy;
- buy goods on the “black market” or engage in other sorts of activities to avoid the tax

Such a tax would severely damage commerce and lead to short-term economic hardship. We have already seen this with the Covid-19 virus.

Covid-19 also acts as an income tax. People’s incomes fall, activities slow, and there is a decrease in demand for goods. Canceled activities, canceled vacations, canceled travel, canceled purchases of both big and small ticket items all have major macroeconomic impacts, and they do not bounce back. China has seen this already, and we will see it soon.

What are the potential policy responses?

- Sales Tax Response – Make commerce easier through drive-through and on-line shopping methods. These will effectively lower the tax, although they almost certainly cannot reduce it to zero.

- Income Tax Response – Restore demand by putting purchasing power in the hands of consumers. My proposal would be for the government to send a $250 check EACH WEEK for three months to each of the approximately 130,000,000 households. My “back of the envelope” cost of this is $422.5 billion. Others may have better solutions, and I would love to see them.

Allen C. Goodman
Professor of Economics
Wayne State University
Public Health, Epidemics, and Economics – 10 out of 10?

Most economic analysis starts with individuals who make decisions usually having to do with buying and selling. Although our decisions involve someone on the other side they don’t usually effect other people directly. There is a class of decisions that refer to so-called externalities. A smoker lighting up a cigar alone in a park would bother no one else; in a crowded room the smoker would become a pariah because of the pollution. Epidemics such as Covid-19 provide just this kind of externality. Although market-based bargaining solutions (many referring to Nobel Laureate Ronald Coase) exist, no one seriously believe that they could work in epidemics of the current scale.

Epidemics represent profound externalities that can only be solved by public health methods. Although a vaccination for Covid-19 is nowhere near, it is useful to look at models that apply vaccinations to influenza. Folland, Goodman, and Stano (2013) present a model by Boulier and colleagues (2007) that examines the vaccination externality in more detail. It starts with the Susceptible-Infective-Removed (SIR) model of epidemiology originally developed by Kermack and McKendrick (1927) and reinterpreted mathematically by Hethcote (2000). This model relates the disease incidence to its infectiousness, the size of the population, and the percentage of the population that is susceptible.

Source: Folland, Goodman, and Stano (2013)
In the accompanying figure, from the first vaccination, the initial marginal private benefit is a little less than 0.6 cases of influenza prevented. The marginal external benefit is a little more than one additional case prevented, giving a marginal social benefit of 1.6 cases prevented. The marginal external benefit curve “balloons out” to be as high as 1.58, equaling (1.77 - 0.19) additional cases prevented, before falling toward zero, as the number vaccinated increases, and the number who could catch the disease correspondingly falls. Interestingly, the first person vaccinated does not generate much external benefit because that first vaccination has small preventative impact. The last person “doesn’t need” to be vaccinated because there is no one to infect him or her.

One does not have to be a Marxist or Socialist to argue that epidemic-related public health (i.e. government) interventions such as information, quarantine policies, or vaccines produce profound economic good. On March 16, President Trump rated his administration’s performance thus far as 10 out of 10. Based on the information given, readers may wish to give their own ratings.

Allen C. Goodman
Professor of Economics
Wayne State University

References


Economic Models of COVID-19: Taxes and Cigars

Janet R. Hankin¹
Allen C. Goodman²
Sara H. Goodman³

1. Professor of Sociology, Wayne State University, Corresponding Author, janet.hankin@wayne.edu
2. Professor of Economics, Wayne State University
3. PhD Student in the Program in Public Health, University of California – Irvine


Economic Models of COVID-19: Taxes and Cigars

Health economists have worked for many years in interdisciplinary teams with epidemiologists and sociologists to look at the implications of epidemics and pandemics. Working together we have constructed simple, yet powerful, analytic models that can provide insights into the transmission, immediate impact, and long-term consequences of epidemics. This essay provides such models to look at the economic impacts of COVID-19, as well as some policy prescriptions that follow directly. We present two models that refer to:

- Epidemics as “taxes”
- External transmission of epidemics

Taxes

Economists have argued that epidemics constitute taxes on communities. The COVID-19 virus regretfully fits this model too well. For us, it has features of a sales tax AND an income tax.

Suppose that a taxing authority suddenly levied a sales tax of 100%, effectively doubling the prices of all goods and services. People would:

- pay more for what they buy;
- purchase less of what they buy, and switch to substitutes (which would also be taxed);
- “do without” entirely;
- buy goods or services on the “black market” or engage in other sorts of activities to avoid the tax.

Such a tax would severely damage commerce and lead to short-term economic hardship. We have already seen this type of impact with the COVID-19 virus. Consumers have stopped traveling, going out for dinner, buying large-ticket items, and going to sporting events. Consumers have changed food-shopping habits. More affluent people can dip into savings and “ride out the storm”, at least in the short term. The poor have few such options.

COVID-19 also acts as an income tax. People’s incomes and wealth fall, activities slow, and there is decreased demand for goods and services. We have already seen this as well. Canceled activities and canceled purchases of both big and small ticket items all have major macroeconomic impacts. In the short term this may mean pay cuts, and lay-offs, further reducing incomes. Some, especially women, must stop working in order to take care of children and other family members. Many workers currently earn below the minimum wage and do not have paid sick leave, vacation benefits, adequate health insurance, or the option to work from home. The reduction in income for minority group members and poor people is exacerbated by the recent rules to “shelter in place”, which
make it difficult for them to meet their basic needs. The reduced expenditures are not always offset by increased subsequent expenditures. China has seen this already, and we will see it soon.

Transmission

Transmission of COVID-19 introduces the concept of economic externalities. Most economic analysis starts with individuals who make decisions on buying and selling. People’s market decisions involve someone on the other side, but they don’t usually affect parties other than those doing the transacting. In contrast, a smoker lighting up a cigar alone in a desert bothers no one else; in a crowded room the smoker becomes a pariah because of the pollution. The pollution is an economic externality, impacting others who are not involved in the transaction. Epidemics such as COVID-19 provide just this kind of externality.

Epidemics can be addressed only by public health methods. Although a vaccination for COVID-19 is nowhere near, it is useful to look at models that apply vaccinations to influenza. Epidemiologists start with the Susceptible-Infected-Removed (SIR) model originally developed by Kermack and McKendrick and reinterpreted mathematically by Hethcote. (Hethcote 2000, Kermack and McKendrick 1927) This model relates the disease incidence to its (1) infectiousness, (2) the size of the population, and (3) the percentage of the population that is susceptible. \( R_0 \), or reproductive rate is the number of susceptible people that one infected person can infect. The higher the reproductive rate, the more quickly an infection can spread. (Van den Driessche and Watmough 2002)

Public health alleviation activities must target the three incidence factors above. Epidemic-related public health (i.e. government) interventions such as information, quarantine policies, or vaccines produce profound economic good. Sufficient vaccine coverage is needed to protect the population to attain “herd immunity”, which once achieved, will cause the rate of new cases to fall. The equation for vaccine coverage indicated by reproductive rate is \( 1 - 1/R_0 \). (Scherer and McLean 2002) The 1918 influenza had an \( R_0 \) value of about 2, implying that about 50 percent of the population would have required inoculation. Interestingly, the last group "doesn't need" to be vaccinated because there is no one to infect them. (Coburn, Wagner and Blower 2009)
Policy

Given what we know about the “tax” and the “transmission” issues, what short-term policy implications follow?

Tax

- Sales Tax Response – Reduce state sales taxes to 0. Make commerce easier with drive-through and on-line shopping methods. All of these will effectively lower the COVID-19 tax, although they will not reduce it to zero.

- Income Tax Response – Restore demand by putting purchasing power in the hands of consumers. Our proposal would be for the government to send a $1,000 check EACH MONTH for six months to each of the approximately 130,000,000 households in the United States. One check will not do it! The “back of the envelope” cost of this is $780 billion.

Transmission

Institute broad public health measures to reduce the infectiousness, the size of the at-risk population, and the percentage of the population that is susceptible. Such measures include:

- Testing extensively for COVID-19 and isolating the affected population.

- Implementing broad public health measures to reduce the infectiousness.

- Assume responsibility at the federal level. Only the federal government has the financial resources to shoulder the burden of these activities. The federal government can print money, borrow on international markets, and organize resources at the national level – options that are simply not available to even the most capable state and local officials.

We have variously characterized COVID-19 as either a “tax” or a “cigar”. We are circumspect in our claims. Economic models cannot cure COVID-19, nor can they alleviate pain and suffering, but they can provide valuable insights into characterizing diseases, proposing policies, and measuring the accompanying costs of disease-related policies and interventions.
References


Test Everybody?

The COVID-19 virus has prompted the call for testing. On the one hand, people want to know if they’re well … or if they are sick. On the other hand, the logistics of testing 330 million Americans are daunting and almost prohibitively expensive.

Most women are familiar with Pap smear tests for cervical cancers or mammograms for breast cancers. Similarly, men are familiar with tests for prostate cancer. In both cases, asymptomatic people are tested for indications of cancer, leading to relief, if the test is negative, or further tests and treatment if positive. Who could oppose this?

In fact, there are good reasons not to test everyone. If some people are not at risk, then it is a waste of money to test them. In a sense it is like putting a stop sign in the middle of a road, where there is no crossroad. People stop with no discernible benefit. For this reason, the US Preventative Services Taskforce guidelines apply to women at average risk for breast cancer. Among other recommendations, it says all women should make individual decision about having mammograms between ages 40 and 49. Biennial (every two years) screening is recommended between ages 50 and 74. A mammography is an X-ray test with its own set of risks. Why undergo the test if the risk greater than the potential gain?

Moreover, tests are not infallible. Disease screeners fear “false positive” tests which say that people may be ill when they are not. A false positive leads to further tests, including biopsies and treatment (including chemotherapy, radiation, or surgery) that are total wastes. Anyone who gets tested is at risk for a false positive. We do not know what the false positive rate for a COVID-19 test is, but it is almost certainly greater than zero. Testing large numbers of people leads to the risk of wasted resources, due to false positive tests, on quarantine and treatment for those who are not sick.

The politics of testing have also been apparent. With increased testing comes more positive results. The more people tested, the more positive cases, simply because we are testing more people. Some observers believe that the Trump administration did not want to see more positives, so they restricted testing.

The public has been infuriated by the fact that the tests are not available to everyone … we are scared. The reluctance of the Trump Administration to use available WHO tests is inexcusable. However, focusing screening tests on those with some symptoms, or on health care workers potentially exposed to COVID-19, will constitute a far more efficient set of tests, rather than testing everyone.

Allen C. Goodman
Professor of Economics
Martin Arrowsmith in 2020 – Dealing with Plagues

*Arrowsmith* by Sinclair Lewis was published in 1925. It won the 1926 Pulitzer Prize, which Lewis declined, largely because his earlier novel *Main Street* had been denied the 1921 prize for not being sufficiently “wholesome”. Although *Arrowsmith* is ultimately a complex tale of medicine, ethics, and intellectual growth of idealistic young physician Martin Arrowsmith, this posting concentrates on the characterization and treatment of a plague. In the book, Martin believes that he has a treatment for the plague having to do with bacteriophage, or *phage* that destroys the bacteria. While his wife Leora pleads for him to give it to everyone, Martin argues that he needs a “control group” (who do not get the treatment), so that he can determine whether the treatment is effective. Shortly thereafter Leora falls fatally ill when infected by the *Bacillus Pestis* and dies.

Among our frustrations in these difficult days are the lack of a vaccine, and a cure for the COVID-19 virus. Our science seems slow, our testing seems slow, and our production seems slow. The standard for testing is the “double blind” test where neither the subject nor the tester knows who is getting the test substance or the (inactive) placebo. All of these take time, and we cannot administer vaccines or cures without knowing whether they work. We don’t currently have the *phage*, and if we did, we don’t know whether it would work.

It is tempting to look for villains in the provision of efficacious vaccines and treatments. Has the pharmaceutical industry been hamstrung by federal regulations that may have slowed the production of potentially helpful treatments? There is some evidence that this occurred in the past, although regulations have been eased in the recent decades. Americans should be reminded that the Thalidomide tragedy of the early 1960s, in which many pregnant women were given a medication to address morning sickness, led to the births of babies with malformed limbs. US drug regulators refused to approve Thalidomide for distribution, thereby preventing thousands of potential casualties. As an aside, Thalidomide is approved today to treat Hansen’s disease, once known as leprosy, and some multiple myeloma. In most places women who use it must also use birth control.

Has the structure of the US pharmaceutical industry, including high reported profits, led to underinvestment in timely responses in the forms of vaccines and cures? Possibly, although there have been no vaccines or cures forthcoming from pharmaceutical industries in other countries which regulate corporate profits more strictly than do we.
March 20, 2020

What happens to Martin Arrowsmith? At the book’s end, he and friend Terry Wickett plan to build a laboratory to do medical research without commercial pressure. *Arrowsmith* is still considered the 1926 Pulitzer Prize Novel winner, and Sinclair Lewis won the 1930 Nobel Prize for Literature "for his vigorous and graphic art of description and his ability to create, with wit and humour, new types of characters."

About the processes of creating vaccines and treatment – like making wine, or growing trees, they take time. We are impatient.

Allen C. Goodman
Professor of Economics
Forget the Great Recession - Think the Great Depression.

In late 2017 the Trump Administration proposed and passed a massive tax cut into an already humming economy. The results were more redistributive than expansionary, because the economy was already close to full employment. Because interest rates were so low, large amounts of the funds freed up by the tax cut went into the stock market and real estate. Wages rose only slowly.

There have been proposals in the past week to send checks to millions of American households. These checks should be large ($1,000 per month) and continuing (at least 6 months). Without them, aggregate demand will collapse. Forget the Great Recession … think the Great Depression.

Younger Americans may not be aware that throughout the Great Depression, the unemployment rate was in the high teens compared to the 3.5 to 4 percent that we have seen in the past couple of years. In December 1939, the unemployment rate was 17.2 percent; in December 1940 it was 14.6 percent; on the eve of Pearl Harbor in 1941, it was 9.9% (source: https://www.thebalance.com/unemployment-rate-by-year-3305506). The New Deal did not make the Great Depression go away. World War II did. Aggregate demand skyrocketed because families and households now had jobs, after a decade or more of unemployment and poverty. The unemployment rate fell close to zero.

Is it possible that some checks will go to those who don’t need them? Absolutely! Is it possible that there will be fraud? Again, absolutely! Might people spend them on cigarettes or alcohol, rather than on healthy food or rent? Again, absolutely, although one can point to corporate activities subsequent to the 2017 tax cut, in which corporate executives enriched themselves and stockholders by raising their salaries, and buying back stock shares, rather than paying their workers more, raising productivity, or raising production.

As of 2019, personal consumption expenditures constituted 70 percent of the economy. Even a 10 percent decrease in consumer spending will drastically affect the economy. Incomes and levels of wealth will fall. Many health professionals believe that there will also be substantial increases in self-medication (think substance abuse) to mitigate the pain. Forget the Great Recession … think the Great Depression.

Allen C. Goodman
Professor of Economics
Back by Easter? Marginal Benefits and Marginal Costs

Yesterday (March 23), President Trump announced that we shouldn’t seek a cure for the COVID-19 virus that is worse than the disease. Today, he hoped that we could lift major “in place” regulations by Easter Sunday, April 12, less than three weeks from today. What can economic analyses offer?

A set of safety analogies will help. Everyone agrees that driving too fast on city streets can be dangerous, leading to loss of life and loss of property. Yet no one seriously argues that we should have speed bumps every hundred yards on busy thoroughfares. No one seriously argues that we should have a stop sign at every intersection. No one seriously argues that we should have a national 15 MPH speed limit, even though it could save 30,000+ lives per year.

Why? Because the incremental (or marginal) benefit of safety is swamped by the much higher incremental (or marginal) cost of lost time, and ruined shock absorbers. Individuals monitor marginal benefits and marginal costs for a host of decisions, and public officials pass laws and implement policies based on marginal benefits and marginal costs.

What are the benefits of “in place” COVID-19 regulations?

- Reduced numbers of COVID-19 illnesses, with their attendant costs in terms of illness, absenteeism, and lost productivity, in the trillions of dollars
- Reduced numbers of COVID-19 deaths, again with costs in the trillions. Economists currently put the “value of a statistical life” at about $10 million (Kniesner and Viscusi, 2019) dollars, so saving 100 thousand lives would save one trillion dollars in “lost people”. This number can be scaled up for larger numbers of saved lives.

What are the costs of “in place” regulations?

- Lost output from shuttered factories, offices, governmental agencies, and amusement facilities, valued in the trillions.
- Lost interactions with business partners, customers, families, and loved ones, again valued in the trillions.

Both benefits and costs must be evaluated over time. If we act swiftly, will we prevent the spread? If we send people back early, will the virus flare up again? There are sophisticated models available to guess these impacts. Yes, guess!

The devil, so to speak, is in the details. Which trillions are greater than other trillions? No serious public servant advocates putting in zero restrictions. Both Republican and Democratic governors have imposed “in place” regulations.
March 24, 2020

No serious public servant in the US has (yet) advocated a total 3-week lock down as is currently being implemented in India, a country of 1.3 billion people.

    Policy-makers often conduct sensitivity analyses based on plausible parameter estimates of disease spread, and disease impact. Decisions must be made on the basis of careful analysis … not a hunch that “it’s going to get better soon.” COVID-19 doesn’t care that “America is a great country” any more than it has cared about China, Italy, Iran, or Spain being great countries. Sober analyses of good conceptual models must guide our policies in these difficult times.

Allen C. Goodman
Professor of Economics

Reference
March 26, 2020

Testing 2 - Finding the Denominator, Finding the Location

Like many who have looked at US maps over the past several weeks, your blogger found that West Virginia reported no cases of COVID-19. Impermeable wall, no infection? Well, no. In an interview Senator Joe Manchin (D-West Virginia) explained to the reporter that there had been no cases, because they hadn’t tested anyone. Once they started testing .... they found it.

Why, why, why is testing so important? There are two basic reasons. First, we must know the disease incidence, the percentage of the population that might be expected to get the disease, and the positivity rate Some will not get the disease. Neither your blogger nor his mother could ever remember his getting measles. Yet he never got when classmates or friends did. Most likely, he had a very mild case as a very young boy, which gave immunity. Maybe he was naturally immune (his two brothers both got measles, but he was away at college at the time). That said, he is not going into a room with someone infected with measles.

This means that we need a numerator (the number of people with the disease) and denominator (either the number of people exposed OR the total population). The two different denominators obviously would yield different, but very useful, information. We must know the case fatality rate and the attack rate (the number of ill divided by the number exposed) in order to protect people. We do not always know the number of negative results, because many testing facilities do not log or release them. We cannot wait to vaccinate 330 million Americans (older Americans may remember Sabin Oral Sundays of the 1960s where we were given polio vaccines on sugar cubes at the local public schools - recipients were asked to donate 50 cents or a dollar to defray expenses).

Second, we must know where it is. Without upsetting the squeamish, we do contact tracing for persons with syphilis and HIV/AIDS. Once infected, a person is asked the names of all of his/her sex partners. If these partners can be contacted, treated, and warned of safe conduct, an epidemic can be avoided. The same goes with COVID-19. The Chinese, South Korean, and Singapore governments engaged in information-gathering processes whose intrusiveness would probably appall most Americans. To the extent that they were able to track the disease and its carriers, they appear to have limited the spread. Although some contact tracing has occurred in the US for COVID-19, it has been woefully limited.
March 26, 2020

It is necessary to limit the testing to those who are at risk. As much as the “worried well” may get reassurance by testing negative on a COVID-19 test, the testing is a (very) scarce resource and it must be deployed to discover the numerator, denominator, and location. This is the science, and it is important.

Allen C. Goodman
Professor of Economics
Manufacturing Through COVID-19 – Serious Problems

In Summer 1967, as a 19-year old college student, your blogger worked on the piston pin line at Ford’s Brook Park Cleveland Engine Plant #2. He earned $3.40 per hour (well over $25 today, adjusted for inflation – they don’t have those jobs for college students anymore). He worked from 3:30 pm to midnight, so he couldn’t spend the money partying after work. He was able to pay for his next year of college as an out-of-state student at The University of Michigan.

Economist Paul Romer was on NPR today talking about the possibility of people going back to work if they were healthy, and if they were tested, possibly every two weeks. In principle, if workable, this is a net positive since the apparent marginal benefits exceed the marginal costs. More production is better than zero production; positive wages are better than zero wages. Paul Romer is an outstanding Nobel Laureate economist. Your blogger doesn’t know him personally, but he would be proud to consider him a friend. That said, he believes that this advice is misguided.

The logistics are daunting. In a factory, there are surfaces everywhere. There is air and sweat everywhere. Although things almost certainly have changed, at the Cleveland Engine Plant #2 they had dropped a wall to 7 feet above the floor, to keep the heat and fumes from dissipating to the rest of the plant. Think of the impact of one sneezing worker on an assembly line.

At the end of the shift, workers go home, possibly to pick up more infection and bring it back. Testing every two weeks will not catch the person whose spouse or child, or neighborhood grocer, was exposed last night. The only way to avoid this is to put the workers in dormitories, closing the system, and limiting the infection. It is feasible, but it is expensive, and it is unlikely that American workers would accept it … for very long.

University professors live good lives. Our work is not physically strenuous, and not done in strenuous conditions, and we work with exciting peers and students. We have moved our current courses online and we can do it from home. It is a mistake to believe that large parts of the manufacturing economy can do the same.

Allen C. Goodman
Professor of Economics
The Pharmaceutical Industry – Watch What You Listen For

Your blogger does not customarily spend much time watching Financial TV. He (and his wife) have a diversified portfolio, and they are in the market for the longer term. No “market timing” for them. In the last month or so, however, in part due to increased home time, and in part due to extraordinary changes in asset valuation, he has watched more, and paid more attention.

This morning (March 30) he was watching CNBC personality Jim Cramer talking about several pharmaceutical companies announcing that they are testing possible vaccines/treatments/cures related to the COVID-19 virus. Paraphrasing Cramer, “This must be the case” because “they are strong companies and they don’t have to say anything.” Really?

Although the pharmaceutical industry seeks and receives considerable patent protection for specific drugs, the companies are still competing for consumer, insurer, and investment dollars. There are always various drugs in various stages of development. If Company A announces that it is testing a COVID-19-related drug, then it is certainly in Company B’s interest to announce that it has something. While it would be foolish to announce development is NONE is going on, it is hard to believe that the big players have no drugs in their portfolio that could address COVID-19. Whether those drugs are at all efficacious is another story entirely … but it doesn’t hurt to announce … at least now.

Secondly, the pharmaceutical industry, and its analysts have argued that the costs of developing a drug are enormous, in part (to mix metaphors with the oil industry) because they must drill so many dry holes before hitting a “gusher”. Joseph A. DiMasi, director of economic analysis at Tufts Center for the Study of Drug Development has made a cottage industry over the years of estimating drug development costs. In a 2016 Journal of Health Economics study, DeMasi and colleagues argue that it cost $2.6 billion per approved compound. The component parts are average out-of-pocket cost of $1.4 billion and time costs (the expected returns that investors forego while a drug is in development) of $1.2 billion. Your blogger and many health economist colleagues have raised eyebrows at these orders of magnitude, in part because the authors are beholden to the industry for the proprietary data that they use, and the results are almost impossible to replicate. However, whether the cost is $2.6 billion or even one-quarter of that, they reflect the reality that it takes lots of time and considerable resources to develop new drugs.
March 30, 2020

What are the takeaways? First, it is not surprising to see a lot of announcements – talk is cheap. Second, believe the experts who tell you that COVID-19 vaccines/treatments/cures are not months but years away, and believe it that they will be expensive.

Allen C. Goodman
Professor of Economics

Reference

Numbers Matter – Death Estimates and False Negatives

We have been inundated recently by numbers. Your blogger would like to focus on two of them today.

- 100 – 200 thousand COVID-19 related deaths
- Potential 30% false negative rate for screening test

In the past couple of days, the Trump Administration has released potential COVID-19 predictions of between 100 and 200 thousand deaths, if, as according to Deborah Birx, “if we do things almost perfectly.” At a news conference on Tuesday, the President noted that if we “did nothing” the number of deaths would be close to 2 million.

While it is hard to imagine any US policy-maker “doing nothing”, 150,000 deaths would come with horrendous dollar costs. Valuing each life at $5,000,000 leads to a permanent loss of $750 billion dollars. Unlike stock values, these won’t bounce back. To put this into perspective, it costs close to a billion dollars (in normal times) to build a hospital. Imagine a circumstance where 750 US hospitals vanished into thin air – not shuttered (like auto plants) but obliterated. While a more sophisticated analysis would net out the probabilities that some of the people would have died anyway, hence lowering the loss estimate, the economic loss is staggering and permanent.

The 30% false negative rate, reported in the April 1 New York Times (https://www.nytimes.com/2020/04/01/well/live/coronavirus-symptoms-tests-false-negative.html) while less jarring, is still troublesome. On March 18 your blogger talked about the problems of “false positive” tests, which lead to unnecessary treatment. The “perfect screen” gives positive results for those who are ill, and negative results for those who are not. Unlike false positives, false negatives do not lead to unnecessary treatment. A subject who tests negative for prostate cancer may have the false security of not realizing he has cancer, but his going out into society does not lead to contagious spread of cancer. The contrast with COVID-19 is obvious.

Does this mean that symptomatic people should not get tested because the test may be wrong? Obviously not. We need the tests and we need their results. We need to get baseline numbers and calculate the disease incidence. We obviously need better tests and faster tests. Still a 30% false negative rate should give pause, especially to those who are at high risk of becoming ill and/or
April 1, 2020

dying. They were tested because they were symptomatic. Even if told they don’t have COVID-19, they must be aware (in the back of their minds) that they might.

Numbers matter.

Allen C. Goodman
Professor of Economics
How Many Ventilators is Enough?

As a graduate student at Yale in the early 1970s, your blogger took an urban economics course from John Meyer and John Quigley. When discussing urban transportation in New York City, Dr. Meyer remarked that you couldn't solve their peak load traffic congestion problem if you paved over every inch of Manhattan. As a result, you had crowding, pollution, slow traffic, and commuters spending three or more hours per day on crowded trains. This peak load problem is now painfully evident in the midst of the COVID-19 pandemic.

There is considerable hand-wringing these terrible days about how we do not have enough ventilators to serve everyone who needs them – and we do not. Critics argue that this shows the terrible flaws in the US health care system (and in the Chinese, Italian, and Spanish healthcare systems). This is a profound peak load problem. Should there have been a “ventilator reserve”, enough to last out the COVID-19 pandemic? How about the appropriate numbers of masks, as well as hospital beds? Where is the reserve? Why did they not pave over all of Manhattan? They saw fit instead to fund subways, buses, and other forms of transportation in its place. In 2020, New York City is a vibrant city, and it still has massive traffic congestion.

The economic analyses argue against such massive reserves. How do you procure them, where do you put them, and how do you maintain them? How do you know whether they will work once you need them? Will they be in the right place? How would you justify the costs of maintaining empty wings of hospitals, waiting (possibly for years) for someone to use them? Should you be spending all of this money on the reserve, when there are roads to be maintained, diseases to cure, poor people to feed, children to be educated? Some argue that this is a problem for the states to solve, rather than the federal government?

Scholars of World War II agree that the United States was woefully under-prepared for its start on December 7, 1941. We had only recently instituted a draft, and we did not have the war-time materiel ready. The war was a national war; President Roosevelt didn’t tell the authorities in Hawaii, California, Oregon, and Washington (who feared of being bombed) to “figure out a way” to fight the Japanese. There was a full federal mobilization, that took time – thousands of American servicemen died in battles in 1942, as the Japanese conquered large parts of the Far East and contemplated invading India and Australia. We know the end result – and we know the horrible carnage.
We almost certainly should have had more advance planning for a possible pandemic, although no one could have foreseen the location and the magnitude of the impact of COVID-19 and the consequent financial dislocation. It is almost inconceivable that we would have enough ventilators and masks, even if the Trump Administration had not in 2018 dismantled a National Security Council directorate at the White House charged with preparing for another pandemic. The shortages are real and understandable. The refusal of the federal government to do what only federal governments can do – organizing a war-time mobilization against COVID-19 – is not.

Allen C. Goodman
Professor of Economics
Together and Apart – Economies and Diseconomies of Scale and COVID-19

Simply defined, economies of scale mean that if we double the inputs in a process, we more than double the output. Economies of scale are important to modern society. Cities exhibit economies of scale, which is why people move to them, for higher wages, partially offset by higher land (and housing) rents. Hospitals exhibit economies of scale; one sees very few 10-bed hospitals, because common resources such as operating rooms, intensive care units, or testing facilities, require large volume to cover costs. Large corporations exhibit economies of scale in research and development, and in marketing; making 10,000 cars per day does not cost 10 times as much as making 1,000 cars per day.

Are scale economies boundless? Emphatically not. Mumbai or Kolkata have massive populations, and severe urban problems, but then so have New York and Detroit. At what point, analysts must ask, do the economies of scale give way to too much crowding, leading to pollution, congestion, breakdown of public service, or of social order. Metropolitan New York City is the most densely populated area in the United States, but Metropolitan Detroit is not. The crowded streets, buildings, and elevators in New York City signify the vitality of commerce, business, and entertainment, but they also put people very close to each other, and potentially in harm’s way for contagious diseases. Certainly factors other than density, such as poverty (making people more susceptible to disease), and availability of health care resources (helping to prevent or cure disease), must be addressed to provide full explanations of the COVID-19 pandemic in local US metropolitan areas.

Economies of scale also work at the micro level. A couple living together does not need two kitchens, two water meters, or two furnaces (although they may require two bathrooms!). Living together saves money. Staying at home, and working apart from colleagues, can be less productive. Tech wizards, University professors, or office workers are now finding that they can work from home, although many are finding the results to be less satisfactory than working together in the same place. Economies of scale matter.

There are rare silver linings. A friend’s son has been commuting several hundred miles every week and keeping a separate apartment, in order to do his graduate studies in a different city. Staying in place, and social distancing means that he can do his teaching and research from “home”, and be together all the time with his partner … and saving several thousand dollars. This, too, exemplifies economies of scale.

Allen C. Goodman
Professor of Economics
The Wisconsin Poll Tax

The 24th Amendment to the U.S. Constitution (1964)

Section 1. The right of citizens of the United States to vote in any primary or other election for President or Vice President, for electors for President or Vice President, or for Senator or Representative in Congress, shall not be denied or abridged by the United States or any State by reason of failure to pay any poll tax or other tax.

Section 2. The Congress shall have power to enforce this article by appropriate legislation.

In his March 16 posting, your blogger referred to the economic analysis of an epidemic, as having features of an excise tax on desired purchases. Raising the price makes it more expensive to purchase goods, leading to reduced purchases, and loss of consumer well-being.

As recently as the 1960s, Texas, Arkansas, Alabama, Mississippi, and Virginia required that voters pay poll taxes to vote, and the latter three required payment of all missed poll taxes from prior years. These states argued that any reasonable citizen should be willing to pay a small tax in order to vote. The taxes were designed to disenfranchise poor and minority voters. They were successful.

In January 1964, the 24th Amendment, stated above was ratified. After some further court cases, the U.S. Supreme Court in the case Harper v. Virginia Board of Elections (1966) ruled that the poll tax was unconstitutional at every level, not just for federal elections.

Your blogger is not a Constitutional scholar, but as we watch the Wisconsin election charade, the COVID-19 virus has levied an enormous poll tax on the Wisconsin voters. Without indulging in hyperbole, exactly how large a tax was the Wisconsin Republican Party, and its captive Supreme Court prepared to levy on Wisconsin voters? Those who went to vote put themselves and their fellow voters at risk for COVID-19 illness, and perhaps death. Those who stayed home, like those who could not afford the poll taxes the past century, lost their right to vote.

Wisconsin never had a poll tax until now. Shame on Wisconsin.

Allen C. Goodman
Professor of Economics
Who Can Re-Open – COVID-19 Cap and Trade

We have been reading this past week about the full court press (remember basketball?) by the business community to President Trump and his business-friendly advisers to reopen at least parts of the economy. On the one hand, the incremental cost of the shut down, along with the social distancing, has been staggering (in the billions of dollars). On the other hand, the incremental benefits have also been staggering (less COVID-19 disease and death than otherwise). Disease prevented is more difficult to see than unemployed workers and shuttered factories, but it is real and substantial, and also denominated in the billions of dollars.

The problem of opening things up takes us back to a debate about economic pollution. If one manufacturer has a smokestack (to remove pollution from the building) the effect on the local air is probably small – the atmosphere is able to assimilate small amounts of pollution. If multiple manufacturers have smokestacks, it leads to serious air pollution, respiratory problems, and potential illness and death. One solution is “cap and trade.”

“Cap and trade” was developed as a system to reduce pollution in the atmosphere. Paraphrasing from the Environmental Defense Fund web site (https://www.edf.org/climate/how-cap-and-trade-works) the “cap” is a firm limit on pollution, and it can get stricter over time. The “trade” is a market for companies to buy and sell allowances for them to emit only a certain amount of pollution, with the allowances being set by supply and demand. Trading offers companies strong incentives to save money by cutting emissions. Rather than paying $1,000 per ton to pollute, the XYZ company spends $800 per ton to reduce pollution. Nearly every serious economist supports this kind of policy. Until the Republican party decided to oppose all taxes (even sensible ones), most Republicans did as well.

No one wants to impose new taxes on business, especially now, but the business interests will not align with society’s interests if they gather workers to produce goods and services, only to send infected workers back out into the economy. A COVID-19 cap and trade policy would provide free permits to allow businesses to hire workers, with stiff fines (announced in advance) for those who send (like smokestacks) infected workers back out into the economy. Those who can produce pollution-free (sending out no infected workers to the community), or with low pollution costs (a small number of infected workers) can re-open. Workers’ health and infection must be monitored (taking temperatures or monitoring coughing), like smoke pollution. The benefits would be manifest, and the costs will be manageable. The permits could be bought and sold. Efficient firms, with respect to infection, could reopen. Inefficient firms would remain closed.
April 11, 2020

This is a daunting task. At the moment we do not have enough tests or laboratories to diagnose asymptomatic people. Bringing people together in a workplace magnifies and multiplies the problem of disease transmissions.

There is an understandable push to return to “business as usual” in these terribly unusual times. We cannot return to business as usual without appropriate price signals to reduce the pollution. A COVID-19 cap and trade policy would provide those signals and start the economy moving again.

Allen C. Goodman
Professor of Economics
What Is It About Epidemics that Business Leaders Don’t Understand?

The picture above shows Pittsburgh in the early 1940s. They had a pollution problem. It wasn’t one company’s doing. Too many companies using too much fossil fuel for the air shed to assimilate. It looks bad now, and it was really bad for health. The site above notes that in 1941, influenced by a similar policy introduced in St. Louis four years earlier, Pittsburgh passed a law designed to reduce coal production in pursuit of cleaner air. The new policy ended up not being fully enacted until after World War II. The air got better and Pittsburgh became a poster child for clean-up. But it took a long time … and it cost a lot of jobs in coal and steel.

Your blogger is a resident of Michigan where Governor Gretchen Whitmer has gotten major pushback from the business community about shut-downs to stem the COVID-19 epidemic. “LOOK AT THE COSTS OF FOREGONE OUTPUT? Why can’t a small manufacturer in the ‘Thumb’ keep working?” Said manufacturer is isolated and will not infect someone else. To borrow from a previous blog, it is like lighting a cigar in the desert – it won’t bother others. And it won’t.

The problem is that the large part of employment in Michigan, and elsewhere in the US is in BIG places, with BIG factories, and lots of workers coming and going. They are with each other, and their families. Until we have safeguards in place, they should not be working because the total cost of the
disease is related to the total amount of infected people and their contacts. In economic terms the foregone costs equal the foregone output MINUS the disease costs prevented by keeping people from infecting each other. Many who are saying that the costs of mitigation and shut-down outweigh the benefits are seriously overestimating the costs.

Your blogger has been following plans from Europe. This morning’s French news feed (https://www.thelocal.fr/20200413/frances-coronavirus-lockdown-what-next) talked about the French need for testing. To paraphrase:

[President] Macron outlined a three-pronged strategy for ending the lockdown – (1) testing, (2) masks and (3) technical tracking solutions. From May 11th, France will begin testing everyone who has coronavirus symptoms.

The country has been massively expanding its testing program from previously testing only healthcare workers and people in high risk groups, and Macron said that from May 11th, there would be sufficient capacity to test everyone who has symptoms, even mild ones.

Anyone who tests positive will be quarantined, but the president did not specify how that would be organized.

This is what testing looks like. This is what will be necessary in Michigan and elsewhere. Anything less is just blowing smoke.

Allen C. Goodman
Professor of Economics
How Should We Re-Open?

How do you feel when the guy who cuts your grass sneezes without covering his mouth while doing his job? How about the person in the next office? How about the person at the next restaurant table? The answers are obvious, yet this simple model (yes, it is a model) can educate us about the problems that we are facing in re-opening the economy.

How fast we re-open is related to the number of interpersonal contacts related to the job. Let’s start with the easy ones. The person who cuts my grass (or fertilizes my lawn and trees) generally wears a mask anyhow. Whether his or her partner or children are sick is of little concern, whether it is a cold or COVID-19. People in these categories can go to work fairly quickly.

Offices and factories are less controlled, but there is still some degree of control. Employers know who should be there, and they can trace their illnesses and the people they have been with. It is more costly, but conceptually it is tractable. In an earlier post, your blogger described the number of surfaces, the amount air and the amount of sweat in a factory. It is daunting, but not insurmountable to do this kind of tracing. These businesses could open up next.

What about classrooms, lecture halls, dormitories, schools, shopping malls, arenas and stadiums? How will we trace 20,000 people at Little Caesar’s Arena, 40,000 at Comerica Park, 60,000 at Ford Field or 100,000+ at the Big House? Casinos are full of smokers and drinkers around a table or in front of a (sanitized?) slot machine. Do you remember your favorite intimate dining spot? How intimate will it be with half the number of tables, and with your servers wearing gloves and masks? How profitable will it be with half the number of customers?

As a younger academic, your blogger studied moving behavior for households, and was advised that the best way to find the movers was to hire a private investigator (PI). While expensive, PIs knew what they were doing. What follows is that tracing diseases will require appropriate tests, appropriate testing facilities, and (probably thousands of) tracers who know what they are doing. Re-opening some parts of the economy will be very expensive … and frighteningly slow.

Allen C. Goodman
Professor of Economics
How Should We Reopen? – Part 2

In a certain segment of the entertainment industry, illness from one performer can have serious and even deadly impacts on others. If one performer has HIV/AIDS he or she can infect another via unsafe sex or sharing dirty needles. While HIV/AIDS is not the death sentence that it once was, it is life-altering and can be life-threatening.

Some members of this industry have registered in a third-party database to protect their privacy. The production company consults the database, finds out if an actor is cleared to work. (https://www.avert.org/news/hiv-prevention-adult-film-industry-testing-alone-not-sufficient). The article cited in the above hot link detailed the case of a 25-year old male performer (patient A). Patient A had an HIV-negative nucleic acid amplification test (NAAT), a highly sensitive test that can detect HIV from 10 to 15 days after infection, but 22 days later he tested positive for HIV, after condomless sex with 12 adult film actors and five non-work-related partners. Two of the man’s partners, one actor, and one non-work partner were later diagnosed as HIV-positive.

The parallels to the COVID-19 “back to work” debate are immediate. How will we know when it is safe? How close should people be to each other? What do we do if someone becomes ill?

Your blogger grew up in the 1950s. Everyone had a scar on his or her arm from the “vaccination” for small pox – we knew we were safe. Polio vaccinations followed in the late 1950s and the early 1960s. Again (at least in most of the world), we became safe from polio. MMR (measles, mumps, rubella) followed, providing safety for at least the largest part of the population that has not fallen prey to the “anti-vaxxers”.

Without a vaccine, how will we reopen facilities where people come and go. For now, this suggests a national health ID card, with a chip, and a card reader that indicates whether the person has tested negative for COVID-19. Readers could be provided to restaurants, libraries, University lecture halls, even arenas and stadiums. Put your card in the slot, test negative, you get in. You don't want to get tested … you don’t get in.

Abridgement of freedom? Some. We require drivers to have drivers licenses which suggests that they know how to drive. We require travelers to have passports, because we need to know who they are. We have given away a lot of our freedom at TSA checkpoints that have thus far prevented another 9/11.

Perfect? Inexpensive? Absolutely not. A person who tests negative on Monday may be infected on Tuesday and may not be symptomatic or test positive until days after that. This kind of program would require some type of simple periodic retests, weekly perhaps.
In addition, antibody tests are important to determine immune response to COVID-19. Jennifer Abbasi in *JAMA* ([https://jamanetwork.com/journals/jama/fullarticle/2764954](https://jamanetwork.com/journals/jama/fullarticle/2764954)) writes that such tests are ramping up quickly.

Scientists said the tests will be critical in the weeks and months ahead, when they may be used for disease surveillance, therapeutics, return-to-work screenings, and more. But the tests must be deployed appropriately, they added, and with an acknowledgment of unanswered questions (Abbasi, April 17, 2020).

Who should run COVID-19 related tests? The federal government! There should be multiple safeguards and serious, very serious, data encryption.


… and we should hope for a vaccine soon.

Allen C. Goodman
Professor of Economics
COVID-19 and the Cities

As a graduate student, your blogger once went to a seminar by George Sternleib. The topic had something to do with urban renewal, but the quote could apply to anything. “If you want a prediction for the future” said Prof. Sternleib, “listen to fortune tellers. They do a better job than we do.” So with that in mind, we talk about COVID-19 and the cities.

Economic analysis has shown that densely packed cities are more productive than suburbs or rural areas. Company profits are higher in cities, and they are willing to pay higher land rents and higher wages. In a “system of many cities”, however, rents and wages reach an equilibrium through the demand for land and the supply of labor. San Francisco is more desirable than Detroit, which leads to much higher land rents. Because people (at least until recently) wanted to work there, they supplied more labor, lowering the general wage level relative to what it might have been. Roughly speaking within a system of cities, the rent:wage ratio in San Francisco adjusts such that workers in similar jobs and similar industries would be indifferent between being there and in Detroit. Ignoring the last several weeks, your blogger had been hearing that some of Detroit’s lost younger generation (young adults in their 20s and 30s who had left the area) were finding it too expensive to live on either the East Coast (New York, Boston, Washington) or the West Coast (Seattle, San Francisco, Silicon Valley), and were moving back. The exact numbers are hard to verify in real time, but they seemed plausible.

What will happen now? The COVID-19 outbreak has had two major impacts in the land and labor markets. First, there has been a massive loss of wealth, the type of wealth that leads people to bid up the price of land and housing. This happened in 2007-2009, and it took housing markets years to recover. Some (Rust Belt cities such as Detroit, Cleveland, and Buffalo) have never really recovered. It is hard to know how the housing impacts will be distributed, but one would also expect for the bubbles in California, Washington, and the East Coast to be deflated. This will lead to lower housing market density and lower rents.

In terms of the labor market, it is clear that the gains to density in productivity will be offset by the disease impact over overly dense contact, in offices, places of entertainment, or sporting events. We have learned to live and be productive at lower densities in the past month. Until we have a vaccine, lower density will be the way to go. Even then, the work-arounds (working from home, getting delivery from restaurants) may turn out to be more permanent.
So, the future. It looks like lower densities in the places that have been enjoying the fruits of high density. Somewhat lower rents for housing and land everywhere. Wages could go either way, because there will be a decrease in labor demand, but also a decrease in labor supply. Places with lower density will become more attractive to live in and work.

The long term? Many scholars of the 1918-1919 Spanish Flu epidemic feel that the impacts lasted for several years. Looking at their own country, and its serious bout with COVID-19 Italian social scientist Arnstein Aassve and colleagues write:

analyses suggest that experiencing the Spanish flu and the associated condition of social disruption and generalised mistrust had permanent consequences [emphasis added] on individual behaviour in terms of lower social trust. This loss in social trust constrained economic growth for many decades to follow. These findings have important implications for our understanding of the economic consequences of different approaches to managing the COVID-19 crisis. https://voxeu.org/article/pandemics-and-social-capital

Careful researchers, they warn that it is difficult to make predictions in the midst of an epidemic, but it is wise for social scientists and policy-makers to heed their findings.

Allen C. Goodman
Professor of Economics
Distributing Vaccines – The Economics Are Simple

Listening to public radio this morning, your blogger heard a discussion about the plans for distributing a COVID-19 vaccine. While making it seem difficult, the economics and the distribution would seem to be simple. Look at what worked for the polio vaccine sixty-plus years ago … and do it again.

In the March 17 entry (http://allengoodman.wayne.edu/Blog/Epidemics-Economics.pdf), your blogger discussed the external benefits that accrue to vaccination. Infected people infect others, sometimes a lot of others. So, any vaccine that can reduce infection, will help others. The problem (in economic terms) is that individuals may not recognize the benefits they are bringing to others. This would lead to inadequate levels of vaccination among the population.

The economic answer is a simple one – subsidize the distribution. By lowering the cost (possibly to zero), people who would otherwise not find it worth their while to vaccinate will do so. We will get to (or at least close to) the right amount of vaccination. This is textbook Economics 101 (or at the blogger’s University, Economics 2010).

Vaccines for polio became available in the 1950s (for a fascinating account of the politics of science and the rivalry between competing investigators see Kevin Loughlin’s 2018 https://hekint.org/2018/01/30/salk-sabin-disease-rivalry-vaccine/). The Salk vaccine (dead virus) was first available in the mid-1950s. The Sabin vaccine became available in the late 1950s.

Your blogger got both of them. In Cleveland they were dispensed in public schools. The Salk vaccine was given by needle, by the school nurse, without cost. The Sabin vaccine (giving rise to Sabin-Oral-Sundays, https://magazine.uc.edu/issues/0408/on_campus.html) was administered by sugar cube. Families stood in line at Fairfax School to get a sugar cube laced with vaccine. Donations were voluntary – the suggested amount was 25 to 50 cents per cube. The take-up percent rates were into the high 90s, and in some places they were higher (with people from neighboring communities coming in).

Is this type of subsidized distribution the right thing for the Federal Government to be doing? The answer seems obvious.

Allen C. Goodman
Professor of Economics
Re-Opening Universities

The United States provides higher education better than any other country in the world. Students both from within and without have treasured a US diploma. A college degree has provided an enormous boost to human capital for US students over the post-World War II era, and international students will tell you that road to success comes with experience in an English language University – most of those Universities are in the United States.

Your blogger has spent his adult life both as a student, and then as a faculty member, at several US universities. The largest value is in being TOGETHER – in classes, in dormitories, in social situations, in networking. All of these have been challenged by the strictures of the COVID-19 lockdown. In a thoughtful piece in the April 26, 2020 issue of the New York Times, Brown University President Christina Paxson states “College Campuses Must Reopen in the Fall: Here’s How We Do It.” President Paxson writes:

The reopening of college and university campuses in the fall should be a national priority. Institutions should develop public health plans now that build on three basic elements of controlling the spread of infection: test, trace and separate [emphasis added].

She speaks to the serious problems in the current setting. She writes “A typical dormitory has shared living and study spaces. A traditional lecture hall is not conducive to social distancing. Neither are college parties, to say the least.” She also speaks to the need for facilities to isolate students for quarantine and treatment.

The logistics are daunting. Consider a lecture hall set up with 20 rows of 10 seats each. How many students can sit in the lecture with social distancing? Consider laboratory sections in the hard sciences, with lab partners. Consider Friday evening “happy hours.”

At many universities, classrooms are cleaned once each day. Comfort facilities, water fountains, and sanitizing stations (if available) were designed for much different times. It is easy to predict the attendant costs of making these areas safe as running into the hundreds of thousands (or more) dollars.

The economics of reopening speaks to (at the very best) a “hybrid reopening.” At your blogger’s own university this would mean that classes of 10 or less might be able to meet in person. Computer and hard science labs would have to be continuously cleansed. Larger classes (until people can be safe sitting next to each other) will almost certainly have to remain online.

It is hard for your blogger to contemplate how the large dormitory settings at many universities will be made to work. Going to single room occupancy will
either unleash large numbers of students into local apartment markets that are not ready for them, or lead them to stay home. Many dormitories have comfort facilities and dining halls that are shared by dozens to hundreds of students. To repeat, the logistics are daunting.

Academics went into their jobs because they love to teach others, and love to learn. The US University model has been sturdy, long-lasting, and productive. For now, it will have to change, and it will be expensive.

Allen C. Goodman
Professor of Economics
The Shape of the Economy

On yesterday evening’s social distancing walk, your blogger’s partner asked what he thought was going to happen with the economy for the rest of the year. While he is basically a micro-economist, he studied macro-economics at Yale (the star student was a woman from Brooklyn named Janet Yellen), and learned a few things. Most of them have to do with aggregate supply and aggregate demand.

Aggregate supply is determined by labor force, capital stock, technology, and know-how. Although we are pushing 60,000 lost lives at this writing due to COVID-19, the labor stock is fundamentally intact. We haven’t lost factories, and the great technology stocks (Alphabet, Apple, Amazon, Microsoft, and Facebook) are leading the stock market recovery. They help people work from home. This is all good.

However, the factories will not be able to operate the way they did before – public health measures will cost billions of dollars and this will ultimately be reflected in lower output, and higher prices for the goods produced. The medical sector has seen a sea change. A sector that had pushed back on tele-medicine is now embracing it. Moreover, we will have to have planning for the next great pandemic. “Reserve” hospital wings, inventoried n95 masks and ventilators will use up productive capacity without providing much in the way of consumer goods. Think of this as we do the stockpiling of missiles, aircraft, and armaments. Important to have, but costly and hardly leading to increased consumption.

Aggregate demand has been decimated and it will not come back quickly. Almost any sector of the economy related to entertainment will look totally different. People will not want to go into crowded restaurants, and those restaurants which were on the financial edge when 100% full will not make it if 25% or 50% full. Forget crowded lecture halls, concerts and sporting events … until people can feel safe going there. Cruises, hotels, conventions, European vacations? There are no easy bounce-backs here.

The result, to your blogger, will be a hockey stick with a very long handle. Your blogger is not a forecaster, but the economy will almost certainly be smaller well into the end of 2020, and probably well into 2021.

Allen C. Goodman
Professor of Economics
Risk and Uncertainty: What We Have is Uncertainty

There is a lot of “unknown stuff” going on in the economy right now with the COVID-19 virus and its impacts. We do not know the probability of falling ill, much less dying if we fall ill. We do not know the probability of getting well, once we are ill. The analysis gets us into the discussion of risk and uncertainty. Economists (and most textbooks) often use them interchangeably. How do they differ, and why do we care?

About 25 years ago, your blogger performed some consulting work for a re-insurance company. What is re-insurance? Suppose Jack is in an auto accident and needs several surgeries to recover, followed by physical rehabilitation. The surgeries could easily cost over a million dollars. Jack’s health insurer may have factored this probability into his insurance rate. More likely, however, the insurer bought “re-insurance” against this catastrophic claim. Both Jack’s insurer and the insurer’s re-insurer looked at the probabilities of these adverse events occurring, and based premiums on these probabilities, and on the expected costs that would occur.

The client (a re-insurer) said something very important. “I’ll write insurance on anything as long as: (1) I know the odds; and (2) they don’t change the rules on what I have to pay.” The odds are the probabilities of events occurring. The “rules” relate to mandated coverages, limits on payments, and other aspects of the insurance contract. If, for example, the re-insurer had written a policy based on a maximum of $2,500,000, and a state changed the mandates to unlimited coverage, then the rules have changed.

All of this is about risk. With risk, gamblers (and insurers are sophisticated gamblers) know the odds, and can calculate the probabilities. All casino games have risk, and rewards, and the participants know the risks and the rewards. The skilled players know them better and apply them better. This is risk. One can know the odds, and act upon them. One can insure oneself against them.

What, then, is uncertainty? The renowned economist Frank Knight, of The University of Chicago, wrote:

Risk [emphasis added] is the possibility of alternative outcomes whose probabilities are capable of measurement; uncertainty [emphasis added] is the possibility of alternative outcomes whose probabilities are not capable of measurement. When probabilities are known, adverse outcomes may be insured against. Uncertainty is handled by judgment, an unequally distributed ability. (Knight, 1921)

COVID-19 has presented uncertainty. There is no experience with the outcomes. There are no good estimates of the odds.
Another way to look at this is the availability to plan, and to insure against unexpected outcomes. Many readers have planned complicated vacations to other locations in the United States or abroad. This often involve long and expensive trips, with multiple hotel stays, tour plans, and restaurant reservations (searching for that Michelin star). Because they are expensive, many travelers buy “trip insurance” against not being able to make the trip, or having to cut it short. The insurers know the risk, and charge accordingly. Some travelers buy the insurance, and others do not, choosing to “self-insure.” This is risk.

On Thursday, April 30, television host Lawrence O’Donnell observed (in paraphrase) that the COVID-19 virus has taken away our ability to plan for the future. Your blogger notes that students cannot plan for college, many workers cannot plan to work (or to pay rent, or buy food), those with family obligations or vacations cannot plan for them. Local courthouses have reported a spike in applications for marriage licenses, for marriages to be done quickly and at a very small scale. Who, now, can plan a large wedding? There is almost no experience rating, and no readily available insurance.

This is uncertainty.

Allen C. Goodman
Professor of Economics

Reference

Knight, Frank H., Risk, Uncertainty and Profit (1921). University of Illinois at Urbana-Champaign's Academy for Entrepreneurial Leadership Historical Research Reference in Entrepreneurship. Available at SSRN: https://ssrn.com/abstract=1496192
The Health Externality

As states begin to re-open, there are major questions about “how soon” and “how fast”. In your blogger’s home state of Michigan, there has been major and sometimes dangerous (armed confrontations at the State Capitol) discord. The simple argument seems to be that the problem is in Southeast Michigan (the Detroit metropolitan area), so why should the rest of the state suffer. Politics is never very far below the surface, and a strong-willed Democratic Governor has been opposed by a Republican-controlled Legislature.

If each of Michigan’s 83 counties were an island, each could pretty much do what it wanted, without repercussions. However, health, measured here through contagion, is an externality. It affects those who have it, but even more so (it seems) those who with whom they come in contact. Michigan’s counties (as are the counties in other states) are connected by commerce.

Michigan is well defined by two major Interstate highways. I-75 (starting in Florida) enters Michigan from Toledo, Ohio and goes north to Sault St. Marie in the Upper Peninsula. Cross-country Highway I-94, starting in Billings, Montana, enters Michigan from Chicago and Indiana, and goes through the state to Port Huron, with Canadian exits at Detroit and Port Huron. Contagion jumps into a car, truck, bus, or train and goes where the conveyance goes, up I-75 and across I-94. Northern Michigan is a beautiful area, with lots of summer traffic from Detroit and Chicago. Interviews with participants in the tourist industry, as well as other participants in the business community reveal a deep division – they want the commerce and they fear the disease.

In 2000, partnering with Miron Stano, your blogger wrote an article about the health externality with regard to managed care organizations (MCOs). We showed that good health was a positive externality, but acting separately, the managed care system was likely to provide “not enough care” to “not enough people”. This would occur because the MCO could not internalize the improved health, and would not be able to take advantage of the reduced costs. Consolidating into larger groups, and possibly global budgets constituted an important health care and policy solution. It would reduce costs, and improve health.

Revisited in this (COVID-19) year 2020 the model implies that “good health” is too important for community and county-level decision making. Places that are connected economically are also connected by contagion. Opening up Traverse City, Petoskey, and Charlevoix (beautiful cities up at the top of “the Mitten”) is only good if it improves commerce without bringing in contagion from elsewhere. No one yet seems to have a good idea of how to do that. There are only limited hospital facilities north of the Saginaw-Bay City-Midland area, and a contagious outbreak would have major consequences.
Goodman and Stano’s model speaks to the internalization of the health externality through "large area" regulation. Michigan, Ohio, Indiana, Kentucky, Illinois, Wisconsin, and Minnesota have sought to work together to coordinate policies and re-opening plans. That scale seems about right. With what we know now, counties, and even larger districts within states, and possibly even the state boundaries themselves, are too small.

Allen C. Goodman
Professor of Economics

Reference

May 9, 2020

Aggregate Demand Again

On March 23, your blogger wrote an entry “Forget the Great Recession - Think the Great Depression.” Regrettably it was prescient. Neil Irwin of the New York Times wrote (yesterday):

April 2020 — more technically, the period between the second week of March and the second week of April — was the worst month for American workers at least since the Great Depression and possibly in the history of the nation. (https://www.nytimes.com/2020/05/08/upshot/virus-jobless-rate-demand-collapse.html)

A recovery will depend on the revival of aggregate demand for goods and services in the economy. Millions of people have lost their jobs and their incomes. They are not paying rent, and they are buying less of everything. Almost no one is traveling, and just about all purchases of anything discretionary have dried up.

The “bounce back” in industries that serve large numbers of consumers will be slow. Looking in a mirror, your blogger traveled in Europe last year, went to symphony orchestra concerts, dined out occasionally (but well). Four years ago, he had his kitchen renovated. Opening up restaurants, permitting concerts, or lifting travel restrictions does NOT mean that people will start demanding them. Availability of “aggregate supply” does not mean that the “aggregate demand” will absorb it. Many (your blogger included) do not plan to go to group gatherings until the group is safe. Only a vaccine will provide this safety.

There is no good fix for the aggregate demand at the higher end of the wealth distribution, who for now may have endured only minor pay interruptions, and who may have seen retirement account values bounce back … at least some. Even so these people must be convinced that they are safe. For those tens of millions at the lower end, it is essential to provide them with the purchasing power for what they need. The “one shot” stimulus payment of $1,200 was inadequate and grudgingly distributed. At least one more, and probably two or three more are not only necessary, but essential.

Otherwise, forget the Great Recession …

Allen C. Goodman
Professor of Economics
We Need a Cost-Effective Vaccine

Economists can destroy “the vibe” at parties (remember parties?) by asking participants to “define their terms”. Very few terms are misused more than “cost effectiveness”. Austin Frakt did so in the May 11 New York Times, where he conjoined valuation of life with cost-effectiveness analysis (https://www.nytimes.com/2020/05/11/upshot/virus-price-human-life.html). Valuation of life refers to the benefits of saving a life – cost-effectiveness refers to the costs. In particular, he was looking at the cost of an additional year of good health.

In evaluation research, economists seek a resource allocation that gives the biggest bang for whatever batch of bucks we are spending. The “bang” refers to “well-being” in terms of additional years of life years, for example, less the cost of prolonging that life or the “buck”. An intervention is termed economically efficient if it maximizes the difference between the bang and the buck. In contrast a benefit-cost analysis simply compares the bang and the buck. If the bang exceeds the buck then there is a Benefit-Cost ratio that exceeds 1. This is a much lower bar than economic efficiency, because there are conceivably lots of allocations that may have a B-C ratio greater than 1, but are not “efficient.”

Cost-effectiveness analysis is neither. Early uses of cost-effectiveness analysis were in the purchase of armaments after World War II. The “Iron Curtain” had come down and we wanted to prevent a war with the Soviet Union. Our opponents had fighter planes and we needed fighter planes. Our opponents had missiles and we needed missiles. Our opponents had submarines, and we needed submarines. A decision might be made to procure 200 fighter planes, 100 missiles, or 10 submarines. Cost-effectiveness analysis was to guide us to the least expensive way to make each of those purchases. Lurking in the background were the benefits of avoiding another war, but no one seriously sought to put a valuation on them – how, exactly does one value “freedom”. The decision had been made, and the procurement was performed (sometimes more effectively than others) to get the fighters, missiles, or submarines.

In the health sector cost-effectiveness has referred to cost per incremental improvement, where the cost is in the numerator and the effectiveness is in the denominator. Frakt provides a good discussion in his article by referring to the cost of a “Quality Adjusted Life Year” or QALY. Your blogger notes that if a health care recipient receives a treatment costing $50,000 and it gives her one-quarter of an additional QALY, the cost per additional QALY is $200,000, that is $50,000 divided by one-quarter year. Is that a little or lot? Since no valuation is given, we cannot tell whether this is efficient.

In health policy analysis, evaluators have often used a “cut-off” point of $50,000 per QALY. That means that one should adopt an innovation if it costs $50,000 or less per QALY; if more, it should not be adopted. This is totally
arbitrary and has no relation to any sorts of benefits. Dozens of economic analyses (some by CDC staff economists) have shown why this is so. Frakt notes that more recently many health economists have adopted $100,000 to $200,000 for the cut-off point. This is no less arbitrary and no more right.

All that said, in May 2020, we must seek one or more COVID-19 vaccines … and quickly … and probably expensively, and we must use cost-effectiveness analysis to guide us. Vaccines will undoubtedly bring great benefits, just like we felt in the 1950s in terms of avoiding an unthinkable nuclear war, but no one is measuring benefits now. The term “Manhattan Project” is used as a comparison, and while hackneyed, it is apt. The apocryphal story about the July 16, 1945 explosion of the first nuclear device in New Mexico is that Project Leader J. Robert Oppenheimer didn’t know if it would work. Within 4 weeks, World War II was over.

A quick search for the Manhattan Project (https://www.ctbto.org/nuclear-testing/history-of-nuclear-testing/manhattan-project/) notes that it employed more than 130,000 people and cost nearly US$ 2 billion at the time, roughly equivalent to $28 billion in 2019 dollars. A (set of) vaccine(s), developed for $28 billion now would, without question, be cost-effective. We would be happy with twice that cost.

Allen C. Goodman
Professor of Economics
May 14, 2020

Flattening the Curve, and then Watching It Spike

The day before last your blogger drove his wife to the Tampa International Airport to catch a coast-to-coast flight. Encountering more traffic than expected, it was nerve-wracking to get to the drop-off area. Upon arrival, at 4:30 pm, we were the ONLY CAR at the entire Blue Terminal at TIA … on a Tuesday afternoon. It was like one of those bad “end of the world” movies, although it was not a movie. Although we arrived with only a 50 minute window, she easily went through TSA and got to the gate quickly.

She changed planes in Atlanta, and arrived on the West Coast 5 hours later. “How was it,” I asked her. “It’s hard to wear a mask for 5 hours,” she replied.

So what does this have to do with economics? We have flattened the curve by limiting exposure because people are not flying. It is working … and we still have over 80,000 (and probably over 100,000) people dead in less than four months. Can anyone imagine what things would have looked like if Tampa International Airport, and Delta Airlines were filled to normal levels of travelers, going all over the country and the world. It would be like injecting a deadly drug directly into a vein. Disease and epidemic everywhere.

Yet Republican politicians and their journalistic henchmen (that’s you, Lee Chatfield, Mike Shirkey, Nolan Finley, and Ingrid Jacques), are encouraging resistance (party affiliation makes little difference as Republican Mike DeWine in Ohio gets the same opprobrium as Democrat Gretchen Whitmer in Michigan). If the demonstrators are carrying loaded rifles … well they really didn’t mean that. They don’t want people to get hurt, but the people should be able to exercise their First (and apparently also their Second) Amendment rights.

Well …they didn’t mean airplanes, and they know things are bad in Southeast Michigan, but people at the top of the Mitten have the right to get exposed to COVID-19, just so long as it doesn’t come from the residents from Southeast Michigan who travel there every summer. Michigan residents should depend on the business people to do what is best for them, and us.

The problem with that is that it is not best for them, and certainly not best for us. The virus is an economic externality. We still don’t know who has it, and we don’t know how it is transmitted, and it contains a wallop that that we cannot stop.

Those who want to test whether we are flattening the curve should open the Universities, fill the stadiums (the Big House and Spartan Stadium), and the airplanes. Do it, and it will be like holding a lit firecracker in one’s hand to see what will happen.

Or … cut out the posturing … and the loaded rifles.

Allen C. Goodman
Professor of Economics
May 18, 2020

Race to the Top, or Race to the Bottom

As the United States starts to open up the economy from the medically-induced coma, the progress is uneven, and the results uneven as well. In a New York Times article this morning (https://www.nytimes.com/2020/05/18/opinion/germany-coronavirus-reopening.html), Anna Saurbrey quotes Karl Lauterbach, a Social Democratic lawmaker and an epidemiologist. Lauterbach notes that “The way we’re easing the lockdown is unsystematic”. Lauterbach is afraid that states may outbid each other to jump-start the economy.

The economics here are instructive. On the one hand, isn’t competition a good thing, to get people working, and to get goods in the hands of the consumers, taxes into the state coffers, and multiplier impacts into the spending? Surely we don’t want for the current (the last 3 months) situation, with Depression-level output and employment. Why not have a race to the top?

On the other hand … . We have an economic analysis for this. For many years, economists and policy-makers have used models to examine the sending of production and jobs to places where there are lower wages, lower safety standards and worse pollution. Isn’t this a race to the bottom?

Where the current situation differs is that when we send the jobs to Mauritius (your blogger had a terrific shirt made in Mauritius), Sri Lanka, Vietnam, or China, there is little feedback in terms of the lower safety standards, and particularly the pollution. The goods our cheaper for us, and the pollution is there, not here.

Suppose that Indiana or Ohio opens up faster than Michigan, so that factories in South Bend, Elkhart, or Toledo (with a long-time Tigers baseball farm team, the Mudhens), open up sooner. Workers, and shoppers cross the border, work, shop, bring back the virus, and infect others. This is not Mauritius – we have an open economy with Indiana and Ohio. Unlike our international ports of entry, there is no conceivable way to monitor these borders. The more that opens up, the more people and the more commerce (at least for now), the more danger for feedback. Imagine, if a large University, for example, in South Bend, a mile or two from the Michigan border, opened up its stadium for a football game.¹ Does anyone think the contagious results would stay in Indiana?

Preliminary results of re-opening have suggested that both business owners and consumers have, if anything, erred on the side of caution, but there are still voices (particularly at the highest level) clamoring for “full stadiums” and a full reopening. Let’s continue the caution.

Allen C. Goodman
Professor of Economics

¹ No University at this time has seriously considered doing this, so the example is “imaginary”.


Clark Clifford in 2020

Clark Clifford was an attorney, an activist in the Democratic Party, and (almost always referred to as) a "consummate Washington insider." In 1968, he replaced Robert McNamara as Secretary of Defense. In a 2006 interview, Steve Inskeep of NPR and author David Halberstam (author of The Best and Brightest) discuss the circumstances of Clifford’s appointment. (https://www.npr.org/transcripts/6490307).

Mr. HALBERSTAM: Well, he was afraid – [President Lyndon] Johnson was afraid that McNamara was unraveling under the pressure of being the principal architect of a war that was a failure. That he felt, in his own words, that McNamara had, quote, gone dovish on him. So he fired him, and Clark Clifford was brought in.

INSKEEP: Well, who was that man, Clark Clifford?

Mr. HALBERSTAM: Clark Clifford was an old-time fixer who had gone back to the Truman years. Johnson thought that he would have conventional thoughts about Vietnam. But Clifford instead, from the very beginning, thought it was a disproportionate investment - didn't work. And where some of the more senior people refused to listen to the word - the reporting coming out of the country - Clifford, from the start, began to ventilate the process and understood that it wasn't working.

INSKEEP: What did he begin to do?

Mr. HALBERSTAM: He began to try and convince the president that it couldn't be done. He began to try and turn the entire Defense Department to a recognition of the limits of what we were doing, and to convince his colleagues in the other branches of the government that it wasn't doable. And he was pretty lonely in the trenches - Clifford was - for quite awhile there.

So, what on earth does Clark Clifford (who died in 1998) have to do with COVID-19? After becoming Secretary of Defense, Clifford had a briefing with some of the military chiefs of staff, and was told that the US would have to keep a troop presence in Viet Nam for a while.

“How many?” asked Clifford.
“About 100,000”, he was told.
“For how long”, asked Clifford.
“Thirty years”.

According to legend, Clifford marched into the President's office and told him that he didn't know about other people, but he (Clifford) was not going to throw away his reputation by supporting an expensive (in terms of money and lost lives), and futile endeavor. President Johnson subsequently chose not to run for another term, President Nixon was elected in November 1968, with a "secret plan" to end the war, and the US presence ended by 1975.

At this date (May 20, 2020), over 92,000 Americans have died in less than four months. We will almost certainly reach 100,000 by the end of May. We could be closer to 200,000 than to 100,000 by the end of 2020. Suppose that with
masks, gloves, social distancing, emptied classrooms and stadiums, we settle
down to a "steady state" of 30,000 – 50,000 deaths per year until a vaccine comes.
President Trump and his supporters have indicated that that may be acceptable.
Columnist Margaret Sullivan wrote on May 10:

“We don’t shut down our economy because tens of thousands of people die on the
highways,” said Sen. Ron Johnson (R-Wis.). “It’s a risk we accept so we can move
about.” President Trump also argued that car-related deaths are “far greater than
any numbers we’re talking about.” https://www.washingtonpost.com/lifestyle/media/trump-wants-
america-to-normalize-coronavirus-deaths-its-the-medias-job-not-to-play-along/2020/05/09/72de4c32-9090-11ea-
a9c0-73693422d691_story.html

Your blogger used the identical analogy in his March 24 entry. The
difference is that we can quantify the benefits of time saved in leisure, travel, and
delivery costs by not having a 15 MPH national speed limit. We have made that
trade-off. That said, driving has become far safer in terms of deaths per
passenger-mile than it was in the 1960s when your blogger got his first driver’s
license.

COVID-19 is new, it is deadly, and we don’t know how to make it safer, and
continue to do everything we used to do. Opening up the economy too fast will
lead to more deaths. Putting full crowds into Senator Johnson’s U of W Camp
Randall Stadium for football games, with the knowledge, technology and crowd
control that would make America “run” again, would lead to hundreds if not
thousands of deaths. We let people drive their cars, but we have speed limits, and
we warn them not to drive on icy roads … and we have police to enforce the rules.

So:

“How many COVID-19 deaths are acceptable?”, we asked.
“Maybe 30,000 – 50,000 per year”, they answered.
“For how long?”

We need a Clark Clifford, and we need him inside the White House.

Allen C. Goodman
Professor of Economics
Memorial Day – 2020

As of today, May 25, 2020, Memorial Day, approximately 99,300 Americans have died from COVID-19. In three-plus months the United States has incurred a loss (valuing human life at $5 million per life lost) of life valued at approximately $500 billion dollars. This is equivalent to about three years of deaths from traffic accidents. Slightly over 58,000 Americans died from all causes in 1964-1975 Vietnam War.

Your blogger is not an epidemiologist, but the number of deaths seem to have plateaued recently at between 1,000 and 1,500 per day. Extrapolating this through June and July would suggest at least 30,000 more deaths, and probably closer to 60,000 deaths by August 1, leading to a total of between 150,000 and 160,000 deaths. The economic costs are staggering. It does not take a computer to do the math.

A study by Columbia University researchers estimated that approximately 36,000 deaths could have been averted had the United States instituted lockdown measures one week sooner. This is a PRELIMINARY study that has not undergone peer review. It is sensitive to all kinds of modeling assumptions. Your blogger downloaded the article. It is THICK, and it is hard to read. Your blogger knows about this, because he often writes articles that are thick and hard to read.

What is important is that this is a “bottom up” model. This contrasts to a “top down” model in which the researcher calculates a model for an aggregate (say the entire US), and distributes the results down to the lower (for example, county) level. In a sense, top down modeling uses a sample size of 1 (the aggregate), and distributes down. The local results are extremely sensitive to the distribution model. Ideally, top down and bottom up models give the same policy results. Your blogger prefers bottom up models because they model the differences among the component areas more clearly.

The Columbia researchers starts at the county level among the 3,142 US counties. They concentrate on the 311 US counties with cumulative cases over 400 as of May 3, 2020. We know which ones they are – Cook (Chicago), Kings, Queens, Bronx, and New York (New York City), Wayne (Detroit), Los Angeles, Nassau (suburban New York City), Bergen, Essex, and Middlesex (New Jersey), and so on. This is where the action is. The authors aggregate up the results. They report 95% confidence intervals around the 36,000 “point estimate” between 30,200 and 40,700.

The public and the press are hungry for news, and this is news. There have been numerous questions about the underlying model assumptions by reputable academics. The research will be vetted, questioned, and possibly re-analyzed. The political reaction was predictable. President Trump reacted by
saying “It's a disgrace what I watch from this fake news media and from some of these liberal institutions. Columbia is a liberal, disgraceful institution to write that because all the people that they cater to were months after me, they said we shouldn't close it.” (https://www.axios.com/trump-columbia-study-coronavirus-covid-deaths-18552947-6664-4a06-8b66-cc20576bb7f5.html).

Is this line of research an appropriate topic? The answer has to be “yes.” It is no less appropriate than asking what would have happened if we had evacuated a coastal shoreline earlier in the face of a hurricane. It is no less appropriate than asking what would have happened had the Salk and Sabin vaccines been delayed, or not developed. It is no less appropriate than asking what happens with people refuse to vaccinate their children for MMR (measles, mumps, rubella) or for chicken pox.

It is clear that lockdowns saved lives. It is quite likely that they have saved a lot of lives, and had they been done sooner, they would have saved a lot more. We are easing them slowly, and we hope that we are doing the right thing at the right time. Another 30,000 lives per month is a lot to lose.

Allen C. Goodman
Professor of Economics

Your blogger first learned about macroeconomics in the mid 1960s. Times were good, the economy was growing at a rate of 4 to 5 percent per year, and unemployment was below 4 percent, in large part due to the expenditures for the Viet Nam War. However, all of our parents had gone through the Great Depression in the 1930s, and it was never out of their minds. No one wanted to see something like that again.

The study of macroeconomics emerged in the post World War II economics profession, in reaction to the Great Depression. Prior to that, a doctrine called Say’s Law\(^1\) stated “A product is no sooner created, than it, from that instant, affords a market for other products to the full extent of its own value.” Stated in another way, as long as people were willing to work, they would earn money from selling their goods or services, and they would be able to spend it on other goods and services. So, there would not be unemployment, and people would have the wherewithal to buy what they wanted. It is often phrased “Supply creates its own demand.”

Adherents of Say’s Law viewed any economic downturn as temporary. Workers were demanding too much, or sellers were charging too much. If markets were allowed to adjust, everyone who wished to work could do so. Advocates of Say’s Law had elegant models to show how if wages and prices fell enough, the economy would always return to full employment. The Depression started at the end of 1929 and lasted into the early 1940s. It was not short term. There was not a simple return to full employment.

John Maynard Keynes attributed the Great Depression to a collapse in demand for goods and services. His cure for this problem was for the government to buy things, to create demand. It was used fitfully in the 1930s by the Western democracies (ironically most effectively by Germany), but World War II created the demand to end the Depression. As World War II ended, economists worried that the economy would fall back into Depression. In large part, because the US was the only intact economy after the War, there was great world demand for US goods and services. The 1950s showed stable economic growth that moved into the 1960s.

The boom of the 1960s gave way eventually to “stagflation” of the 1970s and many economists argued that the government should get out of the way. Economic decision-makers would figure them out, and the government policies would not be effective. Critics of the Keynesian analysis argued that there was a “natural rate” of unemployment related to labor market search frictions, and attempts to go lower were essentially attempts to “fool Mother Nature.” Yet over time the natural rate decreased, and after the 2007-2009 recession, the economy

\(^1\) A Treatise on Political Economy (Traité d'économie politique, 1803) from https://en.wikipedia.org/wiki/Say%27s_law.
grew for almost ten years, albeit by smaller annual increments than in the past. The 2017 tax cut was essentially Keynesian in scope. It was an increase in aggregate demand into an economy that was at close to full employment.

Then came COVID-19. In the three month period ending this weekend (the end of May 2020), both aggregate supply and aggregate demand have tumbled. Aggregate supply shut down first. Large parts of the US (and world) economies simply shut down. Aggregate demand followed shortly. The workers without money had little to spend. Large sectors of the economy, particularly those related to people coming together in large places, such as airlines, cruise ships, downtown districts, and sporting events, have collapsed. Universities limped through the spring, but most do not know what the Fall will bring. Auto factories have closed, re-opened, and closed again.

Depending on Say’s Law will not help us in the next twelve to eighteen months. Supply is limping back, due in large part to workers’ collective reluctance to put themselves in danger. There will not be a lot of supply to create the new demand. In a sense Say’s Law is working as stated … but there is not enough supply to create its own demand.

The government knows how to create the necessary demand. It is not wrong to do so. It is essential.

Allen C. Goodman
Professor of Economics
Searching for the Number

It is natural to seek to describe items using a single number. Suppose someone exclaims “there’s a big guy coming down the street”. Onlookers observe that he’s 5’6” tall. That’s not big. But what if he weighs 300 pounds. That’s big. We have needed two dimensions to describe him, height and weight. If he was 7 feet tall, “big” would almost certainly refer to height. Both dimensions matter.

With the onset of COVID-19, the State of West Virginia seemed impervious to the disease. While all of its neighbors had infections and deaths, West Virginia did not. Why? They weren’t testing. When they started testing, they found … infections and deaths. At the outset, in West Virginia and elsewhere, death rates seemed high, because asymptomatic people (who had the disease) were not being tested. As more people were tested, it was discovered that a lot of people had the disease (the denominator of a fraction), but only a fraction (although too large a fraction) died from it (the numerator). To describe the death rate, analysts need the numerator and the denominator. Both dimensions matter.

Your blogger has taught economics for over 40 years. If there is a truism, it is that “complex” things require complex measures. One can’t measure “big” with one number; one needs two, sometimes three. Measuring the impact of COVID-19 needs many more than one number. New methods are being proposed daily.

On Friday, the Federal Government announced its measure of the unemployment rate. The April unemployment rate was 14.7 percent, and many economists expected the May rate to push 20 percent. Everyone was surprised when the percentage announced was 13.3. What happened? How could everyone have been so wrong? And … are things as good as they look (although 13.3 percent is pretty terrible).

In the July 5 New Republic, Timothy Noah explains:

But that 3.1 million job gain is wiped out when you take into account a statistical glitch that the BLS [Bureau of Labor Statistics] admits to—the misclassification of about five million workers as “employed” who said they were “not at work for other reasons” than losing their jobs. The likelihood that these people will get their old jobs back diminishes with each passing day. But even aside from the question of job viability for these workers, the BLS is required [emphasis added] to classify such people as unemployed, and for some as yet ill-explained reason, it didn’t. If it had, the BLS says, the unemployment rate would have risen in May to 16.1 percent. And that’s before seasonal adjustment to the jobless count, which would raise the rate even higher. https://newrepublic.com/article/158062/donald-trump-unemployment-coronavirus-stimulus
Your blogger is an economic statistician, and recognizes that Bureau of Labor Statistics economists are among the best in Washington. They have always taken pride in the professionalism of the reports. Someone put out a wrong number. One hopes that is all that it is.

Timothy Noah observes that people are returning back to work … and that is good. “We all want unemployment to go down, so that really is something to celebrate—however cautiously.”

Employment, and unemployment are very complicated. It has long been understood that when the economy contracts, the measured rates do not rise as much as is “really happening”, because so-called “discouraged workers” leave the labor market and are no longer considered unemployed.

The case at hand is complicated. The reality is that workers who are “not at work for other reasons' than losing their jobs” ARE unemployed. They are not working.

Employment and unemployment are complicated. COVID-19 is complicated. Big people are complicated. We need (many) more than one number to describe them.

Allen C. Goodman
Professor of Economics
COVID-19 Three Months In: Random Thoughts

1. Roughly three months ago the United States recognized the major potential impact of COVID-19, as people started dying and the economy went into Depression. As of this date (June 10, 2020), over 115,000 people in the United States have died from COVID-19. Valuing their lives at five million dollars each provides a loss estimate of $575 billion.

2. Your blogger and his partner drove from Florida to Michigan the week of June 1. As one rides north on I-75, the “mask gradient” becomes much steeper. Michigan and Ohio are far more observant of social distancing and personal protection measures than is Florida. The percentage of people masking in Michigan is much larger than in Florida.

3. Daily reports show that states that “opened up” earlier, including Arkansas, North Carolina, Florida, and South Carolina, are showing major increases in the number of COVID-19 cases. There are reports today that the Republican convention plans to move from Charlotte, North Carolina (which will not guarantee big crowds) to Jacksonville, Florida (which apparently will).

4. The stock market, while not recovering to its February highs is right about where it started the year 2020. The S&P and the Dow Jones averages are slightly below their December 31 closes, and the “tech heavy” NASDAQ is almost 10 percent higher.

5. “Re-opening” the economy will likely be slow, and with stumbles. While the tech industries seem to have held up well, industries that depend on large groups of consumers randomly congregating (entertainment, dining, education, sports) will face difficulties. At this date, Major League Baseball has still not agreed on plans for the 2020 season.

6. There will be tangible losses to human capital of our young people that will be hard to measure. Most public school students spent 20 to 25 percent of their 2019-2020 school years in makeshift circumstances. It is hard to imagine that Fall 2020’s 4th graders will be as prepared as their previous counterparts.

7. It is highly speculative to conjecture when musical arts, sports, and other activities that children ages 6 to 17 use to gain performance skills, and learn collaborative skills, will resume. We face a potential “lost generation” in the arts, and in sports. While again hard to measure, this is a tangible societal loss.

8. When one conducts clinical trials, there is a “stop rule” that is invoked if the intervention is harming significant numbers of people. Are US decision-makers prepared to invoke “stop rules” if and when the colleges/restaurants/casinos open up, and COVID-19 rates spike? If so, what will they be? If not … ?

Allen C. Goodman
Professor of Economics
How Should We Reopen? Round 3 – The Health ID Card

Your blogger (YB) does not typically go on rants. They are strenuous, and generally unproductive. The loud voice scares people away. It is better to try to persuade … softly. This afternoon, an excellent interview of Paul Romer by Russ Roberts ([https://www.econtalk.org/paul-romer-on-the-covid-19-pandemic/](https://www.econtalk.org/paul-romer-on-the-covid-19-pandemic/)) led to the discussion that if people had the right information (about COVID-19) “most” of them would do the right thing. That is, if they were well, they would go out, and if they were sick, they would stay home. Ignoring the BIG question of what “most” means in this case, it brings us back to the question of how we know whether we (and they) are safe.

In a previous blog ([http://allengoodman.wayne.edu/Blog/Reopen2.pdf](http://allengoodman.wayne.edu/Blog/Reopen2.pdf)), YB wrote about the adult film industry with their ID cards that had to be presented when appearing for work. These cards certified that the actors did not have sexually transmitted infections. No card, no work.

Here comes the “mini-rant”. Over the last several years YB has had contact with at least five different health care organizations. EVERY TIME he goes somewhere new, he must fill out a new form, generally on paper, and almost always, it is transcribed with inaccuracies. This exchange happened within the last couple of years.

Nurse: “We see here that you have arthritis, psoriasis, high blood pressure, diabetes, and skin cancer.”

YB: “I don’t have diabetes.:

Nurse: “It says here you have diabetes.”

YB: “That information is inaccurate.”

YB has NO card other than his Medicare card and his insurance ID. He has several credit cards with which he can move thousands of dollars securely. He carries all of his referrals and records on a flash drive. Recently, he asked if he could insert the drive into the doctor’s laptop. That was fine with the doctor. No one had ever asked him to do this.

Why has our medical records system been so bad? In short, the doctors liked it that way. They claimed that they had to protect patient confidentiality. They claimed that the records systems did not allow them to share records. They claimed that there was not a standardized system. They claimed the HIPAA required it. YB has believed for at least thirty years that the EMR (electronic record system) was and is bad because a transparent system makes it easier to monitor bad (and good) work. If Clinic A, or Insurer B cannot readily access the data from Hospital C, then Hospital C faces less oversight. Along with that, there
is the very real probability (indeed the almost certainty) that there will be mistakes in transmitting data from Hospital C to the clinic or to the insurer, and vice versa.

The time is long overdue for a national health ID Card with insurance coverage, medical conditions, prescription drugs, COVID-19 tests and everything else. As YB said in his April 18 blog, card readers could be provided to workplaces, restaurants, libraries, University lecture halls, even arenas and stadiums. Put your card in the slot, test negative, you get to work, you go to the restaurant, or to the lecture. You don’t want to get tested … you don’t get in.

Isn’t it time?

Allen C. Goodman
Professor of Economics
The Distributional Aspects of COVID-19

COVID-19 has shown itself to be distributionally unfriendly. People of color have suffered illness and death in disproportionate numbers to the rest of the population. Low income and service workers, in dangerous occupations have also suffered disproportionately. No “compensation” has been offered that can come close to indemnifying those groups that have suffered so greatly.

A more subtle distributional impact is emerging in reopening the economy. The younger and healthier members are urged to go back to work (albeit with request that they waive the ability to sue for COVID-19 related illnesses or death). The argument is that if they get sick, they will for the most part recover, and go on about their business. If this happens with enough people, we may get to some kind of herd immunity and the pandemic will die out. People over age 60 (your blogger is 72) should stay at home, out of harm’s way, until the pandemic is over.

Roughly speaking, this was the Swedish approach. While large portions of the world’s economy went into a medically-induced coma, observers saw a Swedish society that seemed to be going on “as normal”, presumably without the economic dislocation. However, things aren’t quite what they seemed. Epidemiologist Keren Landman wrote (https://elemental.medium.com/its-not-looking-good-in-sweden-right-now-624e7fe0a1ed):

The goal of Sweden’s strategy was to avoid the financial collapse facing countries whose near-universal shutdowns have led to severe economic contractions, while simultaneously slowing disease transmission to avoid health care system overload. But the strategy seems to be resulting in more deaths: Sweden’s daily per capita Covid-19 mortality rate, already high in late April, is currently higher than any other European country—and an order of magnitude higher than that of its neighbors Finland and Norway.

Despite the country’s ban on care home visits, Covid-19, the disease caused by the SARS-CoV-2 coronavirus, ravaged the largely older populations living in these homes.

Professional economists are uncomfortable with distributional analysis. It does not fit in well with mathematical models, and it involves interpersonal comparisons, with which economists are also uncomfortable. If one taxes a rich person a dollar to give to a poor person, is “society” better off because the poor person might value that extra dollar more than the rich person. While the answer would seem to be “yes” to any thinking and caring observer, putting this into models is, yes, uncomfortable.

Many people ages 65 and over have been somewhat shielded from the worst of the financial shocks of the pandemic. Social Security payments have continued unabated, and stock prices, after a massive sell-off are back to where they were at the beginning of 2020. Portfolios aren’t great, but they are OK. It is
not clear what is happening to housing equity (few buyers and few sellers), but lots of elderly people are not saddled with mortgages, and those who have them can refinance and bargain-basement interest rates.

They are not shielded from the danger brought about by six or more decades of aged bones and tissues, episodes of cancer, and compromised auto-immune systems. They do not want to go to concerts, dine out, or face large classrooms of students.

The younger generation are stronger and more durable. They must also care for young children, and they are disproportionately likely to lose their jobs. If they are running businesses, they are in danger of losing them. Some of them must take care of their older parents and relatives. While healthy, they face greater financial losses both now and into the future.

Remarkably, some of the programs seem designed to compensate the younger generation, in what amounts to a transfer from the elderly. Payroll protection plans, unemployment insurance, and the $1,200 payment from the March 27 CARES Act provide help, however imperfect, to those who need it a lot. This is a redistribution, again, however imperfect.

The COVID-19 virus economic collapse has laid bare the serious age, race and class-based inequalities of our 2020 society. Measures to address them have worked to the extent that they have been tried. More, and bigger, measures will be necessary as we try to move to recovery.

Allen C. Goodman  
Professor of Economics
The Right Amount of Care

Since March, most Americans without acute medical or dental complaints have stayed away from providers’ offices. Dentists almost all closed down – the liquification that accompanies most dental procedures was deemed to be far too dangerous given a disease (COVID-19) that is carried in droplets. Elective surgeries to medical providers were severely curtailed, and routine office visits were canceled or (later) replaced in some cases by tele-medicine sessions.

In a June 22 New York Times (https://www.nytimes.com/2020/06/22/opinion/coronavirus-reopen-hospitals.html) article, Dr. Sandeep Jauhar reports a recent survey that indicated that only one in ten respondents said their health or a family member’s health had worsened as a result of delayed care. Eighty-six percent said their health had stayed about the same. After enumerating a bunch of reasons, Dr. Jauhar conjectures that perhaps “Americans don’t require the volume of care that their doctors are used to providing.”

Maybe. Health economists have a simple way of defining the “right” amount of care, defined by days of care, visits, or dollars. It is where the incremental (or marginal) benefit equal the incremental (marginal) cost. Less care means giving up treatment that brought higher benefits. More care means getting treatment that while possibly helpful costs more than it is worth.

A prime example of the issue involves insurance copayments. When your blogger (YB) was younger, he had hair and some hair-related skin problems (eczema, psoriasis, dandruff). He also had health insurance that bought him prescription shampoo for two dollars per bottle at a time that Head and Shoulders shampoo cost seven dollars per bottle. The retail price of the prescription shampoo was fifty-five dollars. Did YB buy it? Of course he did, even though the travel cost to pick it up exceeded the shampoo cost. Was this excess treatment? Almost certainly.

Insurance does that. Through coinsurance, people pay less than the true cost of their treatment – as a result they buy more than they should. This insurance-related behavior is called moral hazard, although it is not clear what is moral or immoral about it. COVID-19 essentially raised the “price” of going to the provider. Raise the price, and people buy less. This is a central tenet of economics.

YB did not go to the doctor, and he did not go to the dentist. In mid-April a tooth started to throb. No dentist … be extra careful, floss a lot, and don’t chew the ice. This is good preventive behavior. Upon seeing the dentist this week, YB discovered that he did not need to worry about the throb … but he does need a crown on the other side. YB also had a telemedicine visit with another provider. It was suitable to the type of examination needed. There has been a lot of discussion about telemedicine, and COVID-19 may have let the telemedicine “genie” out of the bottle.
June 25, 2020

Are we no less healthy than we would have been otherwise, and did the curtailment of visits due to COVID-19 expose previous “excess use” of health care? We need a stronger test of the hypothesis, and it will be difficult to provide one. It is hard to measure the health of people who do not get their health measured (that is they don’t go to a doctor or self-record items like weight or blood pressure). Moreover, we must ask whether those who curtailed visits will make up for the lost health care in the last six months of 2020 or later?

Studies that ask subjects to “recall” how they felt are afflicted with memory bias. About the best inference to be drawn will come from examining subjects six to twelve months hence and relating their health conditions (at that future time) to the amount, and timing of their care including and directly after the COVID-19 lockdowns and slowdowns. This is a “natural experiment” and the results, of necessity, will be messy.

The question of the “right amount of care” is an important one, and the elimination of wasteful health spending is a vital component to the reduction of health care expenditures. The finding that for the short term certain chronic treatments can be postponed without too much harm, seems sensible enough, but the inference that most of the care was not needed is speculative.

Allen C. Goodman
Professor of Economics
All It Took Was One Packed Bar

This story is by Tresa Baldes in the Detroit Free Press (June 27, 2020) -

All it took was one packed bar. An infected patron. And a wild party afterward.

This is the toxic combination that has led to a new wave of COVID-19 cases in the Grosse Pointe community, where at least 30 new cases in recent days have been tied to an outbreak at a popular East Lansing bar almost 100 miles away.

Harper's Restaurant & Brew Pub saw shoulder-to-shoulder crowds after reopening earlier this month, including some college students from the affluent Grosse Pointes who unknowingly got infected and brought the virus back home. According to multiple families that are now in quarantine, one of those students who visited Harper's came into contact with a friend who held a huge house party in Grosse Pointe Woods, where dozens of friends partied without masks and social distancing, they said.

The party was held on a Friday night, parents said. The host was symptomatic during the party, got sicker over the weekend and was tested for COVID-19 on Monday, though didn't share the positive results with friends until Tuesday night, parents said.

By then, the virus had spread among college-age kids hanging out for the summer …

As of late Friday, the number of COVID-19 cases linked to Harper's brew pub had increased to 76, according to Ingham County health officials.

Your blogger has been waiting for this to happen. YB is a University professor of forty-plus years of experience. In the past couple of months, he has been asked what he thinks about universities re-opening in the Fall. He has watched with interest the plans of Notre Dame University, the University of Michigan (his alma mater), Yale University (where he got his doctoral degree), his own University (Wayne State in Detroit) and just about anywhere else.

Notre Dame has announced that they will be starting the semester a couple of weeks early (in mid-August), and finishing up at Thanksgiving, in advance, they hope of the second wave of COVID-19. Notre Dame is about 100 miles from Chicago. When Notre Dame students visit Chicago over Labor Day, for a family celebration, for a family tragedy, or just a party with friends, how many will be infected, and how many will bring the infection back to South Bend. And then … what will Notre Dame do? What will Michigan do? What will Yale do? What will Wayne State do?

YB’s daughter was a Peace Corps volunteer in West Africa and she was teaching the children in the village about germs and hygiene. She put hot pepper powder on their hands and then told them to wash it off. They found that it didn’t
June 28, 2020

come off very well, tasted bad, and could make them uncomfortable if they touched their eyes or their noses with it without thoroughly washing with running water and soap. It could get on the clothes of others that they touched. It was infectious, although the effects ultimately were limited. Unlike hot pepper powder, germs cannot be seen or smelt with the naked eye.

With COVID-19, the impacts on other college students will lead to illness, and with the instructors, and other older adults, they could lead to death. The public has been anxious “to reopen”. We want restaurants, we want concerts, we want football. YB has asked about the external effects of filling up Michigan Stadium (the Big House) with 100,000 fans. The title of this article says it all.

All it took was one packed bar. Multiply that by 1,000.

Allen C. Goodman
Professor of Economics
Underinvestment in Education – The COVID-19 Story

Your blogger (YB) and his wife/partner/lover are both university professors. Like many, we observed the COVID-19 jolt in the way universities are run and the move to online, off-campus education. We have seen the federal government pledge to rebuild the airline industry (“Boeing is a great company”), the cruise ship industry, and other parts of the private economy.

By the time classes start on September 1, YB + partner will have spent over $2,500 out of pocket to get themselves ready to teach. Both have bought new computers, professional-grade earphones and microphones, and we have upgraded our home wi-fi system to handle the 24 hour per day use at over double the intensity. Shed no tears for us – we can afford it, and we owe it to our students. Many colleagues in the private sector have had their employers purchase them more powerful machines, and help move their “office offices” to their homes. Shed no tears for them either.

The states and the cities are seemingly being left to fend for themselves. In particular, the education sector has been told to plan for:

1. Teaching as usual;
2. Teaching as usual, with plans to go online at a moment’s notice;
3. Teach online, and depend on students/parents/caregivers to shoulder major burdens of the teaching.

YB is not a betting man, but he would put 99 percent of his chips on #3.

Over the last several decades, there have been chronic reports of public-school teachers who must buy supplies for their students, finance trips, out of their own pockets, or bring in supplies to clean filthy classrooms. This was IN THE SCHOOLS. When COVID-19 hit the public schools, they too went online. Have the public-school teachers been supplied with new computers, enhanced wi-fi, or professional grade earphones and microphones? Hardly. Instead they are all being told to hunker down in the face of eviscerated state and local education budgets. There may be furloughs and there may be lay-offs.

Even if they go back to school, are the buildings set up for social distancing, masking, or appropriate meals? Think about where you went to school, or where your children go to school. YB’s office building at his own university is totally unfit for use in the COVID-19 economy. There are common halls, common comfort facilities, common stairways, and common elevators. There will be a common outbreak of COVID-19 when we reopen.
July 2, 2020

The lack of investment in our educational system reflects economic insanity now more than ever. Our future depends far more on the creation of human capital among those ages 21 and under, than whether Boeing can get their 737-MAX out three to six months earlier (and for what … no one is traveling).

So, let's get the priorities straight. We have deferred the maintenance on our educational systems for decades. Economic sanity dictates that we remedy these deficits … now.

Allen C. Goodman
Professor of Economics
How Should We Re-Open? July 4 Edition

Today is July 4. On April 16, your blogger (YB) wrote his first blog on reopening. Less than three months later, it is appropriate to revisit it and see where things stand. The original material will be in red – the commentary will be in black.

How do you feel when the guy who cuts your grass sneezes without covering his mouth while doing his job? How about the person in the next office? How about the person at the next restaurant table? The answers are obvious, yet this simple model (yes, it is a model) can educate us about the problems that we are facing in re-opening the economy.

How fast we re-open is related to the number of interpersonal contacts related to the job. Let’s start with the easy ones. The person who cuts my grass (or fertilizes my lawn and trees) generally wears a mask anyhow. Whether his or her partner or children are sick is of little concern, whether it is a cold or COVID-19. People in these categories can go to work fairly quickly.

This has largely happened. When the pandemic struck, YB was in Florida with his wife. He has since returned to Michigan, where the initial pandemic exploded in late March. Again, most outdoor types of activities (as noted above), have resumed (in Florida, most of them never stopped).

Offices and factories are less controlled, but there is still some degree of control. Employers know who should be there, and they can trace their illnesses and the people they have been with. It is more costly, but conceptually it is tractable. In an earlier post, your blogger described the number of surfaces, the amount air and the amount of sweat in a factory. It is daunting, but not insurmountable to do this kind of tracing. These businesses could open up next.

There have been fits and starts. Many manufacturing plants have opened, only to close again, due to infections. Office workers are being called back … very slowly. Large corporations, as well as municipal governments, are telling their workers that they should plan to work at home through the end of calendar 2020.

What about classrooms, lecture halls, dormitories, schools, shopping malls, arenas and stadiums? How will we trace 20,000 people at Little Caesar’s Arena, 40,000 at Comerica Park, 60,000 at Ford Field or 100,000+ at the Big House? Casinos are full of smokers and drinkers around a table or in front of a (sanitized?) slot machine. Do you remember your favorite intimate dining spot? How intimate will it be with
half the number of tables, and with your servers wearing gloves and masks? How profitable will it be with half the number of customers?

What about these facilities? Harper’s, a popular “watering hole” in East Lansing opened up, did everything they could to promote social distancing, and within two weeks there were 158 COVID-19 cases spread over 15 Michigan counties. They have since closed. Florida has opened up beaches, and closed them up. Universities still do not know what they will do, and the start of classes for many of them is only six to seven weeks away. For some public schools, the start is even sooner.

Schools that state that they will be welcoming students in person have presented scheduling plans (for two-day per week classes, half of the students attend one day; half the other) that challenge existing pedagogies, and strain credulity about students’ social behavior. No US professional team sport has re-opened, and college sports (although they will not admit it publicly) are seriously rethinking their seasons.

As a younger academic, your blogger studied moving behavior for households, and was advised that the best way to find the movers was to hire a private investigator (PI). While expensive, PIs knew what they were doing. What follows is that tracing diseases will require appropriate tests, appropriate testing facilities, and (probably thousands of) tracers who know what they are doing. Re-opening some parts of the economy will be very expensive … and frighteningly slow.

Contact tracing, at the level that it would be necessary, will need to be funded federally, and with big dollars. This has not been done. The organization seems largely to have occurred at the local and state levels, and one must ask what happens when people will begin traveling. Will we be contact traced at TSA checkpoints (where, by the way, they routinely unmask travelers in close proximity to each other)? Contact tracing is also fraught with privacy issues regarding tracing via cell-phone chips and apps, as well as other even more invasive technologies. One need not be a Big Government “hater”, anarchist, or Luddite to be seriously frightened by these possibilities.

Finally, isn’t it time that we looked at how other countries are doing this? As a health economist, and textbook (The Economics of Health and Health Care, 8th Edition) co-author, YB has often looked to the health care systems in other countries for guidance. They do lots of things differently, and yes … lots of things better. Isn’t it time?

Allen C. Goodman
Professor of Economics
COVID-19 is a Tax, and a Big One

In his first blog, on March 16, your blogger (YB) talked about how diseases and epidemics serve as taxes. This week he had an episode that indicated exactly how this taxation worked.

In early June, YB made a routine appointment with his ophthalmologist (eye doctor) for a routine examination. YB is well over 65 and it is wise to check for cataracts, glaucoma, and general eye health. Besides, his current pairs of eyeglasses are so scratched that they need replacing. The appointment was made for July 14, and duly noted on various calendars.

This past Tuesday, YB got a phone call from the doctor’s office:

**Office**: Dr. Goodman, can we reschedule your eye appointment from July 14 to August 3?

**YB**: Sure – let me wipe my shaving cream off the phone (calendar/alarm clock/Sudoku puzzle), and put the new date on my calendar. Can I ask why it is being rescheduled?

**Office**: Once we reopened in early June, we were using our usual schedules. We’ve discovered that with enhanced cleaning measures, it is taking us more time to see patients. We can’t see as many in a day, and we have had to reschedule.

This, readers, is a tax increase. Increased taxes lead to decreased quantity and also lead to increased prices. The question of health care prices is better left to another post, but the decreased quantities are real and substantial.

Now about schools. No serious educator is talking about “school as usual” this academic year (which in many places will start in early August). Spacing students is like spacing eye doctor patients. If they meet in school buildings (that were never built with something like this in mind) smaller groups of students will be meeting for fewer days each week, in rooms that will have to be made cleaner every day than they were the day they were built. Make no mistake. This is a tax increase. Increased taxes lead to decreased quantity and also lead to increased prices (sound familiar?)

The COVID-19 pandemic has levied enormous taxes on the US population. We could avoid some of the taxes by flattening the curve, especially in the places that thought they were immune to it. Taxes land on people who can’t avoid them … also on people who won’t avoid them.

Allen C. Goodman
Professor of Economics
The States and the Great Lockdown

Ben Bernanke, wrote an excellent article in the July 15 New York Times entitled "Ben Bernanke: I Was Chairman of the Federal Reserve. Save the States." In this article, Chair Bernanke notes that in the 2009-2010 recovery effort to the “Great Recession”, Congress responded with a stimulus package of nearly $800 billion. However, that stimulus was partly offset by cuts in spending and employment by state and local governments. As a result, unemployment stayed stubbornly at levels of 9 and 10 percent in 2009 and 2010, and fell only slowly through the succeeding years.

Why is that? The federal government can spend without limit and has been doing so recently. These expenditures have made “The Great Lockdown” somewhat less bad than it might have been. Unemployment has been well over 10 percent, but much less than the 20 percent that many (including your blogger) had feared.

The problem, notes Dr. Bernanke, is that the states cannot spend without limit, and must run balanced budgets. If their revenues fall, their expenditures (on schools, roads, and other governmental items) must fall. These reduced state expenditures will essentially “undo” the stimulus that the Feds have provided. We could be stuck with double digit unemployment for months if not additional years.

The cure is for the Feds to GIVE money to the states. It’s not like there is nothing to spend it on. Re-opening the schools will cost billions of extra dollars to make them safe for students and teachers. Michigan’s roads still “suck”, and will suck for even longer if maintenance is deferred. Additional monies to support Medicaid for those who have recently (and perhaps permanently) lost their jobs and their health insurance will also billions. What are we saving it for?

Senator McConnell has asserted that they don’t want to bail out states that have been reckless with their spending. How is preparing schools for students “reckless”? How is making the roads (one could dare say in Senator McConnell’s home state of Kentucky) passable “reckless”? How is protecting the health of the poorer state residents reckless, despite the fervent efforts of Texas and Florida to continue to deny them enhanced Medicaid?

This is not only humane policy, but also good macroeconomics. Let’s try it.

Allen C. Goodman
Professor of Economics
Opening Schools

Your blogger (YB) and his Department Chair spent three days this past week scheduling an in-person exam. The experience reinforced YB’s long-standing fears about the problems of reopening schools. In a nutshell, things will be time-consuming, costly, and potentially dangerous.

YB’s place of employment is no secret (Wayne State University in Detroit), and YB has been proud of the University’s response. The President who is both a physician and an epidemiologist, has been (almost brutally) honest about the problems of reopening. He has put together an outstanding set of committees to try to foresee the problems, and to come up with solutions. The University has been solicitous of faculty preferences in terms of coming in to teach, teaching hybrid courses (some meetings in person, some online), or going entirely online. YB is old enough to worry about in-person classes (he receives Social Security), and has some underlying health risk factors. He is grateful for the University’s support. Wayne State has been good to him.

In our economics department, as in most US economics departments, students take “qualifying exams” in microeconomics and macroeconomics. We postponed our May 2020 exams to late August because of the COVID-19 pandemic. This summer, we decided that we would have to administer these two exams, and late August (just before Fall classes begin) seemed to be a good alternative. Our Department’s Graduate Committee voted to hold the qualifying exams in person. Because no one is taking both of the exams, we can hold them at a single time, in a single place.

Recognize, please, that scheduling an exam for eight people is usually simple. Find a classroom nearby, set the time, assign proctors to oversee the exams, and let them start. For this exam, we need to do the following:

- Go to the University Public Health and Academic Restart committees for approval to hold the exam;
- Find a room that will accommodate 45 to 50 people, in order to maintain the social distancing that will allow us to seat eight examinees plus a proctor;
- Provide a set of social distancing and mask rules for the examinees;
- Make sure that all students and the faculty proctor complete the Warrior Safe Training (the proctor should ask to see proof) and that they also complete Campus Daily Screener every day beginning two days before the exam and the day of the exam.

We will also have to set up rules about what to do if a student:
July 25, 2020

- shows up without having taken the screener and refuses to leave;
- calls up reporting ill the day of the exam;
- falls ill during the exam.

Multiply this by a million or so, and we have the logistical problems of reopening the K-12 schools, as well as our universities. It will be far worse in situations other than ours. Our graduate students are cooperative adults who have chosen to devote several years of their adult lives to graduate education. Move this model to elementary or high schools, or to undergraduate education. Are we prepared to schedule every in-person school activity this way? Are teachers to become the “screening police”? We have seen what happens at convenience stores or restaurants where clients are told to put on their masks. And the scenario described here is occurring at a university which is taking reopening very seriously.

YB does not have a solution for all of this. He does advocate a “stadium model” for entering the campus. When YB want to go to a Tigers game, he must go through a “turnstile” where his ticket is scanned. No ticket, no game. We can provide turnstiles and barcodes, and we must provide “ticket takers”. Once the students have shown their valid tickets, they can enter the appropriate locations. Faculty members have far more on their plates than to serve as screening police.

Let us turn to the CDC and Department of Education mandates to send children back go the schools. To paraphrase tennis “bad boy” John McEnroe, “They can’t be serious!” If they are, more’s the pity.

Allen C. Goodman
Professor of Economics
Forget the Great Recession

When your blogger started in March 2020, one of his first columns admonished readers not to think of the impending downturn as another “Great Recession.” He admonished the readers to think of major stimulus packages. In one he spoke of a stimulus of $1,000 per month.

The following diagram comes from the July 30 New York Times. It shows a downturn in GDP that is unprecedented in the United States, at least since World War II. The United States is not unique. Western Europe had a drop that was at least as large.

![GDP graph](https://static01.nyt.com/images/2020/07/30/us/gdp-2q-change-promo-1596113580367/gdp-2q-change-promo-1596113580367-threeByTwoMediumAt2X-v3.png?quality=75&auto=webp&disable=upscale)

The decrease in G.D.P. is by far the biggest on record.

Percentage change from previous quarter

This picture is a snapshot of something that happened a couple of months ago, and the third quarter may show an increase, because activities have reopened. It will almost certainly be trumpeted as a success, because we will have produced more than before. It will not be good, and 2020 will not be good... in fact it will be really bad.

YB has predicted that the economy would be slow to reopen – not because of recalcitrant governors, but because it is hard to reopen. Private businesses have not returned to full production, in part because they cannot control the coronavirus, and in part because the demand for their goods is not
there. YB has already (several times) talked about the reopening of schools. There is almost no federal guidance, and only a little more state guidance.

This morning YB read about an Indiana school district that reopened and already had their first positive test for COVID-19. Major League Baseball will almost certainly shut down in the next couple of weeks because they cannot deal with the logistics of running their business during a pandemic. Can you really believe that the Miami Marlins “voted” to play even though two-thirds of them were infected – and their owners let them do it – Derek Jeter really is impervious to criticism. No one knows what will happen with college football.

What is to be done?

1. Congress MUST continue the Paycheck Protection Act (protecting employers) and re-up the CARES act (protecting employees). Not only do these acts allow businesses to stay open, but they support aggregate demand.

2. Recognize the CARES act for what it is – a long overdue increase in the federal minimum wage.

3. Impose a carbon tax on toxic COVID-19 emissions. Private markets do not generally handle “non-point-source” (we don’t know where it came from) pollution. We cannot depend (right now) on the “profit maximizing” goals of business to determine the right amount of output.

4. Provide another $1,200 stimulus grant to households who need it. The targeting was roughly right before. Do it again!

5. Stop, or at least put a pause on, our trade wars. Our supply chain is seriously compromised, we are imposing additional costs, but reducing foreign input into our goods. Many economists point to the Smoot-Hawley tariff of 1930 as a prime contributor to the deepening and continuing of the Great Depression. Don’t do it again!

There is still time to get things right, if the adults in the room can start acting like adults. Otherwise, forget the Great Recession … think the Great Depression.

Allen C. Goodman
Professor of Economics
Despite the Uptick, Michigan Drops …

On August 3, the Detroit News ran a headline that said “Despite uptick, Michigan drops out of top 15 states for COVID-19 cases.” This very short article (by Craig Mauger) noted that recently, according to the Johns Hopkins database, Virginia, Ohio, Alabama and South Carolina had surpassed Michigan for total cases, according to the university’s tracking. Due in large part to the severity of early cases, Michigan still ranked ninth in total deaths with 6,212 deaths.

As this is published, with bated breath, clenched teeth, and fervent hopes [that the legislature doesn’t do something stupid] your blogger (YB) will note that the restrictive measures put in place by Gretchen Whitmer, Michigan’s governor, (also known as “that woman from Michigan”) seem to have flattened the curve. The semi-ugly graphic below, which for many reflects their forced recognition of a normal distribution (although it is not clear that it really is normal), shows that measures can work (the grey curve) … and they have.

Raising the line while flattening the curve

It is not clear why Michigan was smacked so hard at the beginning. Detroit Metropolitan Airport is a major port in the US – China air travel industry (YB has flown nonstop to China himself from Detroit), and the initial surge was probably travel and traveler-induced. No one saw it coming, and Michigan (particularly southeastern Michigan) was one of the epicenters along with New York and New Jersey (many feel that the surge in those places related to travel from Europe).

YB and his partner were in Florida when the pandemic struck, and we seriously considered staying there all summer. Place doesn’t seem to matter right now, and Florida (at least into early June) seemed to be OK. However, it
was getting really hot there, and we missed Detroit, so in early June we did a three day drive up I-75.

We’re glad we did because we all know what has happened since. Policy has failed in Florida. Florida now has (as of August 3) nearly half a million cases (over five times as many as Michigan), and over 7,000 deaths. Ray Charles (of blessed memory) could have seen this coming. People were flocking to restaurants, and to the beaches. Shoppers at Publix (a grocery chain) masked, but shoppers at other stores often did not. The gyms and the pools reopened. To date Governor Ron DeSantis has refused to issue a mask mandate. Well into the end of July, Governor DeSantis as insisting that all of the schools reopen for “in-person” classes, although he seems to have backed off from that stance as we have moved into August.

In Michigan, we are lucky (thus far) that the adults in the room have made the right decisions, and have been (largely) followed. Even the Republicans (who control the legislature) and some of the more reactionary news media have backed off. Michigan’s university presidents have been extraordinarily cautious about reopening, and Michigan State President Samuel Stanley sent the following letter to students this week:

“If you can live safely and study successfully at home, we encourage you to consider that option for the fall semester … Living away from campus may be the best choice for you and your family, particularly if you have family members at higher health risk.”

(source: https://www.lansingstatejournal.com/story/news/2020/08/03/msu-president-students-should-consider-studying-home-fall/5577478002/).

Flattening the curve is not rocket science, but it requires patience and self-control … and (thus far), it works.

Allen C. Goodman
Professor of Economics
Surprises in the Year of COVID-19

This is a health economics blog related to COVID-19. Your blogger (YB) has tried to apply health economics analysis to various events that have occurred. There has been a certain rueful self-congratulation relating to the ability to have predicted adverse events, such as the economic downturn, the problems with testing, and the problems with reopening. There have also been surprises. This entry looks at some of them.

1. YB is surprised at the reluctance of a fairly large part of the population to believe that public health measures work. YB grew up in the 1950s and 1960s where the tobacco industry insisted that there was NO link between cigarette smoking and cancer, and then watched one spokesperson after the next (it was equal opportunity for men and women) die of lung cancer. YB has seen a small but determined bunch of anti-vaxers insist that MMR vaccine has higher marginal costs than marginal benefits, and they won’t vaccinate, even (potentially) if there is an anti-COVID vaccine. The opposition of millions of Americans to common sense mask rules has been astounding, despite the overwhelming evidence that these rules work. This is not climate change, where the results occur “slowly”. This is real time, and thus far over 165,000 Americans have died.

2. That said, YB is surprised that where masking has been mandated and followed, it seems to have worked as well as it has. New York and New Jersey were COVID-19 wastelands in late March and April. Michigan, through strong leadership, and despite the callow opposition of the state Republican party and the Detroit News, has, for now, “gotten ahead” of the disease. It is again far too early to be self-congratulatory, but the evidence is there, and it is important. Contrast the New York / New Jersey story to Florida, Arizona, and Texas.

3. YB is surprised at the speed with which the American Congress and the Federal Reserve initially responded to the economic shutdown. Imagine a car engine that suddenly starts leaking oil. Without repair, and much more oil, the engine will seize up and the car will come to a sudden, eventful, and very costly halt. The Federal Reserve opened the cash spigots for liquidity for the American public. The Congress passed serious stimulus packages. Things were bad, but they could have been much worse.

4. That said, YB is surprised that as of the second week of August, Congress has balked at extending the stimulus (the Fed has been much better). It was clear that the recovery would be slow. Sending workers back to their jobs, when their jobs were unsafe, was not going to work … and it didn’t. Sending students back to face-to-face school is not going to work … just watch. College football is not working and Major League Baseball is barely working. Yet, to date Congress cannot agree on an additional stimulus.
5. YB is surprised at the breakdown of both the global and the internal supply chains. Part of the problem involves the seriously bad game of “chicken” that the Trump administration is playing with China. Chinese parts and goods are essential to lots of things that we produce and consumer in the United States. Impeding trade is tantamount to an enormous tax hike facing the United States.

6. Following up on Surprise 5, YB is surprised at the holes in the internal US supply chain. Yeast, napkins, YB’s favorite barbecue sauce, not to mention almost anything having to do with bleach. Masks are grotesquely expensive for what they are (pieces of paper), and the mask supply response has been slow and inadequate.

7. That said, demand for sweat suits has apparently increased. So, apparently, has the demand for bleach … and pianos. YB is surprised. Aggregate consumption has suffered mightily, but there are a few bright spots.

   Earlier in the year, YB threw his lot in with the “hockey stick” crowd, predicting a quick decline, and a very slow recovery. He has been right about that. Regrettably, this has been no surprise.

Allen C. Goodman
Professor of Economics
College Football?

Do you know the 2019 record of the MIT football team? Or the University of Chicago football team? Or for that matter, the Cambridge University football team or the Sorbonne football team? Didn’t think so. Does it matter?

Your blogger (YB) is a proud alumnus of The University of Michigan, and he roots for their sports teams. His two brothers went to Ohio State – enough said. Play college football this year? You have got to be kidding!

This is a health economics blog, so let’s put this in context. Just about every large Midwestern University has severely limited in-person presence for Fall 2020 because of the COVID-19 pandemic. The percentage of in-person classes started at about 20% and it is falling like an anchor. The economic externality that is COVID-19 will spread almost anywhere, and will infect students, and their instructors, and their instructors’ immediate families and grandparents. And they want to play college football … because the players and coaches want to?

Please explain this to the band members and would-be professional wind players who cannot meet because of the virus. Please explain these to the drama students who have been reduced to small plays and soliloquys. Please explain this to dance students whose programs have largely gone up in smoke.

Again, the economics. Suppose that the Michigan football team has come up with a self-financed testing program that guarantees that none of their student-athletes have COVID-19. Why are they not sharing that with the other 45,000 or so students? What do they do if they play another Big Ten school that does not have this program? And if all of the Big Ten teams have it, why are they not sharing it with students at their Universities?

President Mark Schlissel (U of M), Samuel Stanley (Michigan State), and Roy Wilson (Wayne State) are all physicians, and have experience with infectious diseases. They are the adults in the room, and it is time for them to make the adult decisions. Close down college football for 2020.

Once more, the economics. There are estimates that many large Universities will lose millions of dollars in television revenue if they do not play. The sports economics of college football are a topic for another column, and candidly, for another economist. But YB leaves you with the question … Do you know the 2019 record of the MIT football team? Or the University of Chicago football team? Or for that matter, the Cambridge University football team or the Sorbonne football team?

Allen C. Goodman
Professor of Economics
Deaths Above Normal

People die. In economic terms, their “health capital” has deteriorated to the point that it cannot sustain life. Think of your favorite old car that lasted 150,000 miles with some tender loving care, usual maintenance, and a little luck. You thought about getting a new one and the old one up and died. The car’s capital stock depreciated to the point that it either wouldn’t run or wasn’t worth fixing.

Estimated deaths above normal

<table>
<thead>
<tr>
<th>Region</th>
<th>Total Excess Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>South</td>
<td>57,000</td>
</tr>
<tr>
<td>West</td>
<td>29,000</td>
</tr>
<tr>
<td>Midwest</td>
<td>38,000</td>
</tr>
<tr>
<td>Northeast</td>
<td>95,000</td>
</tr>
</tbody>
</table>

Your blogger has written about the valuation of human life. A figure of $10 million is usually attributed to an entire life. Using this figure with the excess deaths gives a loss of $219 billion dollars since March 1. Billions of dollars are hard to imagine. YB has estimated the cost of building a new hospital at a billion dollars. We have lost the equivalent of 219 hospitals since March.

Looking at the graphic above, one can see that the largest losses occurred in the Northeast, particularly in New York and New Jersey. These
happened in April and May, and they happened because figuratively speaking a sudden COVID-19 hurricane hit. Since May, the largest number of “deaths above normal” have happened in the South. To continue the analogy, rather than being hit by a sudden storm, this is likely being getting warned to get off of a barrier island in advance of a hurricane, but staying put instead, and planning a “kegger” with 250 friends.

Texas Lieutenant Governor Dan Patrick offered to trade older people for younger people. In a discussion with Fox News host Tucker Carlson in late March, Patrick said:

“You know, Tucker, no one reached out to me and said, ‘As a senior citizen, are you willing to take a chance on your survival in exchange for keeping the America that all America loves for your children and grandchildren?’” Patrick said. “And if that’s the exchange, I’m all in.”

“That doesn’t make me noble or brave or anything like that,” he added. “I just think there are lots of grandparents out there in this country like me.”


Almost five months later, the US has settled into a death rate of over 1,000 per day due to COVID-19. Texas has had approximately 537,000 COVID-19 cases, and almost 10,000 deaths. Dan Patrick argued on July 1 that Texas “did ‘all the right things’ when it started reopening in May and that deaths – not confirmed cases – are the key metric.” Since then, Texas has had over 7,500 additional deaths.

Noble and brave? How about just plain stupid?

Allen C. Goodman
Professor of Economics
Somewhat Misleading Statistics – The COVID-19 Tax

In the late 1960s your blogger was introduced to the book *How to Lie with Statistics*, by Darrell Huff. This volume, written in 1954, and apparently never out of print, shows how even simple statistical analyses can be misused, misinterpreted, or, more ominously, manipulated to provide intentionally misleading inferences or predictions. YB has spent most of his career as an applied economic statistician, and reading the Huff volume early has led him to be circumspect in his use of analyses. YB has been referred to as “careful” or “thoughtful”, as well (on occasion) as “tiresome” or “pedantic”, but he has always been circumspect.

One Huff example he remembers is a deconstruction of a phrase that “quantity decreased by 20 percent from Month 1 to Month 2, and increased by 20 percent from Month 2 to Month 3, bringing it back to its initial level.” Huff points out that if quantity was 100 in Month 1, a 20 percent decrease would take it down to 80 in Month 2. A subsequent 20 percent increase would take it up to 96, NOT to 100. Indeed, a 25 percent increase would be necessary to take it back from 80 to 100. This is not rocket science, but it is a necessary correction to potentially sloppy analysis.

The August 15 New York Times presented a headline in the business section that could be reformatted as:

<table>
<thead>
<tr>
<th>Months</th>
<th>Monthly Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>February – March</td>
<td>8.3% decrease</td>
</tr>
<tr>
<td>March – April</td>
<td>14.7% decrease</td>
</tr>
<tr>
<td>April – May</td>
<td>18.2% increase</td>
</tr>
<tr>
<td>May – June</td>
<td>8.4% increase</td>
</tr>
<tr>
<td>June – July</td>
<td>1.2% increase</td>
</tr>
</tbody>
</table>

This looks like a big drop, but followed by an even bigger increase. However, recalculating the changes, assuming that the February retail sales were at the level of 1.000, gives:

<table>
<thead>
<tr>
<th>Month</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>February</td>
<td>1.000</td>
</tr>
<tr>
<td>March</td>
<td>0.917</td>
</tr>
<tr>
<td>April</td>
<td>0.782</td>
</tr>
<tr>
<td>May</td>
<td>0.924</td>
</tr>
<tr>
<td>June</td>
<td>1.002</td>
</tr>
<tr>
<td>July</td>
<td>1.014</td>
</tr>
</tbody>
</table>
For March, April, and May, retail sales were down by an average of 12.7 percent per month, and since February, they were down by an average of 7.2% per month.

How bad were March, April, and May?  Recall that for many people, rents for living spaces were suspended.  Had rents been collected, things might have been even worse for retail spending.  Although there was a bounce-back by June and July, it was to previous levels, not make-up spending.  Landlords will begin demanding rents soon.  This could have a big impact on retail spending.

COVID-19 has imposed a major demand shock on the macroeconomy.  It is likely to continue for a while.

1. People are uncertain and they want to save for precautionary reasons.
2. People will have to pay rent, and they will not increase their shopping.
3. Lots of people are still out work, and the federal government has not renewed the $600 per week unemployment benefit that put a floor under spending.

YB has written several times about COVID-19 tax as a tax.  This COVID-19 tax on consumption may continue for a while.

Allen C. Goodman
Professor of Economics

Reference
Huff, Darrell, How to Lie with Statistics, W. W. Norton & Company
Three Cheers for Michigan State

NPR.org ran the following story yesterday.

Two Midwestern universities announced on Tuesday that they will be modifying their fall plans because of the coronavirus pandemic. The University of Notre Dame is moving all undergraduate instruction online for two weeks, and Michigan State University is going fully remote for the semester.

“The virus is a formidable foe,” [Notre Dame President] Jenkins said. “For the past week, it has been winning. Let us as the Fighting Irish join together to contain it.”


If the reader will oblige, “you could see this one coming.” Notre Dame was one of the first universities to announce that they were going to reopen in the fall. In an earlier blog (Re-opening Universities) on April 27, YB questioned the plans of Brown University. In another blog (Race to the Top), YB took on Notre Dame, with an “imaginary” reopening plan. Notre Dame later announced a plan for reopening early, and closing by Thanksgiving, and apparently forbidding any parties, or allowing students ever to return home. They reopened, and it has not worked.

This is a health economics blog. COVID-19 is a form of air pollution – the more activity, the more pollution. The pollution increases with increased activity (students, crowding, parties, in short everything that happens in colleges). It decreases with prevention (masks, social distancing, cleanliness activities, and so on). Notre Dame discovered that its students had gone to (gasp!) parties. Michigan State’s discovery occurred earlier at a local watering hole, whose owners did everything they could to provide a safe space, but didn’t own the sidewalk, where everyone congregated. The COVID-19 air pollution kills people – thus far over 170,000 in the United States.

Why is Notre Dame doing this? Might one suggest … football? Notre Dame football is legendary, and brings in a lot of money. Notre Dame wants its football, and staying open suggests that athletes are students who play football. If students are on campus, then playing football is … OK. So far a lot of the students have come down with COVID-19.

Michigan State (and YB is a University of Michigan graduate) is more honest. They’re not playing football, and they are pretty much closing down their campus. Michigan State loves their football and its celebration, but it has not been participating in the hue and cry that followed the canceling of the Big Ten season. Coaches and athletes at Nebraska, Iowa, Ohio State, and yes, Michigan have been carrying on that they should play football because the athletes want to
play. It is safe for the athletes, they say. Tell that to the first tuba player who wants to play, but cannot. Tell that to the lab scientists who are locked out of their labs. Tell that to the dancers who can't perform.

There are lots of things in the US university system that are more important than football … lots and lots. This one hurts, but THREE CHEERS for MICHIGAN STATE.

Allen C. Goodman
Professor of Economics
Bad Incentives

Today we sent a student home from an exam. The student had informed us of possible exposure to COVID-19. The student was given a COVID-19 test four days previously, and there was still no reported result. The student was honest, having self-reported … but the student will have to retake the exam another time. Had the student lied (or simply not informed us), the student might have possibly infected another group of students and the exam proctor … or not.

Any set of university administrators that believes that they have appropriate protection plans for students returning to campus are fooling themselves. It is that simple. Your blogger’s university has made copious plans for testing, reporting, and contact tracing, but most of these plans depend on the inherent honesty, and good behavior of the various members of the college community. Suppose that the exam is pivotal to the student’s medical school or law school application. Suppose that the exam is pivotal to the student’s retaining his or her financial support. The student will want to take the exam. We economists urge students to compare marginal benefits to marginal costs, but we do not teach them enough about externalities (i.e. the virus) that raise the marginal costs. The incentives for individual decisions here are … bad.

In a July 21 article in The Atlantic, Professors Julia Marcus and Jessica Gold wrote, of the return to on-campus learning proposed by many universities:

Students will get infected, and universities will rebuke them for it; campuses will close, and students will be blamed for it [emphasis added]. Relying on the self-control of young adults, rather than deploying the public-health infrastructure needed to control a disease that spreads easily among people who live, eat, study, and socialize together, is not a safe reopening strategy—and yelling at students for their dangerous behavior won’t help either. [link]

Your blogger has been saying this for months. YB has advocated online learning. YB has suggested a “stadium model” of campus entry with limited entry points and bar-coded “tickets”. YB is tired of being a scold.

No one is happy with any of these proposals. No one wants to be scolded. Instead most universities have embraced a system of well-meaning but bad incentives … leading to dangerous outcomes.

Allen C. Goodman
Professor of Economics
Today is Friday, September 4, 2020. According to Worldometer, almost 192,000 US residents have died of COVID-19. With a death toll of about 1,000 per day, it is reasonable to expect that by Election Day, November 3, 2020, about a quarter of a million US residents will have died. This number is staggering and constitutes a permanent loss to the United States. We have calculated it several times in the last six months, but at an average cost of $5,000,000 per statistical life, it is a loss of almost one trillion dollars.

Your blogger’s home state of Michigan was smashed by COVID-19 in late March and early April. Fueled almost certainly by travelers into the Detroit Metro Airport from the Far East, the local economy was sent reeling, thousands were hospitalized, and thousands died. Democratic Governor Gretchen Whitmer, with little help from the state’s Republicans, instituted severe restrictions – to date the gyms and pools have not re-opened, but guess what? They have worked. Michigan is now 18th among the states in total cases, behind Texas, Florida, Arizona, and several other states that made points of only partially shutting down, or re-opening quickly. Social distancing works … and so do masks.

Governor Whitmer has endured constant political sniping (and in April some potential real sniping from occupiers of the State Capital in Lansing), but she maintains a high approval level. People in Michigan (for the most part) have been safe. Most of them understand why.

Not at Adrian College. David Jesse of the Detroit Free Press today (September 4) wrote that Adrian, a small private liberal arts college about 90 minutes southwest of Detroit reported 200 cases of COVID-19. There are currently 133 students in isolation on campus which is 5.9% of the total campus community. Yet Adrian plans to stay open. The answer apparently is sports. In an August 16 article, Free Press sports writer Jeff Seidel wrote:

“The biggest thing I tell my coaches is, ‘We have to learn how to live with this,’ ” [Adrian Athletic Director Michael] Duffy said. “It’s not going away. We learned to live with the Spanish Flu. If you look at pictures back from 1918, you’re gonna see people sitting in the stands with face masks on 6 feet apart. Well, guess what? That’s what we got to do today. It’s no different. And we survived that. And we’ll survive this. But we got to be smart.”


Today’s article quoted Adrian’s President Jeffrey Docking that Adrian plans to stay open, play sports, and apparently quarantine large portions of their students.
As we approach six months of blogging, YB has spent several blogs explaining how he was right, so it is circumspect and honest to own up to his mistakes.

Dr. Leana Wen was on television (MSNBC and other locations) early and often, stating that the US could easily face 200,000 deaths by the end of the year. YB felt that she was an inveterate scold. Leana Wen was right. *Mea culpa!*

Suzanne Nusbaum, a dear friend, spoke of the dangers of air travel to anywhere, as she reluctantly canceled trips to China and to Italy. You know where this is going. *Mea culpa!*

Michael Belzer, a Wayne State economics colleague, opined in April that we would be online for all of 2020-2021. *Mea culpa!*

The great economist John Maynard Keynes was once criticized for changing his mind on important issues. Keynes responded “when I get new information, I change my mind. What do you do?”

Allen C. Goodman
Professor of Economics
He Knew

So, there you have it. Donald Trump knew it was coming, and he knew it was going to be bad. Bob Woodward reports this in his forthcoming book, *Rage*.

This is a health economics blog. Early in 2020 Your Blogger provided a thought experiment kicked off by the question “If a 15 MPH speed limit could save 35,000 lives per year, why don’t we have a 15 MPH speed limit?” The economic answer is that the lives saved are not worth the cost in increased travel time and increased shipping time. Economists do this kind of analysis all the time. It makes us delightful party guests (remember parties?).

As YB writes this, the US has lost over 195,000 lives in about six months ([https://www.worldometers.info/coronavirus/country/us/](https://www.worldometers.info/coronavirus/country/us/)). Compared to the speed limit example, this is a loss of life of 390,000 people per year, or more than ten times the number of people dying in traffic accidents (which are probably down this year, because of decreased driving).

When hurricanes approach, we evacuate those in the way. We have methods of doing this that mitigate potential panic. Is it costly? Yes. Is it inconvenient? Yes. Does it save lives? Yes. Do some people refuse to evacuate? Also … yes.

There are people out there (Dan Patrick in Texas, Ron DeSantis in Florida, Doug Ducey in Arizona) who would undoubtedly answer that it was worth losing 390,000 lives per year because the cost of mitigation would be much higher than that. There are people out there who would look at the stock market and say that “the market is not bothered” by the losses.

These are all policy discussions that are worth having, but it requires that the adults in the room have them, and then explain them. The “Big Discussion” will occur on November 3. Maybe the American public feels about COVID-19 the way that they feel about the 15 MPH speed limit.

Just remember this. He knew.

Allen C. Goodman
Professor of Economics
The Empire Struck Back

This morning the Big Ten Presidents reversed an August 11 decision to postpone the Fall football season. From this morning’s *New York Times*:

In a statement on Wednesday morning, the league [Big Ten] said players, coaches, trainers and others who are on playing and practice fields would undergo daily testing for the virus, and that any player who tested positive would be barred from games for at least 21 days. ([https://www.nytimes.com/2020/09/16/world/covid-19-coronavirus.html](https://www.nytimes.com/2020/09/16/world/covid-19-coronavirus.html))

Other sources have noted that the availability of “quick testing” for athletes provides methods and information that were not available when the Conference made their initial decision not to play in Fall 2020. From the *Detroit Free Press*,

The COVID-19 testing will be for players, coaches, trainers and others who are on the field for practices and games. Test results must be completed and recorded prior to each practice or game. Players who test positive for the coronavirus through point-of-contact (POC) daily testing would require a polymerase chain reaction (PCR) test to confirm the result of the POC test, per the league. ([https://www.freep.com/story/sports/college/2020/09/16/big-ten-football-update-vote-2020/5814647002/](https://www.freep.com/story/sports/college/2020/09/16/big-ten-football-update-vote-2020/5814647002/)

This is a health economics blog. One economic question is what this COVID-19 testing will cost. A second economic question is what it would cost if it were given to all of the students on campus, including those who are currently locked up in quarantine? Will the tuba player in the marching band be given the polymerase chain reaction (PCR) test? Will the humanities scholar in the library stacks be included in this testing protocol?

Your blogger is an alumnus of The University of Michigan so he thinks in those terms. As noted above, if this protocol is good for The University of Michigan football team, is it being offered to all U of M students in Ann Arbor? or Flint? or Dearborn? Is it being offered to U of M faculty and staff? If not, why not?


<table>
<thead>
<tr>
<th>State</th>
<th>Number of Tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illinois</td>
<td>1,760</td>
</tr>
<tr>
<td>Iowa</td>
<td>1,616</td>
</tr>
<tr>
<td>Ohio State</td>
<td>1,528</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>1,097</td>
</tr>
<tr>
<td>Nebraska</td>
<td>504</td>
</tr>
<tr>
<td>Michigan</td>
<td>344</td>
</tr>
<tr>
<td>Purdue</td>
<td>322</td>
</tr>
<tr>
<td>Penn State</td>
<td>322</td>
</tr>
<tr>
<td>Maryland</td>
<td>287</td>
</tr>
<tr>
<td>Indiana</td>
<td>286</td>
</tr>
<tr>
<td>Michigan State</td>
<td>179</td>
</tr>
<tr>
<td>Minnesota</td>
<td>124</td>
</tr>
<tr>
<td>Rutgers</td>
<td>91</td>
</tr>
<tr>
<td>Northwestern</td>
<td>73</td>
</tr>
</tbody>
</table>
It is ironic that Iowa, Ohio State, and Nebraska, ranked #2, #3, and #5 in number of cases (college football loves rankings), led the public outcry for playing football.

The universities have brought students back to campus, only then to impose quarantines on them. These students are apparently not being given rapid testing. According to accounts too numerous to mention, at many universities (including U of M) they are being dumped into quarantine dorms, often without adequate supplies, supervision, or guidance.

We know why this is happening. In the 1960s many universities chose to allow their athletic departments to “sink or swim”. Largely cutting them loose to make their own deals led to the creation of athletic empires at Michigan, Ohio State, and many other Big Ten schools. Since then, fans have packed the football stadiums and the basketball arenas (no one pays much to watch swimming meets). In 2020, coaches get multimillion-dollar contracts and have large well-paid staffs. The economics are simple – make a lot of money and run your own empire.

According to Big Ten rules, the University Presidents make the decisions. On August 11, the Presidents tried to act like the adults in the room. On September 16, to borrow from Star Wars, “The Empire Struck Back”.

Allen C. Goodman
Professor of Economics
Two Hundred Thousand Deaths

As Fall 2020 begins today, the United States death toll from COVID-19 stands at over 200,000 – in six months. In six months over three times as many Americans have died from COVID-19 as died in the Vietnam war. The table below shows that the virus has offered close to “equal opportunity” death among the regions with the four largest states (California, Texas, Florida, and New York) leading the country, and growing Georgia jumping into the top five.

Coronavirus Cases and Deaths

<table>
<thead>
<tr>
<th>USA State</th>
<th>Total Cases</th>
<th>New Cases</th>
<th>Total Deaths</th>
<th>New Deaths</th>
<th>Total Recovered</th>
<th>Active Cases</th>
<th>Tot Cases/1M pop</th>
<th>Deaths/1M pop</th>
<th>Total Tests</th>
<th>Tests/1M pop</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA Total</td>
<td>7,051,048</td>
<td>4,383</td>
<td>204,706</td>
<td>200</td>
<td>4,301,469</td>
<td>2,544,873</td>
<td>21,302</td>
<td>618</td>
<td>98,964,491</td>
<td>298,984</td>
<td></td>
</tr>
<tr>
<td>California</td>
<td>790,679</td>
<td>15,071</td>
<td>399,311</td>
<td>376,297</td>
<td>20,011</td>
<td>13,672,782</td>
<td>381</td>
<td>13,672,782</td>
<td>346,039</td>
<td>39,512,223</td>
<td></td>
</tr>
<tr>
<td>Florida</td>
<td>685,439</td>
<td>13,324</td>
<td>218,784</td>
<td>453,331</td>
<td>31,914</td>
<td>5,120,391</td>
<td>620</td>
<td>5,120,391</td>
<td>238,405</td>
<td>21,477,737</td>
<td></td>
</tr>
<tr>
<td>New York</td>
<td>484,436</td>
<td>33,185</td>
<td>386,221</td>
<td>63,030</td>
<td>24,902</td>
<td>9,980,765</td>
<td>1,706</td>
<td>9,980,765</td>
<td>513,056</td>
<td>19,453,561</td>
<td></td>
</tr>
<tr>
<td>Georgia</td>
<td>307,339</td>
<td>6,604</td>
<td>74,037</td>
<td>226,698</td>
<td>28,947</td>
<td>3,066,767</td>
<td>622</td>
<td>3,066,767</td>
<td>288,843</td>
<td>10,617,423</td>
<td></td>
</tr>
</tbody>
</table>

Source: [https://www.worldometers.info/coronavirus/country/us/?fbclid=IwAR0j6ike5MgKK9eQGY1CeD0m9KZsUP2UjzGO4nBAhUEnyA-NVqiroKTQ0-Bs](https://www.worldometers.info/coronavirus/country/us/?fbclid=IwAR0j6ike5MgKK9eQGY1CeD0m9KZsUP2UjzGO4nBAhUEnyA-NVqiroKTQ0-Bs)

Your blogger (YB) has calculated the economic costs several times over the past six months, but valuing a life lost at $5,000,000 (a conservative number), the economic toll has been slightly over one trillion dollars in lives lost, alone. We have become used to losing 30,000 lives per month. At this rate, we will have lost 400,000 lives by the time we hit the one-year mark in March, 2021.

There is every reason to view this as an underestimate. Personal examples abound. Almost everyone knows someone who found it too difficult to get treatment for a non-COVID-19 condition, and died. Such deaths will not be recorded as COVID-related … but they are. Many may recover from COVID-19, but their organs may be scarred by COVID-19 and they may die sooner, more often, or more painfully than others. Such deaths will also be related to COVID-19. It is difficult to put a number on these kinds of deaths, but if they constitute even an additional 10 percent, this would account for 20,000 additional COVID-related deaths.

Can the US afford another lockdown to attack COVID-19? They are considering one in the United Kingdom. CNN reported:
British Health Minister Matt Hancock said Sunday that the country was "at a tipping point" following a new rise in cases on Saturday, when Britain registered 4,422 new cases, the highest number since early May.

"People must follow the rules and if they don't, we will bring in this much more stringent measures," Matt Hancock said in a BBC interview. When asked about re-imposing a second national lockdown, the minister said: "I don't rule it out. I don't want to see it."


Economists like YB like to talk about decision-making in terms of marginal benefits and marginal costs. If the marginal benefits exceed the marginal cost of an activity, one should do it. If not … not. We have reopened our economy from the March/April lockdown. We have more activity and more output … at the cost of 30,000 lives (over $150 billion) per month.

COVID-19 drives a hard bargain.

Allen C. Goodman
Professor of Economics
Believing Science

One of the hardest types of scientific examination is the “counter-factual.” Economists, most often denied the luxury of “double blind” experiments (where neither the subject, nor the intervenor knows whether the “real drug” is being administered), must ask “what if” questions. In 2020, the major discussion involves “what if” we had locked down earlier? “What if” he hadn’t opened up so soon? “What if” more people wore masks. All of these questions are counterfactuals. They are often fraught with confounding variables, so the answers are not certain. That does not mean, however, that they are not scientific or valid.

Your blogger’s home state of Michigan was smacked early and hard, most probably because of COVID-19 from air travelers from the Far East (Detroit is a Delta Airlines hub). Governor Whitmer, “that woman from Michigan”, imposed severe restrictions on the Michigan economy. After some number of months, it is clear that they succeeded. Michigan’s case numbers have fallen into the middle of the pack. Despite considerable flak from the Detroit News and the Republican party, the same Detroit News (https://www.detroitnews.com/story/news/politics/2020/09/09/michigan-voters-approve-gretchen-whitmer-handling-pandemic-poll-finds/5750849002/) reported that 61% of Michigan voters approved of Whitmer’s handling of the coronavirus outbreak compared with 36% who disapprove, according to the poll. Moreover, only 52% of the voters surveyed said they had a favorable impression of Whitmer.

How do we know that her restrictions worked? Look at some places in Michigan where they were lifted. In June, restaurant regulations were loosened and an outbreak traced to an East Lansing restaurant. In September Adrian College announced that 6% of its students and staff had tested positive for COVID-19, with more than 160 active cases on campus at one time. In South Bend, Indiana, no more than a mile or two from the Michigan state line, Notre Dame locked down the student population due to spikes in COVID-19, while continuing to play college football, to crowds limited to 20% of stadium capacity. As of today (September 25, 2020), Notre Dame’s dashboard (https://here.nd.edu/our-approach/dashboard/) shows a total of 725 positive cases. After being just behind New York and New Jersey in terms of number of cases and deaths, in April 2020, Michigan has no fallen way back into the pack. It is safe here. People are being careful. People wear masks and social distance … even in locations such as Macomb County that supported Donald Trump in 2016.

Some continue to disbelieve science. Within the past week:

- While the Israeli government has instituted a second country-wide lockdown, many Orthodox Jews (in Israel and in the United States) view the policy with indifference, if not hostility.
Florida Governor Ron DeSantis announced that restaurants can reopen to full capacity, although local officials may reduce capacity to 50%. If a county wants to restrict restaurant capacity between 50 and 100 percent, it must provide justification to the state. Mr. DeSantis also refused to mandate mask usage in the state, insisting that such a decision should be left up to local governments.

Arizona’s Governor Doug Ducey announced (on September 24) that he would not order businesses to re-close or impose new restrictions when the COVID-19 infection threat in any area returns to “substantial”.

“Arizona’s open,” the governor said. “Arizona’s economy is open, Arizona’s educational institutions are open, Arizona’s tourism institutions are open. The expectation is they are going to remain open.”

Let us look at Arizona’s educational institutions. In a dispatch dated September 25, Arizona State University (in Phoenix) reported that its COVID-19 case count has risen to 1,753 students and 31 faculty and staff. University of Arizona (Pima County, or Tucson) reported 2,245 identified COVID-19 cases since Aug. 4. With 35,516 tests performed, U of A had a positivity rate of 6.3%

Open, open, … open. Sic transit science.

Allen C. Goodman
Professor of Economics
The President is Infected

It is October 2, 2020. Six-plus months into the pandemic, over 7,500,000 cases, and over 213,000 deaths (https://www.worldometers.info/coronavirus/). This morning we learned that the President and several members of his staff have been infected. The numbers of those who they may have infected, over the last week, could plausibly be in the hundreds.

This is an economics blog, and your blogger is a teacher. Tests for disease merit some discussion. We depend on tests to determine infection rates and also the validity of the tests themselves. Suppose that we test 1,000 asymptomatic people for COVID-19. Suppose that 950 people do NOT have the disease, and 50 do. The “perfect test” will tell us this. It will find the “right” 50 people who have it (a “sensitivity” rate of 100%), and it will find the “right” 950 people who don’t (a “specificity” rate of 100%). In the perfect world, tests work perfectly.

Our world is not perfect. Policy experts worry most often that healthy people will be thought to be sick – these are called “false positives”. False positives can lead to unneeded treatment, which could be costly. In the case of COVID-19, it means that healthy people must quarantine for 14 days. It is inconvenient, and can be economically costly in terms of missed work, but it is not life-threatening.

Policy experts have traditionally worried less about “false negatives”, that is, people who ostensibly do not have the condition. Why? If they weren’t symptomatic to begin with, then the negative diagnosis will not change their behavior. They were going to keep working, playing, socializing, anyhow, and we are not keeping them from indulging in those activities.

However, we are discovering that some of the so-called “rapid tests” for COVID-19 may have false negative rates between 2% and 29% (equating to sensitivity of 71-98%, https://www.bmj.com/content/bmj/369/bmj.m1808.full.pdf). If so, going to the example above, our perfect test was not so perfect. Taking a false negative rate of 20% for the example above would mean that 10 of the 50 who thought they were “OK”, were NOT OK. They are sick, and they can infect others. It looks like a lot of people were infected this week. False negatives are very harmful when related to infectious diseases.

What makes this much worse, is that there was a group of people (the Trump party) who felt that the laws of epidemiology did not apply to them. Little masking and the continual gathering of big groups in close quarters put themselves, and those who they gathered with, at risk. Senator Mike Lee of Utah tested positive. University of Notre Dame President, the Rev. John I. Jenkins, positive for the coronavirus, just days after publicly apologizing for not wearing a mask or adhering to social distancing guidelines while at a White House
ceremony over the past weekend. Over the last several weeks, Notre Dame has publicly scolded its students for going out to parties … and getting infected.

At this past week’s debate, President Trump taunted Vice-President Biden this week for wearing a mask, and engaging in social distancing behavior. What portion of the 213,000 dead Americans could have been saved by appropriate preventive means? Why has the President refused to support these means?

The President is infected. YB joins all Americans in wishing him, and all other infected Americans, full, safe, and complete recoveries from infections that should not have happened.

Allen C. Goodman
Professor of Economics
Michigan’s Supreme Court for now has ended Governor Gretchen Whitmer’s emergency powers to address the COVID-19 pandemic. State Senator Mike Shirkey couldn’t be happier. *Bridge Magazine* writes:

Shirkey, who said he’s reached out to Whitmer to try and set up a meeting for next week, told *Bridge* he thinks it’s time to stop treating COVID-19 like a public health emergency …

Shirkey is encouraging the public to wear masks, socially distance and wash hands, but noted he doubts there’s “any appetite” among Republicans for a mandate.

“We’re moving now from an era or a time when the focus was on mandating, dictating and frankly in some cases threatening, to more of an informing and inspiring and encouraging and loving and trusting people to do the right thing” approach, he said. [https://www.bridgemi.com/michigan-government/gop-leader-no-mask-mandates-michigan-needs-learn-live-coronavirus](https://www.bridgemi.com/michigan-government/gop-leader-no-mask-mandates-michigan-needs-learn-live-coronavirus)

It is worthwhile to talk about regulations and mandates. In 1946, American consumers sought to make up for four years of war and a dozen previous years of the Great Depression, by buying new things. Automobiles had not been built from 1942 to 1945 because the war effort had transformed the auto industry into the “Arsenal of Democracy.”

Many of the new post-war cars came with seat belts. Car makers reasoned that a lot of the buyers had war-time experience, with airplanes, and the new technology would be attractive. Car buyers took razor blades and cut out the seat belts. So much for technology. Car makers stopped putting them in. Your blogger learned how to drive on a 1962 Rambler without seat belts.

Toward the end of the 1960s there was a movement toward the adoption of seatbelts. There was widespread opposition among buyers and even academics, even though it was crystal clear that seatbelts saved lives. Sam Peltzman, of the University of Chicago (1975) argued that because seatbelts made drivers feel safer, they would take more risks, leading to more crashes. In insurance terms, this is referred to as *moral hazard*, where the very creation of a contract or a law can lead to counter-intuitive behavior.

Suppose, for example, Harry buys home insurance that gives him “first dollar” coverage for theft. Harry knows that he should lock his front door, but the argument according to the moral hazard doctrine is that he won’t bother to do so, because the insurer will replace everything Harry lost. Essentially the policy has led Harry to take more risk. While intellectually elegant, the theory and/or theorist apparently never dealt with insurance adjustors. Although some early research supported Peltzman’s argument, most recent research shows otherwise. Adolph (2019) argues that “lessons on moral hazard should leave the example of seatbelts in the dustbin.”
So, what is next for Mike Shirkey? Abolishing DUI laws because the impinge on drivers’ freedom to party? Getting rid of speed limits so we can drive faster? After all, making drivers go 70 rather than 90 MPH may lead them to take more risk because they can’t kill as many people in a crash at 70 than at 90.

Do masks lead us to take more risks? Is this the problem? Removing mask mandates is like allowing factories to pour raw sewage into the rivers. Removing mask mandates is like removing scrubbers from smokestacks. Back in April, YB wrote a blog with a picture of the downtown Pittsburgh in the 1940s. The air was so dark that it stained buildings and ruined peoples’ lungs.

Later in the article Shirkey asserts:

Businesses “have no interest in putting their clients or their customers or their employees or their families at risk, and they’ll now have the ability to make those kinds of judgments,”

Really? Laws matter! We make restaurants handle food properly, and we make restaurant employees take tuberculosis tests so they don’t infect us. We make employers provide safe workplaces. Mandates matter!

This is an epidemic that has killed over 210,000 Americans, and over 7,000 Michiganders. Governor Whitmer’s mandates probably saved several thousand lives. The title of YB’s earlier blog was “What Is It About Epidemics that Business Leaders Don’t Understand?”

How about Republicans?

Allen C. Goodman
Professor of Economics

References

http://faculty.washington.edu/cadolph/409/seatbelts.pdf

The Failed Coup D'état in Michigan

Last week FBI and Michigan State authorities arrested thirteen men in a plot to kidnap Michigan Governor Gretchen Whitmer. According to the various reports, a confederation of discontented extremists had plotted in detail to “arrest”, kidnap, and then possibly “try” the Governor for a set of grievances largely related to her leadership during the current COVID-19 crisis. Fortunately, they failed, and if there is justice, they will spend serious time behind bars.

This is an economics blog, so where is the economics here? We elect officials to provide a wide range of governmental services, and there are decisions to be made. How many police, how many firefighters, how many teachers? How many parks, and how many highways, Fourth of July fireworks and parades, public health clinics. Leaders are elected to make these decisions. How do they decide how much?

There is a model called the “median voter model” that says that under a plausible set of conditions, the elected officials act as if they were making decisions of the “median” (or middle) voter. In 2018 Gretchen Whitmer was elected on a platform of “fix the damn roads.” She won election by almost 10 percentage points, or over 400,000 votes. Apparently, she did a better job of satisfying the median voter than her opponent.

Neither she nor anyone else could have foreseen the COVID-19 pandemic. Like many other Governors (and unlike some others), she took an activist viewpoint, and invoked emergency powers early and hard. After an initial blitz of COVID-19 in March and April, Michigan’s rates fell, and the number of new cases was also checked. In other blogs, YB has noted that Michigan has fallen to the middle of the pack in terms of illnesses and deaths. Governor Whitmer’s policies have been successful.

The public has largely been supportive. In a poll of 600 likely voters by the Glengariff Group, in September, 59% said they approved of Whitmer’s job performance. Another 38% of voters disapproved of the governor’s performance. The report noted that in January 2020, only 43% approved of the job Whitmer was doing and 36% disapproved (source: Detroit News, September 9, 2020). This looks like she was satisfying the median voter.

Some people went to court to strike down the emergency powers that were used, and the Michigan Supreme Court (on a party-line vote) agreed. President Trump tweeted to “Liberate Michigan”. Others collected petitions to “Unlock Michigan.” Senate leader Mike Shirkey, and House Speaker Lee Chatfield fanned the flames of the opposition with repeated rallies, and inflammatory rhetoric. Both Shirkey and Chatfield then professed shock that some “patriots” took them at their word to liberate Michigan by planning to kidnap and possibly kill the Governor. Chatfield then had the unbridled gall to chastise
Whitmer for not warning legislators (in the middle of an ongoing investigation) that they might be in danger. This is an odd reaction from a Speaker who did not seem to be bothered by armed individuals who “occupied” the State Capitol in Lansing in April. His response then was to recess the Legislature.

Again, this is an economics blog. When the elected officials do not satisfy the median voter, then they will be voted out and the policies will be changed. That is what civilized societies do. When voted out, they leave. That, again, is what civilized societies do. Civilized societies do not deputize militias to kidnap and try elected officials who are doing their jobs. Banana republics do that.

Michigan avoided a coup d’état last week, but we are the laughing stock of the nation.

Allen C. Goodman
Professor of Economics
The Great Barrington Mistake

On October 4, 2020, a bunch of “heavy hitters” in the public health world released the Great Barrington Declaration. After a couple of paragraphs of opening, they make the following statement:

The most compassionate approach that balances the risks and benefits of reaching herd immunity, is to allow those who are at minimal risk of death to live their lives normally to build up immunity to the virus through natural infection, while better protecting those who are at highest risk. We call this Focused Protection [emphasis added].

They continue:

Those who are not vulnerable should immediately be allowed to resume life as normal. Simple hygiene measures, such as hand washing and staying home when sick should be practiced by everyone to reduce the herd immunity threshold. Schools and universities should be open for in-person teaching. Extracurricular activities, such as sports, should be resumed … Arts, music, sport and other cultural activities should resume.

There is nothing about masking or social distancing in this Declaration. There is no assumption that we will have a vaccine any time soon. There is no mention of who will teach the children in the schools, and who will conduct the symphony orchestras that will again be playing in front of packed houses. The authors propose models of nursing home staffing that lead one to wonder if any of them has ever been in a nursing home.

“Herd immunity” will save us, say the authors. When enough people have become infected, there won’t be any more people to infect. Simple enough.

Your blogger has spent the last seven months writing about appropriate precautions and re-openings. As an economist, he is quite capable of comparing marginal benefits to marginal costs. He can write down the models and derive the optimal theoretical conditions. Shutting down the economy imposes big marginal costs. It is conceivable that at some levels they would exceed the marginal benefits.

Let us do some simple arithmetic. The generally accepted death toll from the 1918 Spanish flu in the United States was 675,000 out of a population of 103.2 million people, or slightly less than 2/3 of one percent. The Spanish flu ended with herd immunity. It is simplistic, to be sure, but extrapolating the Spanish flu death rate to the current US population of 330 million people would lead to 2.16 million deaths. We are at 220,000 deaths right now. Do the arithmetic.
YB often invokes the public health benefits of a national 15 MPH speed limit. We would save about 35,000 lives per year, because we don’t kill each other (often) in accidents at that speed. All advanced countries have rejected the 15 MPH limit because it is “too costly” in terms of time spent traveling.

To continue with that analogy, since March most countries have turned their speed limits from 75 MPH to 40 MPH, and policy-makers have made their countries “wear their seat belts” (through masks, social distancing, and contact tracing). Maybe 40 MPH isn’t the right speed, but neither is 75 MPH, on a slippery road in the middle of an ice storm. The signers speak fondly of herd immunity but the levels of herd immunity needed could come with hundreds of thousands of additional deaths.

It is notable that only one economist’s name appears on the list of prominent signers of this declaration. YB often notes that economists are terrible party guests, because they often kill a good argument by asking “what do you mean by that?”

They could have used a few more economists in this group.

Allen C. Goodman
Professor of Economics
The COVID-19 Tax: A View from Michigan

Your blogger drove down to work today. It was the first time since mid-December, and he didn’t go into the office, which he believes not to be safe. What he saw was a pall of economic activity. Seven months into the COVID-19 pandemic, the streets are half-full, if that. Stores and restaurants are (largely) empty. YB’s Wayne State campus was eerily quiet on a Monday afternoon. Ninety percent or more of the classes are on line.

Governor Whitmer has not turned Michigan into a “prison,” irrespective of what President Trump has said. COVID-19 has. The Michigan citizenry, largely-masked, even in Macomb County (which famously flipped for Trump in 2016), have been very careful. They are not dining out. They are not going to movies. They are not driving, even though the price of gasoline has fallen below $2.00 per gallon. Commerce is down.

In his first blog, YB characterized COVID-19 as a “massive tax”. Taxes fall hardest on those who cannot avoid them, and the measures needed to avoid COVID-19 involve masking, social distancing, and yes, refraining from commerce. This has happened in the places that shut down (New York, Michigan, New Jersey) … and in the places that didn’t (Iowa and the Dakotas). Many of the places that have re-opened are considering shutting down again. The virus is an equal opportunity tax. It falls on the White House and on our house.

The tax didn’t expire on Easter, or on Memorial Day, the Fourth of July, or Labor Day, however much we (and the President) wanted it. Big June weddings and graduation parties didn’t happen. March Madness was canceled and the College Football season has taken on an eerie (that word again!) silence. The Big Ten did the right thing (canceling the season), and followed it up by doing the wrong thing (“uncanceling” the season). People have stopped traveling, and have stopped planning to travel.

The tax has settled into a “steady state” of about 1,000 deaths per day throughout the US, with the current total topping 230,000. We call this mortality. The long-term illness issues (morbidity) are less visible, but very real, and potentially long term in nature (call these the “long run” tax effects).

The remedies? Wear the masks and social distance to mitigate some of the “tax impacts.” Learn to live with the higher prices due to the tax. Wait for the vaccine … sometime in 2021 or 2022, if we catch a break.

Allen C. Goodman
Professor of Economics
Hopeful News on a Vaccine

Yesterday the Pfizer Drug Company and partner BioNTech announced very hopeful news about the development of a vaccine against COVID-19. According to Statnews.com (https://www.statnews.com/2020/11/09/covid-19-vaccine-from-pfizer-and-biontech-is-strongly-effective-early-data-from-large-trial-indicate), early analysis of results showed that individuals who received two injections of the vaccine three weeks apart experienced more than 90% fewer cases of symptomatic Covid-19 than those who received a placebo. For months, researchers have cautioned that a vaccine that might only be 60% or 70% effective.

Food and Drug Administration (FDA) guidelines mandate that the companies not file for an emergency use authorization to distribute the vaccine until they reach another milestone that occurs when half of the patients in their study have been observed for any safety issues for at least two months following their second dose.

So where does that leave the world that is so desperately waiting? Estimates are that IF the vaccines work up to 50 million doses could be available globally. by the end of 2020, with 1.3 billion available in 2021. The world population is over 7 billion.

The logistics of distribution are daunting. The vaccines have to be kept at temperatures below -90F. Two shots must be given, two to three weeks apart. Although it appears that health care workers will be given the first priority, who will be next, and how will they be contacted, and treated? In the early 1960s (remembers Your Blogger), the population lined up at schools and churches (in warm weather) for “Sabin Oral Sundays”, to receive a dose of polio vaccine on a sugar cube. Distribution of this vaccine will be a major supply chain problem, and the US Army has been mobilized to address it. To repeat, the logistics are daunting.

In the meantime, we are having our highest daily case rates since the COVID-19 pandemic started. Almost 250,000 Americans have died from COVID-19 since March. On November 9, the New York Times (https://www.nytimes.com/live/2020/11/06/world/covid-19-coronavirus-updates) reported that more than 132,700 new cases were announced across the United States on November 6. The country also reported more than 1,000 deaths for the fourth straight day.

So … some very good news, on top of some very bad news. The economic costs (including the development of vaccines) have been enormous. We are hopeful … but it will take time.

Allen C. Goodman
Professor of Economics
Thanksgiving Day – Stopping COVID-19 Pollution

As we approach the Thanksgiving weekend for 2020, the US death toll from COVID-19 has reached 261,626 (https://www.worldometers.info/coronavirus/country/us/). The New York Times reported today that 1,947 people died yesterday, Friday, November 20. It is as if 6 full jumbo jets had crashed in one day, killing all of their passengers.

Valuing the loss at $5 million per lost life, we lost over $9.7 billion yesterday. Dr. Anthony Fauci was quoted in today’s New York Times (https://www.nytimes.com/2020/11/20/us/coronavirus-today.html):

“I think that December, January and early February are going to be terribly painful months”.

President Donald Trump has essentially lost interest in ongoing losses due to COVID-19, waiting with hope for a new vaccine that will end the pandemic. Without indulging in hyperbole, it is as if a military campaign accepts the losses of 2,000 troops per day because six to twelve months down the road there will be a new “Doomsday” weapon to vanquish the bad guys.

So … he won’t help us. What can the adults in the room do in the meantime to minimize the fearsome costs that COVID-19 is levying on us? YB has likened the costs of COVID-19 to the costs of pollution. Almost all economic activities pollute the environment to a lesser or greater degree. Economists have tools to address pollution.

1. Try to prevent it. Do not engage in polluting activities.
2. Keep it very local. This means that sick people should stay away from well people, and not travel, or congregate, and wear masks if we must travel or congregate. Even the most intransigent Republican Governors such as Kim Reynolds of Iowa or Doug Burgum of North Dakota have recognized this … as their states hemorrhage COVID-19 deaths due to their failure to do this earlier.
3. Impose a pollution tax. COVID-19 is a so-called effluent, that pollutes the environment. Rather than closing restaurants entirely, it might be appropriate to levy a 20% sales tax on “dining in.” Encourage the restaurants to pass the tax along to their consumers. Those consumers who feel they have a “right” to pollute should pay the price.
4. Identify pollution hot spots. Restaurants, bars, (yes) houses of worship, and communal events spread this pollution. Would-be consumers should know which of these places are safe and which are not.

The reduced economic activity due to these measures will cost jobs. Reducing pollution almost always does. There are no short-term “Green New
Deal" air cleaners that will help us through this next six- to twelve-month period. The federal government is working on a vaccine (the Doomsday weapon) that, when distributed, will help render COVID-19 harmless. This is the 2020 "Manhattan Project." Only the federal government has the resources to implement a project of this size.

Meanwhile, because he won’t help us, we must help ourselves. Less travel, smaller dinners, and watch a lot of football … this Thanksgiving.

Allen C. Goodman
Professor of Economics
COVID-19 Pollution and Growth

Your blogger grew up in Cleveland in the 1950s, and in 1969 the Cuyahoga River caught fire and caused damage to a railroad bridge. It apparently wasn’t the first time (https://www.smithsonianmag.com/history/cuyahoga-river-caught-fire-least-dozen-times-no-one-cared-until-1969-180972444/). The river was so polluted with industrial waste (largely from the steel industry) that there were no fish in there (except during steel strikes). Kids growing up in Cleveland couldn’t swim in nearby Lake Erie. We were told that this was the price that we paid for Cleveland’s being an industrial leader. Cleaning up the river would cost jobs.

Fifty-plus years later, the river is better, although not great. The Smithsonian story speaks to “river kayaking, fishing and cruising on stand-up paddle boards.” This would be unrecognizable to anyone growing up in mid-Twentieth Century Cleveland.

Well into the ninth month of the COVID-19 pandemic in the US, the country is still debating the “pollution effects” of COVID-19. President Trump argues that he cannot “shut down” the country again, and he has apparently come to terms with thirty to forty thousand deaths per month until a vaccine takes hold. President-elect Biden argues that we can fight the disease and keep the economy moving. Can we do that?

The answer, as in many of the economics questions that YB asks, is “well, it depends.” COVID-19 has imposed an enormous pollution tax on the United States, and on the world. Those who are hit hardest by a tax are those who have the most trouble adjusting. Amazon, Netflix, Google, and Facebook have done just fine. Electrons are not impacted by the COVID-19 virus. Your local restaurants, movie theaters, health clubs, concert venues, and sports stadiums have been smacked, and will continue to be smacked until a vaccine arrives. The same goes for Universities. Vibrant central cities that have staked their recoveries on entertainment districts will be in tough shape at least into 2022, and maybe longer. Virtual conventions do not employ carpenters and electricians, and virtual consumers do not patronize local restaurants.

Just like the Cuyahoga River fifty years later, the Economy of 2021 will not look like the Economy of 2019. We will be wearing face masks, and we will not be entertaining out. The carnage in the shopping mall sector (which was approaching even in 2019) will continue. Landlords in all sectors have lost billions of dollars in market-determined rents. We can fight the disease and keep the economy moving. Remember, however, that the COVID-19 pollution tax will continue to cost jobs and growth.

Economics is like that.

Allen C. Goodman
Professor of Economics
The Moon and the Ghetto – After 50 Years

In the early 1970s, commentators asked why we could put a man on the moon, but we could not fix the problems in the city ghettos. The answer was there for the taking. We knew where the moon was, and would be, and we could calculate trajectories to get there. The physics, propulsion, and computing problems were daunting, but there was a single point to reach … and we reached it. Those of us who watched the landing on our black and white TVs will never forget it.

The ghetto, in contrast, contained lots of people, with lots of wants and needs. Prioritizing the needs involved achieving consensus. Understandably, ghetto residents wanted to have say in what was done. The late 1960s race to the moon was accompanied by unprecedented insurrection in many American cities, where opportunities lagged, and government programs were not addressing the needs of the citizens. “Black Lives Matter” for example has shown that fifty-plus years later many of these needs have still not been addressed.

Your blogger believes that there is a similar narrative occurring with creating and distributing the COVID-19 vaccine. According to all accounts, Big (and Little) Pharma are creating vaccines at unprecedented speed. With hope, vaccines will be ready within a year of the “start” of the disease. This has never been done before. YB is a bit less sanguine than others about how well the vaccines will work, and how we will know whether they work, but the technological speed is incredible. We will need them because by the end of December, over 300,000 Americans will have died of COVID-19. This is the “moon” part of the analogy.

The “ghetto” part involves getting the vaccines out in an orderly and efficient way, and making sure that enough people get them. 330 million Americans equal 660 million doses, administered at the correct intervals, all over the country. We will depend on a queuing system of unknown form and unknown quality. We will not be selling the vaccine in stores. Those administering the vaccine cannot put the vaccines on sugar cubes, and provide them in 75-degree offices. The Pfizer vaccine must be stored at temperatures of -94 degrees, colder than Antarctica.

Further, we must depend on patience from a population that cannot patiently keep out of restaurants, casinos, or holiday parties. Distribution will be complicated and will require careful plans. Given the current political climate, those plans will almost certainly not be available until after January 20, 2021.
So … kudos to the vaccine developers. We fervently hope that they will “shoot the moon” and there will be numerous effective vaccines available by early 2021. Distribution may be a much more difficult problem. Society is complicated and societal needs are many-faceted. The distribution chain will be complex, and the need for health professionals profound.

In the larger scheme, it may be harder to distribute the vaccine than it was to create it. Aiming at a single point may turn out to have been easier than distributing over 330 million (or over 7 billion world-wide) points.

Allen C. Goodman
Professor of Economics
College – End of Fall Term 2020

Your blogger is a proud alumnus of The University of Michigan. His education at U of M opened doors through his life. “The Leaders and Best …” goes *The Victors*, the school fight song. What the hell happened to U of M this Fall, and YB is not talking about the football team (that’s another blog posting)?

Given a chance to do some real leadership in the academic world, President Mark Schlissel and his leadership team fumbled, stumbled, muffed, and dug themselves into a hole from which it could take years to emerge. Given the opportunity to put together a first-class effort in running a University under the cloud of COVID-19, The University of Michigan became a second-class s**t-show. So did its rival Michigan State.

The *New York Times* (December 12) reported that Ingham County, the home of Michigan State

“… went from having about 300 new infections in August to about 1,800 in September. On Sept. 14, health officials said a majority of the newest cases involved students at Michigan State and ordered people in many fraternities and sororities to quarantine. Virus deaths have more than tripled in the county since the end of August, to 141 from 41.”

Both Michigan and Michigan State sent most of their students home and they will be almost entirely online for Winter 2021. Finally, they did the right thing.

This is a health economics blog. Michigan and Michigan State both have Physician-Presidents. Surely Presidents Schlissel and Stanley understood infectious diseases and the external effects that they have on others. Surely Presidents Schlissel and Stanley understood how 18 to 22-year-old students act in social and group situations, interacting with and infecting others. Although they are both “state institutions”, both (especially Michigan) have healthy endowments that could cushion financial shock.

Was it hubris? Did these institutions think that they could undo science? Neither had the kind of testing and tracing programs that could have cut down the spread of the virus?

Was it sports? The Big Ten made the right decision (canceling) and then made the wrong decision (re-starting). They stood to lose a lot of money by not playing. They lost a lot more respect by trying to play and having whole teams infected, games canceled, and reputations shot. All so Ohio State could play for a national championship.
December 14, 2020

The Ivy League canceled their whole fall and winter seasons, and is “postponing” spring sports until at least the end of February 2021. The Michigan schools love to compete with the Ivy League as scholars, and they compete well in many fields. They have fallen woefully short, in judgment with respect to COVID-19.

Universities in the United States will come back after the New Year’s break for the Winter (or “Spring” in some places) term. Maybe they will do a better job this time.

Allen C. Goodman
Professor of Economics
How to Allocate the Vaccine

The COVID-19 vaccine was rolled out in various locations this past week. Developed in record time, it stands as a testimonial to our ability to focus on a well-defined goal. It seems to work well. The side effects seem to be mild. We commend scientists of the pharmaceutical industry for this feat.

What can economists offer about how to allocate this new vaccine? The answer is at once simplistic and yet so very complicated. Economic theory suggests that we try to maximize the difference between the incremental (or marginal) benefits and the incremental (or marginal) costs. This algorithm suggests that we allocate it first to health care workers and workers in essential and critical industries. They must take care of the rest of us … and they are easy to find. High marginal benefits, and low (we just take the vaccines to the health care settings) marginal costs. The workers will be at work tomorrow. They will be there three (or four, depending on which vaccine they are getting) weeks from now for the second dose. This one is easy.

Nursing home residents are apparently next. They are older and they have other illnesses, called co-morbidities by the professionals. Again, we know (largely) where they are. We don’t know how well they will react if they are sick with another condition. Some nursing home residents have dementia problems. Will they have to be convinced, and can they be appropriately “consented” to take the vaccine?

Who next? We have picked the “low hanging fruit” already, in going to the places where those who need the vaccine either work or live. Now it gets much trickier because the beneficiaries are harder to define, and the locations are more diffuse. Your blogger (as is his partner) is 73 years old so he is (apparently) not in the highest risk elderly category (75 and over). The vaccines will be available at CVS and Walgreen pharmacies. In the Royal Oak neighborhood where YB shops, they are across the street from each other (as they are, seemingly, in many areas of Southeast Michigan). YB patronizes the Walgreen’s – will that make a difference? Will CVS serve him?

How will he be notified as to where to go? How will they screen him? Will he be given an appointment, or will he wait in line? How will they follow up with him for the second dose and what if he doesn’t come in for the second dose? This is not like the sugar cube Sabin vaccines that were given at Fairfax School (Cleveland Heights, Ohio) in the early 1960s, where we stood in line on a summer’s day.

What kind of verification will YB get to assure others that he has been vaccinated? A gold certificate suitable for framing? YB has argued several times this past year for a card with a chip that could be scanned by those who care about whether he has had the vaccine. To get into a restaurant, stadium, or
office building, we would scan the card. Are they ready to issue this kind of card? Will we have the machinery to read them? If not, how will we be sure?

To this point, we have discussed those who are willing to get the vaccine. Tens of millions of Americans are apparently not yet willing. Getting them vaccinated will incur even higher marginal costs, yet provide relatively high marginal benefits (from herd immunity). Here we move to two tools, the proverbial carrots and sticks.

The carrot – Pay them with gift cards of $10 or $25.
The stick – Employers are authorized to mandate vaccines. No vaccine, no work.

We must be prepared to use either, or both.

Most observers believe that it will take well into 2021 to achieve the appropriate vaccination levels to prevent the further spread of COVID-19. It may take much longer for vaccine recipients and the general public to start traveling, entertaining, or doing their normal lives again. YB and his partner have been invited to two weddings in the Western US at the end of Summer 2021. When or will they be able to plan to go?

So, blogger, you’re an economist. Why aren’t you advocating competitive markets? First, the externalities (incremental benefits far exceeding incremental costs) argue that the markets would provide an inadequate (not enough) amount of vaccinated people. Second, the markets do not address a myriad of equity-related issues. Health care workers may not have enough money to bid away vaccines from richer, less essential workers. Third, the provision of vaccines is anything but competitive. We have a very few suppliers, with precious licenses granted by the FDA. Markets, here, won’t do it.

The roll-out thus far has been small, and not without problems (much smaller amounts than expected). Well under half a million Americans have received the first vaccine, and it is expected that over 200 million full vaccinations are required to get to herd immunity. We have a long way to go.

Allen C. Goodman
Professor of Economics
Capital Losses and a Domestic Marshall Plan

It is Christmas Day, 2020, and as of today, 337,842 Americans have died of COVID-19 (Source: World-Meter). Over the past week approximately 18,000 died. We have lost the equivalent of six World Trade Center bombings in the past seven days.

While it is essential to address the current pain and suffering, it is equally important to look at the enormous “capital losses” that we have incurred over the past nine months. Capital losses? How can you say that when the stock market has reached new highs in the past calendar quarter?

Your blogger is concentrating here on the loss of productive capital. In our economics principles courses, we talk about the distinction between consumption and capital. Consumption means consuming goods and services now, for personal pleasure. Eating, drinking, going to the movies (remember that?) all constitute present consumption. Investing in education, health, buildings, highways, and the like do not necessarily bring current bliss, but provide for production in the future. We have seen staggering destruction of the stocks of such capital goods in the past nine months.

*Loss of life* – Valued at (a conservative) $5 million per person, we have lost nearly $1.7 trillion dollars in productive capital.

*Loss of education* – In 2019, there were approximately 57 million students attending elementary and secondary schools (https://educationdata.org/k12-enrollment-statistics). The period from March 2020 until Fall 2021 will be remembered for enormous education displacement from the shift in teaching methods. One could easily argue that each of those students has lost at least one-half year of learning. Some (particularly those in early years) will probably catch up. A very large number will not. Students in athletics and in the arts may never catch up, as others behind them will take their places.

*Buildings* – Thousands if not millions of buildings have experienced accelerated depreciation, or advanced obsolescence. The physical capital retail sector (malls and many urban shopping areas) was already reeling from online competition.

The office sector will have to be reimagined from top to bottom. Crowded cubicles, obsolete ventilation systems, uncomfortably close stairways, elevators, comfort facilities and common areas will all have to be changed, at the costs of billions of dollars. School classrooms will also have to change, for similar reasons.
Capital stock relating to certain consumer sectors have also been savaged. The restaurant and entertainment industries have experienced massive drops in demand. Large numbers of movie theaters are permanently dark. These may not be permanent, but they will almost certainly be long-lasting.

There are, of course, some offsets. Amazon is growing like gangbusters. They have increased investment in warehouses, delivery vehicles, and the like. With two to three-year lead time on many of these investments, however, many of the adjustments will be slow.

Similarly, downtown offices are being replaced, in part, by home offices. People who are now working from home, need more room, more furniture, better Wi-Fi and the like.

YB has written of COVID-19 being like a tax, but in a November 17 note, long-time friend Larry Siegel wrote “I see it more like a war, except that there is no upside, no spoils of war.” A good, and scary, analogy.

Following the end of World War II, with the European economies in shambles, the United States engaged in the Marshall Plan, to help with the rebuilding. We poured billions of dollars into the economies of our victorious Allies, and the economies of our vanquished enemies. The incoming Biden Administration may want to consider a domestic Marshall Plan to address our capital destruction. The economics suggest that it would be worth it.

Allen C. Goodman
Professor of Economics
January 1, 2021

The Economy in the New Year

It is January 1, 2021. To date, 355,361 Americans have died of COVID-19 (https://www.worldometers.info/coronavirus/country/us/). With a few days left in December, according to the University of Minnesota, over 65,000 Americans had died in December. Several vaccines are now available. Although the “roll-out” has been slow, observers hope for large scale immunization to occur sometime within the next six to twelve months.

Your blogger’s partner has asked him what the economy will look like for 2021. Will things “snap back” to the heady growth that we enjoyed through most of the last decade?

Paul Krugman thinks “yes”. In a New York Times column this morning, he writes that he expects “rapid growth once people feel safe going out and spending money.” He thinks that will be soon. He is also optimistic about the job-creating capabilities of new technologies, which he likens to the surge in information technology in the early 1990s, leading to the productivity surge from 1995 to 2005.

Certainly there is a lot of savings waiting to be spent, so the potential demand is there. However, there is major uncertainty about the economy’s ability to absorb the spending. For example, many businesses have told their employees to continue working at home through June 2021. No major spending increases there.

Travel budgets and plans will almost certainly be on hold through 2021. YB has been invited to two weddings in the western United States in August/September 2021. If they occur, they will almost certainly be smaller, with fewer guests. YB and his partner have made hotel reservations (fully refundable), but no air travel plans.

Conventions and pleasure travel will also be curtailed. International travel will recover only slowly. Detroit residents used to go across to Windsor Canada for Chinese dinners. The fastest way to drive from Detroit to Boston is through Canada. Vacation plans for Canada, Europe, or anywhere across an ocean, will be very slow in 2021.

Moreover, although face-to-face contact remains essential for many activities, many have discovered that it is much less essential than we once thought. The Economics Association meetings used to function as a major labor market event, where eager graduate students met eager employers. The shift to Skype/Zoom had already started in the past couple of years before it hit the profession like a two-by-four “upside the head” this past year. For this next year’s meetings, even with a vaccinated population, there will still be demand to participate “from home”; this next year, and perhaps indefinitely.
The term “almost certainly” jumps out at us. How safe are restaurants and bowling alleys? How do customers feel about being served by wait staff in masks and rubber gloves? How safe are large weddings? Will Jewish couples and their celebrants be able to “dance the hora” at their weddings? Probably some day, but *almost certainly* not in 2021.

*Almost certainly* there will be hiccups. Schools will reopen in the fall, and have to close down because of COVID-19 outbreaks. Office and retail facilities previously considered “safe” will have to be refitted at the costs of billions of dollars. Sports teams may be allowed bigger crowds, until new outbreaks occur.

The year 2021 will be a year of adjustment. It will be better than 2020, but a major resumption of pre-pandemic spending activities will *almost certainly* wait until 2022 and beyond.

Allen C. Goodman
Professor of Economics
The Vaccination Mess – and a Proposed Solution

We are about four weeks into the introduction of the COVID-19 vaccine, and no serious analyst can give the roll-out a passing grade. The litany of complaints is several:

1. The wrong people are getting the vaccine.
2. The right people are not getting the vaccine.
3. More of the vaccine is sitting unused than is being used.

Meanwhile, the number of COVID-19 deaths has settled in at about 3,000 per day, and by Inauguration Day (January 20, 2021) over 400,000 Americans will have died of COVID-19 in less than one year. This is over ten times the annual number who died in traffic accidents before the pandemic began.

This failed roll-out is largely due to the reluctance of the federal government to act “federally”. In an earlier blog (April 2, 2020), your blogger (YB) wrote the following about the bombing of Pearl Harbor:

Scholars of World War II agree that the United States was woefully underprepared for its start on December 7, 1941. We had only recently instituted a draft, and we did not have the war-time materiel ready. The war was a national war; President Roosevelt didn't tell the authorities in Hawaii, California, Oregon, and Washington (who feared of being bombed) to “figure out a way” to fight the Japanese. There was a full federal mobilization ...

How did it the vaccine roll-out get this bad? Here are a few bullets.

- YB receives treatment at a local clinic three times per week. He asked the nursing staff whether they had been vaccinated. By their reports, the vaccine assignments have seemed almost random.
- YB was sent emails by two different medical groups. Because of his age, he qualifies for priority placement in the vaccination, and he was told that he should check the web site, and would be contacted by email. The next day, the web site for one of them crashed due to the flood of inquiries, and several days later, there has still been no notification.
- YB’s employer indicated that vaccines would be available, but the employer does not know when, and the employer has not really established priorities, other than for medical personnel.

In short, millions of people want the vaccine, and they have no idea when and where they can expect to get it.

Prioritization has been defined at the state level, and the states have largely failed the test. In some places, like Florida, they have further delegated
January 10, 2021

distribution to the counties – there are over 3000 counties in the United States. Moreover, state finances to administer and distribute vaccines are a mess. Many states were able to tap so-called “rainy day” funds for whatever fiscal year encompassed the last nine months of 2020, but they are largely tapped out financially by now. There is no plan in place to mobilize the resources necessary to vaccinate ten million people in Michigan, let alone 330 million people around the country.

This is the time for a federal response.

1. Find out from the states who the medical personnel are, and send the vaccines to their employers, with a mandate that they be vaccinated.

2. Prioritize the rest of the potential vaccine recipients by Social Security number. Social Security numbers are birthdate stamped. Moreover, most everyone currently collecting Social Security or receiving Medicare benefits would, by definition, be in a high priority group, and the federal government (because it mails checks to them) knows where they are. Put these numbers in a fishbowl and fish them out lottery-style as vaccine becomes available.

3. Send vouchers to the lottery winners and invite them to come to central locations located in stadiums, shopping malls, and other places with large parking lots, at specified times.

4. Give them a federally-issued Vaccine Identification Card (call it a VIC), so they are easily recognized. The VIC will be initially activated, and fully activated according to the timeline for second vaccinations. This would be the first step to a national health identification card, which YB has proposed several times in the past year.

This is an emergency. It is time to recognize the emergency nature and to act accordingly.

Allen C. Goodman
Professor of Economics
A COVID-19 Report Card

This is the blog #70 since the site opened on March 16, 2020 in response to the explosion of the COVID-19 pandemic. As of today, 410,720 Americans have died from the pandemic (https://www.worldometers.info/coronavirus/country/us/). Occasions such as the quadrennial Presidential inauguration (tomorrow) serve as suitable times for "report cards". How have we in the United States fared?

Deaths – F. By any measure this has been a failure. The deaths of 400,000 Americans are tantamount to wiping a major city such as Oakland, California, Tulsa, Oklahoma, or Tampa, Florida off the map. By valuation of life, using a conservative estimate of 5 million per person, this constitutes a loss of $2 trillion dollars. A hospital costs about 1 billion dollars to build. We have seen the human capital equivalent of 2,000 hospitals (more than one-third of the current total) destroyed.

Loss of Economic Output – C. The United States has held its own. Comparative international numbers are hard, and slow, to come by, but in one estimate (https://ourworldindata.org/covid-health-economy) the US second quarter 2020 output was about 9.5 percent lower than 2019, comparable to The Netherlands, Latvia, and Japan. Finland was about 5 percent lower, Canada about 13.5 percent lower, and the United Kingdom, over 20 percent lower. All of the economies snapped back toward the end of 2020, but the recoveries have been mixed, and certain service-, travel-, and entertainment-related sectors will see major losses well into 2021, and possibly beyond.

Attitude – D. In the face of a national trauma, it is surprising that there was not a singleness of response. Your blogger has noted that when Pearl Harbor was bombed, President Roosevelt did not tell the leaders of Hawaii, California, Oregon, and Washington, “well, you’re on your own.” Irrespective of one's personal opinion of outgoing President Trump, the lack of federal leadership in doing what only federal leadership can do, was striking. Local leadership from a group including the Governors of Michigan, New York, New Jersey, and (yes, on occasion) Texas and Arizona was often courageous (and sometimes dangerous), but it could not make up for federal purpose.

Developing Vaccine – A. When there is a single purpose, there can be extraordinary progress. YB was skeptical of the ability to develop a vaccine within a year or even two. The development of multiple vaccines, some better than others, is a testimony to the underlying science, and to the hard work of those using it.

Distributing Vaccine – F. Using the analogy of “the moon and the ghetto” YB predicted (in early December) the logistical problems of distributing it. In economic terms it represents the difference between treating pollution that emanates from one source, and treating pollution from 330 million sources. This
January 19, 2021

was never going to be easy, but as of today (over a month into the distribution) over 30 million doses have been produced, and only 11 million have been used. The gap is staggering.

We enter a new “schoolyear” tomorrow. Some of the problems, such as attitude, will change quickly. Others (deaths, distribution) could take a good deal longer.

Allen C. Goodman
Professor of Economics
The Federalized Vaccine

The appropriate mix of localized and more federalized public goods outputs has long been a topic of economic inquiry. To the extent that the preferences and technologies are local (local government, local schools, police and fire protection), financing and decision-making should be at the community, county (local district) or state level. To the extent that the preferences and technologies are national (war-making, defense, space exploration), the financing and decision-making should be done at the national level.

Today’s blog will use this framework to evaluate the COVID-19 vaccine development, and the roll-out. Both of them fill the bill for national public goods. Yet, the first stands out as a public good success. The second, to date, has been found wanting.

First, a little economic history. Your blogger remembers being piled into the family Plymouth in the 1950s on trips between Cleveland and Chicago. The family would take US Routes 20 and 6 through Sandusky, Toledo, Elkhart, South Bend, and Gary on a trip that seemed to take about 12 hours (it was probably only about eight). It was slow, and it went through major cities, because that is where roads went.

After a few years’ hiatus, we took the trip again. The new Ohio Turnpike and Indiana Toll Road had shaved two hours off of the trip, bypassing all of the previous fun spots on the way. These roads were part of the Interstate Highway System that provided a 90 (federal):10 (state) match to build new highways. The act was originally related to defense readiness (if the Soviets invaded New Jersey, they could sabotage the 7 tunnels of the Pennsylvania Turnpike and keep our soldiers from responding quickly – hence the construction of tunnel-free I-80). Economic analysis (Fernald, 1999) has suggested, however, that the massive road-building of the 1950s and 1960s offered a one-time boost to the [unprecedented] post-World War II growth in productivity through the early 1970s. Public investment brings returns!

The development of the COVID-19 vaccine with Operation Warp Speed has certainly been a major economic achievement. Although the underlying technology had been developed for the SARS and the MERS viruses, its speedy deployment, and apparent success were not universally anticipated (YB did not expect it so soon). This was a federal program – it had to be so. The resulting product is effective.

Yet, the deployment of the vaccine has been a disaster. Deployment was relegated to the states (51, including DC), and from there often to the counties (over 3,000). It was like requiring the states and the counties to coordinate the planning and building of the Interstate Highway system, having to marshal the resources, and coordinate the plans. The Eventbrite event management and
ticketing website has been used in Florida. Eventbrite was not designed for this, and it has not been wildly successful, but compared with the roll-out in Michigan, it has gotten the vaccines into some of the right people in the right places. YB and his partner are both in their early 70s – neither has any idea of when or where he/she will get the vaccine. Both have received emails announcing that vaccines would be available, but “don’t call us – we’ll call you”. There appears to be no identification mechanism, nor particular scheduling algorithm.

For years the US had the Selective Service System, which coordinated the draft. No one who went through it remembers SSS fondly, but SSS knew where you were, and they knew how to find you. Several of YB’s classmates left college in the late 1960s and found themselves in the Army only months later. That was fifty years ago – these things can be done.

It is becoming clear that having promoted the vaccine development the Trump Administration did not care about distribution. Meanwhile about 100,000 people have died from COVID-19 in the past month, and probably another 100,000 will die before the end of February, bringing the total number of deaths to over half a million, in less than twelve months.

The new Biden Administration has created a 200-page federal plan for COVID-19 response and pandemic preparedness. The details will be daunting, but the returns will be manifest. This must be done at the federal level, and it is about time.

Allen C. Goodman
Professor of Economics